



iibm internships

Get Ready for Industry 4.0 Revolution

Learners received an average
salary hike of 50%*

Master Program in **Data Science**

9 Months

Online



As Featured In:



Business Standard

hindustantimes



THE HANS INDIA

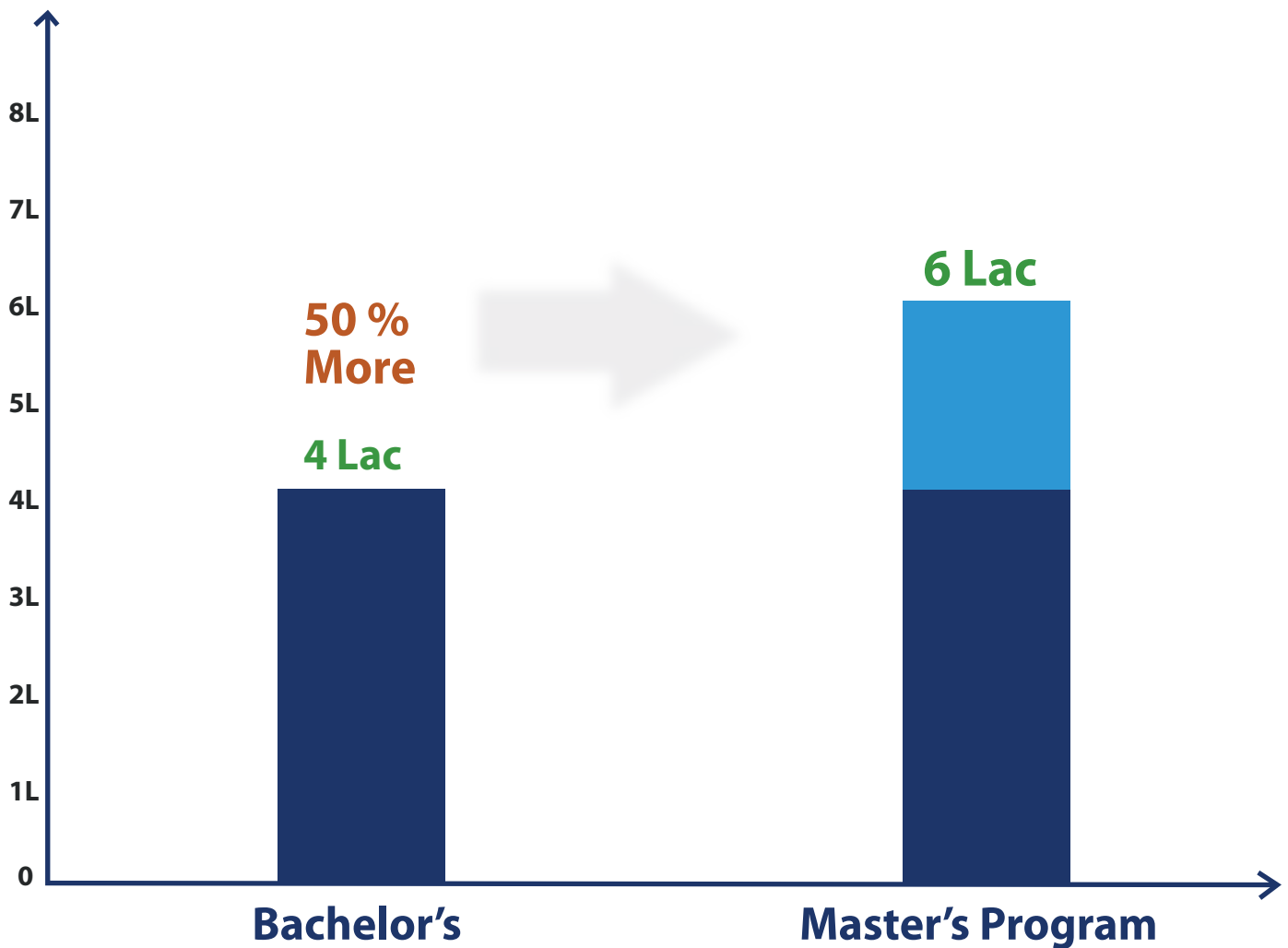
YOUR
STORY

Annual Income

Bachelors Vs Masters Program

Annual Income

Full-time workers age 25 to 34



IIBM CANDIDATES WORKING IN COMPANIES BELOW

25,000+

SUCCESS STORIES

MOOL CHAND SHARMA
BHAVESH SHARMA
ANKIT KUKRETI
TRISHLA BHAGAT
RAJEEV MADHAVAN
ZAFFAR JAVID NOOR
GURBAKHS SINGH BAVEJA
DEEPAK KUMAR JHA
PNVL SAI KARAN
DEB SHANKAR LAHIRI
PETER DONKOR
SRI RAMJI S.K.G.
BHAVESH SHARMA
BABU THOMAS
SAUMYAJIT PANJA
NIDEESH GK
ANURADHA SHARMA
VICTOR MBAJJA
DEEPAK SINGH
SHIVANI GUPTA
MANIKANDAN SIVALINGAM
JAYVEER KUMAR SINGH
RAMAKANT
VINAYAK SAYANNA MADUR
J RAJKUMAR
TRISHLA BHAGAT
NAYAN KUMAR ROOJ
ABHI DUTTA
KIRTHI PONNAPPA
MOOL CHAND PANDIT
AJAY HARIVADAN RANA
A. SARFRAS NAWAS
GAYATHRI. R
BABU THOMAS
PRATIK PAVAN CHAPLOT
DILBAG SINGH
RAVI NARABOYINA
SANDEEP SHARMA
NITESH SHARMA
AKHILESH KUMAR M.D.
GURBAKHS SINGH BAVEJA
PRADEEPA SADASHIVA
JURI BHARAT KALITA
SANDEEP SHARMA
VIJAY ATCHUTHAM INJETY
SANDEEP SHARMA
SANJAY TIWARI
KIRTHI PONNAPPA
GANESH GUPTA
RAGINI SETH
NAVEEN KUMAR
NITESH KUMAR

ABOUT US

- Edtech Company **Since 2008**
- **25,000+** Learners
- **450+** Employees
- **40+** Courses
- **1,20,000 Sq. Ft.** Infrastructure
- Member of **AIMA, MMA,CII, D&B, FIEO**

WHY THIS PROGRAM WITH IIBM ?

CURRICULUM

EXPERIENTIAL LEARNING

Engaging case studies, projects, for effective learning.

INDUSTRY ENDORSED CURRICULUM

Learn about popular tools and techniques used by most of Data Analysts and Data Scientists.

EMPLOYMENT ASSISTANCE

CAREER SERVICES

Career support through mock interviews, resume building and interview preparation workshops.

PLACEMENT ASSURANCE

Interview opportunities with leading companies and startups.

TECH- ENABLED LEARNING

SMART CLASSROOM

Learning in technologically- augmented classrooms, enhanced with live lecture recording.

LMS

Exclusive access to IIBM learning portal for additional learning and assessments.

INDUSTRY CONNECT

INDUSTRY MENTORSHIP

Dedicated industry leaders to guide you through career- related queries.

AWARDS AND ACCOLADES

- **"Emerging Data Science Institute of the year"**
Awards 2021 by WBR Corporation.
- **"National Education Excellence"**
Awards 2019 for most "Reliable Online Education & Training Institute."
- **"Education Leadership Award"**
winner by "BBC Knowledge" 2017 at Taj Lands End Mumbai.
- **"Indian Education Congress Award"**
winner for "Excellence in Distance Learning Education" 2017.
- **"Pride of Indian Education Awards"**
for "Best Online Institute for Management Courses 2019."
- **"Education Leadership Award 2018"**
for Innovation by most "Promising Online Education & Training Institute."
- **"Global Education Awards 2018"**
for "Emerging Management Education Online Solution."
- **"World Education Award 2017"**
winner in "Innovation by Management Institute."

IIBM's DATA SCIENCE

- Advanced Job Skills
- 100% Placement
- Industry Assessed Projects
- Online Training



WHO SHOULD ENROLL ?

This program caters to graduates in any discipline and working Professionals from diverse backgrounds. Candidates need not have any prior experience to enroll in this program :-

- Professionals at any career stage, looking to turn large volumes of data into actionable insights.
- Past learners' job roles have included: Business Intelligence Analysts, Management Consultants, Technical Managers, Business Managers, Data Science Managers.
- Data Science enthusiasts and IT professionals.
- Background knowledge of statistical techniques and data calculations or quantitative methods of data research is strongly recommended.
- Familiarity with either R or Python is recommended but not required.

TALK TO ADMISSION COUNSELLOR

We have a team of dedicated admissions counselors who are here to help guide you in applying to the program. They are available to:

- Address questions related to the application
- Assist with financial aid (if required)
- Help you resolve your questions and understand the program

DATA SCIENCE PROGRAMS

S.NO.	Course Name	Duration	Certificates	Lumpsum	Installment
1.	Master Program in Business Analytics	9 Months	• Master Program in Business Analytics • Tableau Certificate	Rs. 45,000 +18% GST	Rs. 50,000 +18% GST
2.	Master Program in Data Science	9 Months	• Master Program in Data Science • Business Analyst Certificate	Rs. 45,000 +18% GST	Rs. 50,000 +18% GST
3.	Master Program in Machine Learning and Artificial Intelligence	9 Months	• Master Program in Machine Learning and Artificial Intelligence • Big Data Certificate	Rs. 55,000 +18% GST	Rs. 60,000 +18% GST
4.	Master Program in Big Data Engineering	9 Months	• Master Program in Big Data Engineering • Business Analyst Certificate	Rs. 55,000 +18% GST	Rs. 60,000 +18% GST

CERTIFICATION

Upon completion of the Master Program in Data Science, aspirants will receive an Industry-endorsed certificate.



IIBM Institute of Business Management

Certificate of Achievement

This is to certify that

Malay Kumar Ghosh

Has successfully completed training program
and study requirements of the Institute and awarded

**MASTER PROGRAM IN
DATA SCIENCE**



G20/07/DL1234

CERTIFICATE ID

July - 2020

MONTH-YEAR

A handwritten signature in black ink, appearing to read 'Dhiman'.

PROGRAM DIRECTOR

MASTER PROGRAM IN BUSINESS ANALYTICS

COURSE HIGHLIGHTS

- Video Tutorials : 155+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 15+
- In Class Projects : 15+
- No. Of Quiz : 1200+

ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

COURSE DURATION

9 Months

CURRICULUM

MODULE 1 Business Analysis

MODULE 2 Data Science with R

MODULE 3 SQL Database

MODULE 4 Data Analytics

MODULE 5 Data Science with Python

MODULE 6 Machine Learning

MODULE 7 Data Visualization using Tableau

COURSE FEES

Lumpsum Fees Rs. 45,000 + GST 18 % applicable

Installment Rs. 50,000 + GST 18 % applicable				
Registration Amount	EMI 1	EMI 2	EMI 3 + Exam Fees	EMI 4 + GST 18%
10,000	15,000	15,000	10,000 + 6,000	9,000

*Exam Fees of 6000/- applicable for complete course.

*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

CERTIFICATE AWARDED

• Master Program in Business Analytics

• Tableau Certificate

CURRICULUM

Module 1 BUSINESS ANALYSIS	
Topic	Content Covered
BA Introduction and Fundamentals	Business Analyst – Who, What, Why? BA – qualities, skills, roles, responsibilities Fundamentals of Business Analysis Hierarchical Structure of IT Team IIBA, BABOK, CBAP, CCBA Overview CMMI Overview Project Stakeholder Types of Stakeholder Software Project and Types of Software Project Software Contract and Types of Software Contract
Software Development Life Cycle (SDLC)	Introduction of SDLC Need of a BA in SDLC Phases of SDLC "SDLC Methods --> Waterfall Model and Agile, Scrum --> Iterative and Incremental --> V Model and Spiral Model" "SDLC --> Pre-requisites and Activities --> Common Criteria and Deliverables" Software Maintenance lifecycle model Software testing lifecycle model
Requirement Engineering	Why do we need good Requirements Why do Project Fail? Importance of Requirement – Statistics What is Requirements Engineering Role of a Business Analyst
Requirements	What are requirements? And Characteristics of Requirements Types of Requirements Business Requirements User Requirements and System Requirements Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements
Requirements Process Flow and Requirements Framework	Initial Exploration Form Business Requirements Provide Solution to satisfy Business Requirements Create Functional Specifications/Use Cases Validate Requirements with Customer Form SRS and Seek Approval Requirements Framework
Requirements Elicitation	Sources of Requirement Elicitation Skills for Requirement Elicitation Stakeholder Identification Surveys and Questionnaire Interviewing and Focus Group Interviews Brainstorming and Reverse Engineering Prototyping and Wire Frames JAD – Joint Application Development Observation and Task Analysis Domain Analysis and Persona Challenges in Requirement Elicitation
Requirements Analysis	Classifying and Prioritizing Requirements Fish Bone Diagram – Causal Effect Pareto's Diagram – 80:20 Rule Moscow Prioritization Kano Analysis Requirements Allocation and Validation Requirements Pre-Review and Review Requirements Walkthrough and Sign Off
Requirements Specification	How to write Business Requirement document? How to write Software Requirement specification Introduction to Software Requirement Specification Understanding SRS syntax with IEEE Standards What are Use Case and Use Case Narrative? Relationship between Use Cases How to write Use Cases? Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow Activity Diagram, Class Diagram, E-R Model, Sequence Diagram, State Diagram, Collaboration Diagram
Requirement Engineering Project with Cases – Phase 1	Business Process of existing system GAP Analysis – PIECES Framework Domain Properties and Stakeholders Feasibility Study Evaluation of Alternatives using Cost – Benefit Analysis
Requirement Engineering Project with Cases – Phase 2	Use case Description and Use Case Diagram Activity Diagram What are Use Case and Use Case Narrative? Relationship between Use Cases How to write Use Cases? Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow Pre-condition, Post-condition, Exception handling and Triggers
Requirement Engineering Project with Cases – Phase 3	Sequence Diagram Class Diagram Software Requirement Specification
Requirements Management	RTM - Requirements Traceability Matrix Requirements Change Management Requirements Risk Management Impact Analysis

Topic	Content Covered
Scope Management	Different dimensions of scope Managing Scope at different stages of the Project Product Scope and Project Scope Issues in scope management Measurement of Scope and Metrics
Risk Management	Steps in Risk Management Risk Identification Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners Risk Monitoring and Control Risk Management Documents
Estimation Management	Introduction to Estimation The Importance of Estimation What is Estimation? The Estimation Process Overview Problems with Estimations Estimation Techniques
Customer Expectation Management	Importance of CEM Traditional and modern view Understanding Customer and Managing Expectations Issues in Customer Expectation Management Handling Difficult Situations Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System Concept of Quality Metrics and Measurements Defect Preventions Defect analysis tools and techniques
Business Communication Management	Communication: Introduction Email Communication Teleconference and Meetings Assertiveness and Scenarios
Requirement Process, Planning and Management	Understanding IT project hierarchy Project Charter and Requirements Process RACI Matrix and Requirements Planning Work Efforts & Estimations Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping Types of Prototyping Prototyping as methodology User Interface Prototyping Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD) Use case document (USD) Software Requirement Specification Document (SRS) Change Request Process Document Functional Requirement Specification (FSD) Business Process Questionnaire Document Project Requirement Management and development process Document Scope management Document Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram Sequence Diagram and Collaboration Diagram Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro Microsoft Visio – UML Tool Team Foundation Server (TFS) JIRA – Agile Tool SVN – Configuration Management Tool Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation High-level Project and Process Plan Sprint Planning Meeting The Sprint and Daily Scrum Meetings Sprint Review Meeting Sprint Retrospective Next Sprint and Repeat Post-Sprint Functional Testing by PO Pre-release Testing prior to Release to Customer Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project Requirement Management Process – For Maintenance Project Change Request (CR) Process
Software Project Management	What is Project Management? Project Management Phases Project Management Knowledge Areas Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction BABOK Knowledge Areas Business Analysis Planning Enterprise Analysis Requirement Elicitation Requirement Analysis Solution Assessment and Validation Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives Business Intelligence Perspectives Information Technology Perspectives Business Architecture Perspectives Business Process Management Perspectives

Module 2

DATA SCIENCE WITH R

Topic	Content Covered
Introduction of R	What and Why R? Different flavors of R and R - Installation Libraries in R Studio-Work Directory Setup
Data Structures used in R	R-Data Types, Operators R-Keywords and Exceptions ,Functions R-Data Structures and R Interfaces
Data Visualization using R	Line Plots, Bar Charts, Pie Chart and Histogram Scatter Plots and Parallel Coordinates Advanced Plotting and Other Plotting Packages
Predictive Customer Analysis using R - Linear Regression	Linear Regression Analysis Formulation of Bivariate and Multivariate Regression Model Mapping Regression with Real Time Example
Bank Loan Modelling using R - Logistic Regression	Logistic Function Single and Multiple Predictor Model Determine Logistic Cut off Estimated Equation for Logistic Regression
Sales Promotion Effectiveness - Dimension Reduction using R - Factor Analysis	Factor Analysis Model Principal Component Analysis(PCA) Method Rotation Method Mapping Factor Analysis with Real Time Example
Customer and Market Segmentation - Cluster Analysis using R	Cluster Analysis Introduction Classification of Clustering Procedure Hierarchical Clustering Non Hierarchical Clustering
Retail Analysis : Market Based Analysis - Association Rule using R software	Association Rule Introduction Apriori Algorithm - Multiple Association Rules Market Basket Analysis (MBA) Application of Apriori Algorithm and Market Basket Analysis
Customer Loyalty Analytics - Naïve Bayes Classification using R Software	Naïve Bayes Theorem Characteristics of Naïve Bayes Real Time Case study using Naïve Bayes Advantage and Shortcoming of Naïve Bayes
K - Nearest Neighbour using R software	K – Nearest Neighbour Algorithm Choosing “K” and High “K” vs. Low “K” Real Time case study using KNN Advantage and Disadvantage of KNN
Decision Trees using R software	Creation of Decision Tree Entropy and Information Gain with Intuitions Forward Pruning and Backward Pruning Sub tree Replacement and Raising Real time case study with Decision Tree
Random Forest using R software	Ensample of Decision Tree

Module 3

SQL DATABASE

Topic	Content Covered
Fundamentals of SQL Database	Introduction RDBMS Constraints Normalisation Syntax Operators Database queries Table queries Indexes Handling duplicates

Module 4		DATA ANALYTICS
Topic	Content Covered	
Fundamental of Data Analytics	Data Analytics across Domains What is Analytics? Types of Analytics AI vs ML vs DL vs DS	
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem Measures of Central Tendancies and Measures of Spread Descriptive Statistics with Real Time Examples Measuring Scales Inferential Statistics with Real Time Examples	
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test Introduction to Statistical Tests Statistical Test with Real Time Example Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA) Probability Theory for Data Analytics Types of Probability Distribution	
Module 5		DATA SCIENCE WITH PYTHON
Topic	Content Covered	
Python Fundamentals	Python Intro,IDE and Python Packages Python Programming Python Data Types - Dictionary, List and Set	
Python Packages	Numpy Packages - Array Handling and Manupulation Pandas Packages - Dataframe and Loading Excel, CSV File Matplotlib Packages - Line graph and Visualisation	
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis	
Python - Control Structures	Python - Operators and String Manupulation Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)	
Exporatory Data Analysis (EDA)	Python - Data Preparation Process Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods	
Python - Predictive Analytics	Python - Time Series Analysis and Forcasting Python - Simple Predictive Analysis	
Data Science Lifecycle	Data Science with Python Data Science Application across Multiple Domain and Business Function Data Science Project LifeCycle	
Data Science Prediction Algorithm	Multiple Predictive Model using Python Python - Simple and Multiple Predictive Model in Practical Python Correlation Analysis Python Classifcation Model Building	
Data Science Classification Algorithm	Data Science - Experimental Design Analysis Classifcation Technique - Discriminant Analysis Data Science - Association Rule - Apriori Algorithm Data Science - Building Recommendation System - (Market Basket Analysis)	
Data Science - Image Regognition	Data Architecture Design, Data Warehousing and it's Schema Design Image Processing and Image Extraction Image Processing and Object Recognition Summarisation of Data Science Algorithm (Data Science Process)	
Module 6		MACHINE LEARNING
Topic	Content Covered	
Machine Learning Introduction	Machine Learning Introduction	
Supervised Learning - Regression Algorithm	Linear Regression Logistics Regression ANOVA and ANCOVA Linear Discriminant Analysis	
Supervised Learning - Classification Algorithm	Naïve Bayes K-Nearest Neighbour SVM- Support Vector Machine -Decision Tree and Random Forest	
Unsupervised Learning Algorithm	Factor Analysis Cluster Analysis Association Rule Correlation	
Time Series	Time Series Analysis	

Module 7

DATA VISUALIZATION USING TABLEAU

Topic	Content Covered
Tableau Introduction	Line Plots and Bar Charts Pie Chart and Histogram Scatter Plots and Parallel Coordinates
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File Creating Calculated Fields,Adding Colors and Labels Time series, Aggregation, Filters and Level of Detail
Tableau Different types of joins	Working with Hierarchies,Joining and Blending Data Dual Axis Charts, Creating Bins and Tree Map Chart Creation of Dashboard and Storyline Creating an Area Chart & Adding a Filter and Quick Filter Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
Tableau Data Blending	Joining Data vs. Blending Data Data Blending in Tableau Creating Calculated Fields in a Blend
Tableau Storyline Creation	Time series, Aggregation and Filters Working with Data Extracts in Tableau Working with Time Series Understanding Aggregation, Granularity
Tableau Data Interpreters and cleaning	Advanced Data Preparation Data Interpreter and Pivot Splitting a Column into Multiple Columns Metadata Grid and Fixing Geographical Data Errors
Tableau Dashboard Concepts	Maps, Scatterplots Joining Data in Tableau Working with Hierarchies Creating a Scatter Plot
Tableau Cluster Creation and Modelling	Cluster Analysis introduction Classification of clustering procedure Hierarchical clustering and non Hierarchical clustering
Tableau Regression Analysis	Linear Regression Analysis Formulation of Regression Model Conducting Bivariate and Multivariate Regression Regression with Real Time Example
Tableau Step Up	Tool Tip Analysis and Grouping Table Calculations, Advanced Dashboards, Storytelling

CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition

MASTER PROGRAM IN DATA SCIENCE

COURSE HIGHLIGHTS

- Video Tutorials : 185+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 20+
- In Class Projects : 15+
- No. Of Quiz : 1500+

ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

COURSE DURATION

9 Months

CURRICULUM

MODULE 1 Business Analysis

MODULE 2 Data Science with R

MODULE 3 Data Analytics

MODULE 4 Data Science with Python

MODULE 5 Machine Learning

MODULE 6 Deep Learning

MODULE 7 Natural Language Processing

MODULE 8 Data Visualization using Tableau

MODULE 9 Big Data

MODULE 10 Power BI

COURSE FEES

Lumpsum Fees Rs. 45,000 + GST 18 % applicable

Installment Rs. 50,000 + GST 18 % applicable				
Registration Amount	EMI 1	EMI 2	EMI 3 + Exam Fees	EMI 4 + GST 18%
10,000	15,000	15,000	10,000 + 6,000	9,000

*Exam Fees of 6000/- applicable for complete course.

*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

CERTIFICATE AWARDED

• Master Program in Data Science

• Business Analyst Certificate

CURRICULUM

Module 1		BUSINESS ANALYSIS
Topic	Content Covered	
BA Introduction and Fundamentals	Business Analyst – Who, What, Why? BA – qualities, skills, roles, responsibilities Fundamentals of Business Analysis Hierarchical Structure of IT Team IIBA, BABOK, CBAP, CCBA Overview CMMI Overview Project Stakeholder Types of Stakeholder Software Project and Types of Software Project Software Contract and Types of Software Contract	
Software Development Life Cycle (SDLC)	Introduction of SDLC Need of a BA in SDLC Phases of SDLC "SDLC Methods --> Waterfall Model and Agile, Scrum --> Iterative and Incremental --> V Model and Spiral Model" "SDLC --> Pre-requisites and Activities --> Common Criteria and Deliverables" Software Maintenance lifecycle model Software testing lifecycle model	
Requirement Engineering	Why do we need good Requirements Why do Project Fail? Importance of Requirement – Statistics What is Requirements Engineering Role of a Business Analyst	
Requirements	What are requirements? And Characteristics of Requirements Types of Requirements Business Requirements User Requirements and System Requirements Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements	
Requirements Process Flow and Requirements Framework	Initial Exploration Form Business Requirements Provide Solution to satisfy Business Requirements Create Functional Specifications/Use Cases Validate Requirements with Customer Form SRS and Seek Approval Requirements Framework	
Requirements Elicitation	Sources of Requirement Elicitation Skills for Requirement Elicitation Stakeholder Identification Surveys and Questionnaire Interviewing and Focus Group Interviews Brainstorming and Reverse Engineering Prototyping and Wire Frames JAD – Joint Application Development Observation and Task Analysis Domain Analysis and Persona Challenges in Requirement Elicitation	
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Requirement Engineering Project with Cases – Phase 3	Sequence Diagram Class Diagram Software Requirement Specification	
Requirements Management	RTM - Requirements Traceability Matrix Requirements Change Management Requirements Risk Management Impact Analysis	

Topic	Content Covered
Scope Management	Different dimensions of scope Managing Scope at different stages of the Project Product Scope and Project Scope Issues in scope management Measurement of Scope and Metrics
Risk Management	Steps in Risk Management Risk Identification Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners Risk Monitoring and Control Risk Management Documents
Estimation Management	Introduction to Estimation The Importance of Estimation What is Estimation? The Estimation Process Overview Problems with Estimations Estimation Techniques
Customer Expectation Management	Importance of CEM Traditional and modern view Understanding Customer and Managing Expectations Issues in Customer Expectation Management Handling Difficult Situations Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System Concept of Quality Metrics and Measurements Defect Preventions Defect analysis tools and techniques
Business Communication Management	Communication: Introduction Email Communication Teleconference and Meetings Assertiveness and Scenarios
Requirement Process, Planning and Management	Understanding IT project hierarchy Project Charter and Requirements Process RACI Matrix and Requirements Planning Work Efforts & Estimations Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping Types of Prototyping Prototyping as methodology User Interface Prototyping Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD) Use case document (USD) Software Requirement Specification Document (SRS) Change Request Process Document Functional Requirement Specification (FSD) Business Process Questionnaire Document Project Requirement Management and development process Document Scope management Document Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram Sequence Diagram and Collaboration Diagram Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro Microsoft Visio – UML Tool Team Foundation Server (TFS) JIRA – Agile Tool SVN – Configuration Management Tool Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation High-level Project and Process Plan Sprint Planning Meeting The Sprint and Daily Scrum Meetings Sprint Review Meeting Sprint Retrospective Next Sprint and Repeat Post-Sprint Functional Testing by PO Pre-release Testing prior to Release to Customer Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project Requirement Management Process – For Maintenance Project Change Request (CR) Process
Software Project Management	What is Project Management? Project Management Phases Project Management Knowledge Areas Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction BABOK Knowledge Areas Business Analysis Planning Enterprise Analysis Requirement Elicitation Requirement Analysis Solution Assessment and Validation Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives Business Intelligence Perspectives Information Technology Perspectives Business Architecture Perspectives Business Process Management Perspectives

Module 2		DATA SCIENCE WITH R
Topic	Content Covered	
Introduction of R	What and Why R? Different flavors of R and R - Installation Libraries in R Studio-Work Directory Setup	
Data Structures used in R	R-Data Types, Operators R-Keywords and Exceptions ,Functions R-Data Structures and R Interfaces	
Data Visualization using R	Line Plots, Bar Charts, Pie Chart and Histogram Scatter Plots and Parallel Coordinates Advanced Plotting and Other Plotting Packages	
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Bank Loan Modelling using R - Logistic Regression	Logistic Function Single and Multiple Predictor Model Determine Logistic Cut off Estimated Equation for Logistic Regression	
Sales Promotion Effectiveness - Dimension Reduction using R - Factor Analysis	Factor Analysis Model Principal Component Analysis(PCA) Method Rotation Method Mapping Factor Analysis with Real Time Example	
Customer and Market Segmentation - Cluster Analysis using R	Cluster Analysis Introduction Classification of Clustering Procedure Hierarchical Clustering Non Hierarchical Clustering	
Retail Analysis : Market Based Analysis - Association Rule using R software	Association Rule Introduction Apriori Algorithm - Multiple Association Rules Market Basket Analysis (MBA) Application of Apriori Algorithm and Market Basket Analysis	
Customer Loyalty Analytics - Naïve Bayes Classification using R Software	Naïve Bayes Theorem Characteristics of Naïve Bayes Real Time Case study using Naïve Bayes Advantage and Shortcoming of Naïve Bayes	
K - Nearest Neighbour using R software	K – Nearest Neighbour Algorithm Choosing “K” and High “K” vs. Low “K” Real Time case study using KNN Advantage and Disadvantage of KNN	
Decision Trees using R software	Creation of Decision Tree Entropy and Information Gain with Intuitions Forward Pruning and Backward Pruning Sub tree Replacement and Raising Real time case study with Decision Tree	
Random Forest using R software	Ensample of Decision Tree	

Module 3		DATA ANALYTICS
Topic	Content Covered	
Fundamental of Data Analytics	Data Analytics across Domains What is Analytics? Types of Analytics AI vs ML vs DL vs DS	
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem Measures of Central Tendancies and Measures of Spread Descriptive Statistics with Real Time Examples Measuring Scales Inferential Statistics with Real Time Examples	
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test Introduction to Statistical Tests Statistical Test with Real Time Example Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA) Probability Theory for Data Analytics Types of Probability Distribution	

Module 4

DATA SCIENCE WITH PYTHON

Topic	Content Covered
Python Fundamentals	Python Intro,IDE and Python Packages Python Programming Python Data Types - Dictionary, List and Set
Python Packages	Numpy Packages - Array Handling and Manupulation Pandas Packages - Dataframe and Loading Excel, CSV File Matplotlib Packages - Line graph and Visualisation
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis
Python - Control Structures	Python - Operators and String Manupulation Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)
Exporatory Data Analysis (EDA)	Python - Data Preparation Process Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods
Python - Predictive Analytics	Python - Time Series Analysis and Forecasting Python - Simple Predictive Analysis
Data Science Lifecycle	Data Science with Python Data Science Application across Multiple Domain and Business Function Data Science Project LifeCycle
Data Science Prediction Algorithm	Multiple Predictive Model using Python Python - Simple and Multiple Predictive Model in Practical Python Correlation Analysis Python Classifcation Model Building
Data Science Classification Algorithm	Data Science - Experimental Design Analysis Classifcation Technique - Discriminant Analysis Data Science - Association Rule - Apriori Algorithm Data Science - Building Recommendation System - (Market Basket Analysis)
Data Science - Image Regognition	Data Architecture Design, Data Warehousing and it's Schema Design Image Processing and Image Extraction Image Processing and Object Recognition Summarisation of Data Science Algorithm (Data Science Process)

Module 5

MACHINE LEARNING

Topic	Content Covered
Machine Learning Introduction	Machine Learning Introduction
Supervised Learning - Regression Algorithm	Linear Regression Logistics Regression ANOVA and ANCOVA Linear Discriminant Analysis
Supervised Learning - Classification Algorithm	Naïve Bayes K-Nearest Neighbour SVM- Support Vector Machine -Decision Tree and Random Forest
Unsupervised Learning Algorithm	Factor Analysis Cluster Analysis Association Rule Correlation
Time Series	Time Series Analysis



The Data Science with IIBM Institute of Business Management is really useful. I liked the mode of teaching and the mode of completing the course chapters in an explanatory way. The instrutor is friendly and poised the approach. I am sure the course will help me to explore career in Data Science.

-VIBHOR KUMAR

Data Analyst

INNOLABZ VENTURES PVT. LTD.

Module 6		DEEP LEARNING
Topic	Content Covered	
Deep Learning and Neural Networks Overview	Deep Learning Fundamentals Working of Neural Networks Gradient Descent and Back Propagation Decession Tree Activation Function	
Tensorflow	Tensorflow Introduction	
Keras Basics	Building Artificial Neural Networks (ANN) Deep Learning-Overview Deep Learning-ANN-classification	
Computer Vision	Computer-Vision-opencv-part1-overview Computer-Vision-opencv-part2-face_detection Intro to CNN	
Recurrent Neural Network	Introduction to RNN & Sequence prediction using RNN Introduction to LSTM	
Long short-term memory	Introduction to LSTM Sequence prediction using LSTM Applications in text analytics Stock prediction Time series data	
Module 7		NATURAL LANGUAGE PROCESSING
Topic	Content Covered	
Natural Language Processing Basics	Basics of NLP NLP- tolinisation Removing Stop Words Stemming & lemmatization Parts of speech tagging TFIDF vectorizer Bag of words Senmiment Analysis	
Natural Language Processing Advanced	Text Classification with Linear Models Language Modelling with Probabilistic Graphical Models and Neural Networks Word Embeddings and Topic Models Machine Translation and Sequence-To-Sequence Models	
Speech Recognition	NLP-Speech-Recognition-and-Text-to-Speech	
Reinforcement Learning	Introduction to Reinforcement Learning Model-Based Reinforcement Learning (Dynamic Programming)Model-Free Reinforcement Learning (SARSA, Monte Carlo, Q-Learning) Approximate and Deep Reinforcement Learning (Deep Q- Learning) Policy Gradient Reinforcement Learning Advanced Topics on Exploration and Planning	
Module 8		DATA VISUALIZATION USING TABLEAU
Topic	Content Covered	
Tableau Introduction	Line Plots and Bar Charts Pie Chart and Histogram Scatter Plots and Parallel Coordinates	
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File Creating Calculated Fields,Adding Colors and Labels Time series, Aggregation, Filters and Level of Detail	
Tableau Different types of joins	Working with Hierarchies,Joining and Blending Data Dual Axis Charts, Creating Bins and Tree Map Chart Creation of Dashboard and Storyline Creating an Area Chart & Adding a Filter and Quick Filter Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work	
Tableau Data Blending	Joining Data vs. Blending Data Data Blending in Tableau Creating Calculated Fields in a Blend	
Tableau Storyline Creation	Time series, Aggregation and Filters Working with Data Extracts in Tableau Working with Time Series Understanding Aggregation, Granularity	
Tableau Data Interpreters and cleaning	Advanced Data Preparation Data Interpreter and Pivot Splitting a Column into Multiple Columns Metadata Grid and Fixing Geographical Data Errors	
Tableau Dashboard Concepts	Maps, Scatterplots Joining Data in Tableau Working with Hierarchies Creating a Scatter Plot	

Topic	Content Covered
Tableau Cluster Creation and Modelling	Cluster Analysis introduction Classification of clustering procedure Hierarchical clustering and non Hierarchical clustering
Tableau Regression Analysis	Linear Regression Analysis Formulation of Regression Model Conducting Bivariate and Multivariate Regression Regression with Real Time Example
Tableau Step Up	Tool Tip Analysis and Grouping Table Calculations, Advanced Dashboards, Storytelling

Module 9 **BIG DATA**

Topic	Content Covered
Introduction of Big Data	Introduction of Big Data
Hadoop	Linus Commands HDFS Commands SQOOP Architecture and Hands-on : Import data from Target RDBMS TO HDFS Usecase: with and without Primary key and Incremental Load Usecase: Import all tables at a time and Exclude Tables Usecase: Creation of Sqoop Job and Use Condition Usecase: Data Import and Export from RDBMS and Hive Table
HIVE Architecture and Hands-on	Different Types OF Tables In Hive and Partitioning Partitioning and Bucketing How to Perform Both Partitioning and Bucketing using one table Joins(Reducer Side Joins and MapSide Joins) HIVE: File Formats, Semi structured Data, Updation and Deletion, UDF and Complex Types
HBASE Architecture and Hands-on	Difference Between Hive,SQL and HBASE How to create tables,insert,update and delete How to import data from rdbms to HBASE using Sqoop How to Load CSV DATA INTO HBASE TABLE HIVE to HBASE INTEGRATION
PIG and MapReduce	PIG and MapReduce
Scala	Scala - Variables, In Built Functions Scala - Control Structures and String Manipulations Scala - Collections, File and Exceptions Handling and Traits
SPARK vs MapReduce	Spark - Architecture, File Operations, Spark Shell Spark - Spark Context Creation, Cache and Persist Spark Project with Maven in Eclipse RDD: Transformations and Actions and Data Loading RDD: Key Value Pair, Operations and Spark Application with Spark Shell Deploying Application with Spark submit Spark SQL : Introduction with different file Formats SPARK SQL: DataFrames, DAG, Lineage Graph, Cluster types Optimizers, Structured Streaming,RDDs to Relations
SPARK Streaming	Spark Streaming - Introduction and Architecture SparkStreaming vs Flume Kafka Introduction and Architecture Spark Streaming integration with Kafka Overview Real Time Examples

Module 10 **POWER BI**

Topic	Content Covered
BI Introduction	Power BI services Advantages of visual analytics
Power BI Desktop	Installation Process of Power BI desktop and getting familiar with interface
Working with Query Editor	Filters Splitting columns Groups Merging Conditional Columns
Data Modelling	Cardinality Cross Filters DAX Functions
Creating Visuals In Report View	Different types of visual features Drill Down Formatting Visuals
Taking Project to cloud	How to export Desktop Reports to cloud service and explore my workspace, sharing with other

CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Artificial Intelligence	Telecom Churn case study using Sklearn
	Handwritten Digit classification using ANN
	Recommendation Engine
	Sentiment Analyser
	Building Chatbot
	SMS Spam Classifier
	Twitter Sentiment Analyser
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition



Brilliant course and excellent study material and faculty support! It's a great professional course that can help you in carving a career in Data Science. I will highly recommend it to aspirants interested in pursuing a professional career in Data Science.

- SOUVIK BANERJEE

MASTER PROGRAM IN MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

COURSE HIGHLIGHTS

- Video Tutorials : 220+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 20+
- In Class Projects : 15+
- No. Of Quiz : 1800+

ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

COURSE DURATION

9 Months

CURRICULUM

MODULE 1 Business Analysis

MODULE 2 Data Science with R

MODULE 3 SQL Database

MODULE 4 Data Analytics

MODULE 5 Data Science with Python

MODULE 6 Machine Learning

MODULE 7 Deep Learning

MODULE 8 Natural Language Processing

MODULE 9 Data Visualization Using Tableau

MODULE 10 Big Data

MODULE 11 Power BI

COURSE FEES

Lumpsum Fees Rs. 55,000 + GST 18 % applicable

Installment Rs. 60,000 + GST 18 % applicable					
Registration Amount	EMI 1	EMI 2	EMI 3	EMI 4 + Exam Fees	EMI 5 + GST 18%
10,000	15,000	15,000	15,000	5,000 + 6,000	10,800

*Exam Fees of 6000/- applicable for complete course.

*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

CERTIFICATE AWARDED

- Master Program in Machine Learning and Artificial Intelligence
- Big Data Certificate

CURRICULUM

Module 1		BUSINESS ANALYSIS
Topic	Content Covered	
BA Introduction and Fundamentals	Business Analyst – Who, What, Why? BA – qualities, skills, roles, responsibilities Fundamentals of Business Analysis Hierarchical Structure of IT Team IIBA, BABOK, CBAP, CCBA Overview CMMI Overview Project Stakeholder Types of Stakeholder Software Project and Types of Software Project Software Contract and Types of Software Contract	
Software Development Life Cycle (SDLC)	Introduction of SDLC Need of a BA in SDLC Phases of SDLC "SDLC Methods --> Waterfall Model and Agile, Scrum --> Iterative and Incremental --> V Model and Spiral Model" "SDLC --> Pre-requisites and Activities --> Common Criteria and Deliverables" Software Maintenance lifecycle model Software testing lifecycle model	
Requirement Engineering	Why do we need good Requirements Why do Project Fail? Importance of Requirement – Statistics What is Requirements Engineering Role of a Business Analyst	
Requirements	What are requirements? And Characteristics of Requirements Types of Requirements Business Requirements User Requirements and System Requirements Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements	
Requirements Process Flow and Requirements Framework	Initial Exploration Form Business Requirements Provide Solution to satisfy Business Requirements Create Functional Specifications/Use Cases Validate Requirements with Customer Form SRS and Seek Approval Requirements Framework	
Requirements Elicitation	Sources of Requirement Elicitation Skills for Requirement Elicitation Stakeholder Identification Surveys and Questionnaire Interviewing and Focus Group Interviews Brainstorming and Reverse Engineering Prototyping and Wire Frames JAD – Joint Application Development Observation and Task Analysis Domain Analysis and Persona Challenges in Requirement Elicitation	
Requirements Analysis	Classifying and Prioritizing Requirements Fish Bone Diagram – Causal Effect Pareto's Diagram – 80:20 Rule Moscow Prioritization Kano Analysis Requirements Allocation and Validation Requirements Pre-Review and Review Requirements Walkthrough and Sign Off	
Requirements Specification	How to write Business Requirement document? How to write Software Requirement specification Introduction to Software Requirement Specification Understanding SRS syntax with IEEE Standards What are Use Case and Use Case Narrative? Relationship between Use Cases How to write Use Cases? Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow Activity Diagram, Class Diagram, E-R Model, Sequence Diagram, State Diagram, Collaboration Diagram	
Requirement Engineering Project with Cases – Phase 1	Business Process of existing system GAP Analysis – PIECES Framework Domain Properties and Stakeholders Feasibility Study Evaluation of Alternatives using Cost – Benefit Analysis	
Requirement Engineering Project with Cases – Phase 2	Use case Description and Use Case Diagram Activity Diagram What are Use Case and Use Case Narrative? Relationship between Use Cases How to write Use Cases? Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow Pre-condition, Post-condition, Exception handling and Triggers	
Requirement Engineering Project with Cases – Phase 3	Sequence Diagram Class Diagram Software Requirement Specification	
Requirements Management	RTM - Requirements Traceability Matrix Requirements Change Management Requirements Risk Management Impact Analysis	

Topic	Content Covered
Scope Management	Different dimensions of scope Managing Scope at different stages of the Project Product Scope and Project Scope Issues in scope management Measurement of Scope and Metrics
Risk Management	Steps in Risk Management Risk Identification Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners Risk Monitoring and Control Risk Management Documents
Estimation Management	Introduction to Estimation The Importance of Estimation What is Estimation? The Estimation Process Overview Problems with Estimations Estimation Techniques
Customer Expectation Management	Importance of CEM Traditional and modern view Understanding Customer and Managing Expectations Issues in Customer Expectation Management Handling Difficult Situations Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System Concept of Quality Metrics and Measurements Defect Preventions Defect analysis tools and techniques
Business Communication Management	Communication: Introduction Email Communication Teleconference and Meetings Assertiveness and Scenarios
Requirement Process, Planning and Management	Understanding IT project hierarchy Project Charter and Requirements Process RACI Matrix and Requirements Planning Work Efforts & Estimations Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping Types of Prototyping Prototyping as methodology User Interface Prototyping Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD) Use case document (USD) Software Requirement Specification Document (SRS) Change Request Process Document Functional Requirement Specification (FSD) Business Process Questionnaire Document Project Requirement Management and development process Document Scope management Document Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram Sequence Diagram and Collaboration Diagram Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro Microsoft Visio – UML Tool Team Foundation Server (TFS) JIRA – Agile Tool SVN – Configuration Management Tool Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation High-level Project and Process Plan Sprint Planning Meeting The Sprint and Daily Scrum Meetings Sprint Review Meeting Sprint Retrospective Next Sprint and Repeat Post-Sprint Functional Testing by PO Pre-release Testing prior to Release to Customer Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project Requirement Management Process – For Maintenance Project Change Request (CR) Process
Software Project Management	What is Project Management? Project Management Phases Project Management Knowledge Areas Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction BABOK Knowledge Areas Business Analysis Planning Enterprise Analysis Requirement Elicitation Requirement Analysis Solution Assessment and Validation Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives Business Intelligence Perspectives Information Technology Perspectives Business Architecture Perspectives Business Process Management Perspectives

Module 2		DATA SCIENCE WITH R
Topic	Content Covered	
Introduction of R	What and Why R? Different flavors of R and R - Installation Libraries in R Studio-Work Directory Setup	
Data Structures used in R	R-Data Types, Operators R-Keywords and Exceptions ,Functions R-Data Structures and R Interfaces	
Data Visualization using R	Line Plots, Bar Charts, Pie Chart and Histogram Scatter Plots and Parallel Coordinates Advanced Plotting and Other Plotting Packages	
Predictive Customer Analysis using R - Linear Regression	Linear Regression Analysis Formulation of Bivariate and Multivariate Regression Model Mapping Regression with Real Time Example	
Bank Loan Modelling using R - Logistic Regression	Logistic Function Single and Multiple Predictor Model Determine Logistic Cut off Estimated Equation for Logistic Regression	
Sales Promotion Effectiveness - Dimension Reduction using R - Factor Analysis	Factor Analysis Model Principal Component Analysis(PCA) Method Rotation Method Mapping Factor Analysis with Real Time Example	
Customer and Market Segmentation - Cluster Analysis using R	Cluster Analysis Introduction Classification of Clustering Procedure Hierarchical Clustering Non Hierarchical Clustering	
Retail Analysis : Market Based Analysis - Association Rule using R software	Association Rule Introduction Apriori Algorithm - Multiple Association Rules Market Basket Analysis (MBA) Application of Apriori Algorithm and Market Basket Analysis	
Customer Loyalty Analytics - Naïve Bayes Classification using R Software	Naïve Bayes Theorem Characteristics of Naïve Bayes Real Time Case study using Naïve Bayes Advantage and Shortcoming of Naïve Bayes	
K - Nearest Neighbour using R software	K – Nearest Neighbour Algorithm Choosing “K” and High “K” vs. Low “K” Real Time case study using KNN Advantage and Disadvantage of KNN	
Decision Trees using R software	Creation of Decision Tree Entropy and Information Gain with Intuitions Forward Pruning and Backward Pruning Sub tree Replacement and Raising Real time case study with Decision Tree	
Random Forest using R software	Ensample of Decision Tree	
Module 3		SQL DATABASE
Topic	Content Covered	
Fundamentals of SQL Database	Introduction RDBMS Constraints Normalisation Syntax Operators Database queries Table queries Indexes Handling duplicates	

Module 4		DATA ANALYTICS
Topic	Content Covered	
Fundamental of Data Analytics	Data Analytics across Domains What is Analytics? Types of Analytics AI vs ML vs DL vs DS	
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem Measures of Central Tendancies and Measures of Spread Descriptive Statistics with Real Time Examples Measuring Scales Inferential Statistics with Real Time Examples	
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test Introduction to Statistical Tests Statistical Test with Real Time Example Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA) Probability Theory for Data Analytics Types of Probability Distribution	
Module 5		DATA SCIENCE WITH PYTHON
Topic	Content Covered	
Python Fundamentals	Python Intro,IDE and Python Packages Python Programming Python Data Types - Dictionary, List and Set	
Python Packages	Numpy Packages - Array Handling and Manupulation Pandas Packages - Dataframe and Loading Excel, CSV File Matplotlib Packages - Line graph and Visualisation	
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis	
Python - Control Structures	Python - Operators and String Manupulation Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)	
Exporatory Data Analysis (EDA)	Python - Data Preparation Process Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods	
Python - Predictive Analytics	Python - Time Series Analysis and Forecasting Python - Simple Predictive Analysis	
Data Science Lifecycle	Data Science with Python Data Science Application across Multiple Domain and Business Function Data Science Project LifeCycle	
Data Science Prediction Algorithm	Multiple Predictive Model using Python Python - Simple and Multiple Predictive Model in Practical Python Correlation Analysis Python Classifcation Model Building	
Data Science Classification Algorithm	Data Science - Experimental Design Analysis Classifcation Technique - Discriminant Analysis Data Science - Association Rule - Apriori Algorithm Data Science - Building Recommendation System - (Market Basket Analysis)	
Data Science - Image Regognition	Data Architecture Design, Data Warehousing and it's Schema Design Image Processing and Image Extraction Image Processing and Object Recognition Summarisation of Data Science Algorithm (Data Science Process)	
Module 6		MACHINE LEARNING
Topic	Content Covered	
Machine Learning Introduction	Machine Learning Introduction	
Supervised Learning - Regression Algorithm	Linear Regression Logistics Regression ANOVA and ANCOVA Linear Discriminant Analysis	
Supervised Learning - Classification Algorithm	Naïve Bayes K-Nearest Neighbour SVM- Support Vector Machine -Decision Tree and Random Forest	
Unsupervised Learning Algorithm	Factor Analysis Cluster Analysis Association Rule Correlation	
Time Series	Time Series Analysis	

Module 7 DEEP LEARNING

Topic	Content Covered
Deep Learning and Neural Networks Overview	Deep Learning Fundamentals Working of Neural Networks Gradient Descent and Back Propagation Decision Tree Activation Function
Tensorflow	Tensorflow Introduction
Keras Basics	Building Artificial Neural Networks (ANN) Deep Learning-Overview Deep Learning-ANN-classification
Computer Vision	Computer-Vision-opencv-part1-overview Computer-Vision-opencv-part2-face_detection Intro to CNN
Recurrent Neural Network	Introduction to RNN & Sequence prediction using RNN Introduction to LSTM
Long short-term memory	Introduction to LSTM Sequence prediction using LSTM Applications in text analytics Stock prediction Time series data

Module 8 NATURAL LANGUAGE PROCESSING

Topic	Content Covered
Natural Language Processing Basics	Basics of NLP NLP- tokenisation Removing Stop Words Stemming & lemmatization Parts of speech tagging TFIDF vectorizer Bag of words Sentiment Analysis
Natural Language Processing Advanced	Text Classification with Linear Models Language Modelling with Probabilistic Graphical Models and Neural Networks Word Embeddings and Topic Models Machine Translation and Sequence-To-Sequence Models
Speech Recognition	NLP-Speech-Recognition-and-Text-to-Speech
Reinforcement Learning	Introduction to Reinforcement Learning Model-Based Reinforcement Learning (Dynamic Programming) Model-Free Reinforcement Learning (SARSA, Monte Carlo, Q-Learning) Approximate and Deep Reinforcement Learning (Deep Q-Learning) Policy Gradient Reinforcement Learning Advanced Topics on Exploration and Planning

Module 9 DATA VISUALIZATION USING TABLEAU

Topic	Content Covered
Tableau Introduction	Line Plots and Bar Charts Pie Chart and Histogram Scatter Plots and Parallel Coordinates
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File Creating Calculated Fields, Adding Colors and Labels Time series, Aggregation, Filters and Level of Detail
Tableau Different types of joins	Working with Hierarchies, Joining and Blending Data Dual Axis Charts, Creating Bins and Tree Map Chart Creation of Dashboard and Storyline Creating an Area Chart & Adding a Filter and Quick Filter Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
Tableau Data Blending	Joining Data vs. Blending Data Data Blending in Tableau Creating Calculated Fields in a Blend
Tableau Storyline Creation	Time series, Aggregation and Filters Working with Data Extracts in Tableau Working with Time Series Understanding Aggregation, Granularity
Tableau Data Interpreters and cleaning	Advanced Data Preparation Data Interpreter and Pivot Splitting a Column into Multiple Columns Metadata Grid and Fixing Geographical Data Errors
Tableau Dashboard Concepts	Maps, Scatterplots Joining Data in Tableau Working with Hierarchies Creating a Scatter Plot

Topic	Content Covered
Tableau Cluster Creation and Modelling	Cluster Analysis introduction Classification of clustering procedure Hierarchical clustering and non Hierarchical clustering
Tableau Regression Analysis	Linear Regression Analysis Formulation of Regression Model Conducting Bivariate and Multivariate Regression Regression with Real Time Example
Tableau Step Up	Tool Tip Analysis and Grouping Table Calculations, Advanced Dashboards, Storytelling

Module 10

BIG DATA

Topic	Content Covered
Introduction of Big Data	Introduction of Big Data
Hadoop	Linux Commands HDFS Commands SQOOP Architecture and Hands-on : Import data from Target RDBMS TO HDFS Usecase: with and without Primary key and Incremental Load Usecase: Import all tables at a time and Exclude Tables Usecase: Creation of Sqoop Job and Use Condition Usecase: Data Import and Export from RDBMS and Hive Table
HIVE Architecture and Hands-on	Different Types OF Tables In Hive and Partitioning Partitioning and Bucketing How to Perform Both Partitioning and Bucketing using one table Joins(Reducer Side Joins and MapSide Joins) HIVE: File Formats, Semi structured Data, Updation and Deletion, UDF and Complex Types
HBASE Architecture and Hands-on	Difference Between Hive,SQL and HBASE How to create tables,insert,update and delete How to import data from rdbms to HBASE using Sqoop How to Load CSV DATA INTO HBASE TABLE HIVE to HBASE INTEGRATION
PIG and MapReduce	PIG and MapReduce
Scala	Scala - Variables, In Built Functions Scala - Control Structures and String Manipulations Scala - Collections, File and Exceptions Handling and Traits
SPARK vs MapReduce	Spark - Architecture, File Operations, Spark Shell Spark - Spark Context Creation, Cache and Persist Spark Project with Maven in Eclipse RDD: Transformations and Actions and Data Loading RDD: Key Value Pair, Operations and Spark Application with Spark Shell Deploying Application With Spark-Submit Spark-SQL: Introduction and Different File Formats SPARK SQL: DataFrames, DAG, Lineage Graph, Cluster types Optimizers, Structured Streaming,RDDs to Relations
SPARK Streaming	Spark Streaming - Introduction and Architecture SparkStreaming vs Flume Kafka Introduction and Architecture Spark Streaming integration with Kafka Overview Real Time Examples



IIBM Institute always strive for betterment in terms of content , in terms of delivery and in terms of grievance handling. Thankfully in the mid of my course, I got opportunity by IIBM Institute to place in AIG Business solution now I am a Research Analyst. A big Thanks to all team members of IIBM Institute & specially thanks to placement officer.

"Thanks for the opportunity."

SHIVANGI PATEL
Research Analyst
AIG BUSINESS SOLUTION

Module 11		POWER BI
Topic	Content Covered	
BI Introduction	Power BI services Advantages of visual analytics	
Power BI Desktop	Installation Process of Power BI desktop and getting familiar with interface	
Working with Query Editor	Filters Splitting columns Groups Merging Conditional Columns	
Creating Visuals In Report View	Different types of visual features Drill Down Formatting Visuals	
Taking Project to cloud	How to export Desktop Reports to cloud service and explore my workspace, sharing with other	

CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Artificial Intelligence	Telecom Churm case study using Sklearn
	Handwritten Digit classification using ANN
	Recommendation Engine
	Sentiment Analyser
	Building Chatbot
	SMS Spam Classifier
	Twitter Sentiment Analyser
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition

MASTER PROGRAM IN BIG DATA ENGINEERING

COURSE HIGHLIGHTS

- Video Tutorials : 230+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 24+
- In Class Projects : 15+
- No. Of Quiz : 2000+

ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

COURSE DURATION

9 Months

CURRICULUM

MODULE 1 Big Data fundamentals

MODULE 2 Big Data Hadoop and Spark

MODULE 3 SQL Database

MODULE 4 Mongo DB

MODULE 5 Amazon Web Services (AWS)

MODULE 6 Business Analysis

MODULE 7 Data Analytics

MODULE 8 Data Science with Python

MODULE 9 Machine Learning

MODULE 10 Deep Learning

MODULE 11 Natural Language Processing

MODULE 12 Data Visualization using Tableau

MODULE 13 Power BI

COURSE FEES

Lumpsum Fees Rs. 55,000 + GST 18 % applicable

Installment Rs. 60,000 + GST 18 % applicable					
Registration Amount	EMI 1	EMI 2	EMI 3	EMI 4 + Exam Fees	EMI 5 + GST 18%
10,000	15,000	15,000	15,000	5,000 + 6,000	10,800

*Exam Fees of 6000/- applicable for complete course.

*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

CERTIFICATE AWARDED

• Master Program in Big Data Engineering

• Business Analyst Certificate

CURRICULUM

Module 1

BIG DATA FUNDAMENTALS

Topic	Content Covered
Introduction of Big Data	Introduction of Big Data
Hadoop	Linux Commands
	HDFS Commands
	SQOOP ARCHITECTURE AND HANDS-ON: How Import data from Target RDBMS TO HDFS Usecase1: With Primary Key and Without Primary Key useCase2: Boundary Query Without columns and With Columns Use Case3: Incremental Load Usecase4: How to Import all tables at a time Usecase5: How to Import all Tables with Exclude Tables UseCase6: How to Create Sqoop Job UseCase7 : How to Use \$Conditions in Sqoop UseCase8: How to Import data from RDBMS to HIVE TABLE Usecase9: How to Process Semi Structured data using Sqoop Usecase10: Sqoop Export from HDFS to RDBMS

Module 2

BIG DATA HADOOP AND SPARK

Topic	Content Covered
Hadoop	HIVE ARCHITECTURE AND HANDS-ON: Different Types OF Tables In Hive Partitioning Different Types Of Partitioning Bucketing How to Perform Both Partitioning and Bucketing using one table Joins (Reducer Side Joins and MapSide Joins) How to Semi Structured Data using Hive Different File Format In Hive How to perform Updates and Deletes in Hive Hive Complex Types Hive Udf HBASE ARCH AND HANDS-ON : Differnce Between Hive,SQL and HBASE How to create tables,insert,update and delete How to import data from rdbms to HBASE using Sqoop How to Load CSV DATA INTO HBASE TABLE HIVE to HBASE INTEGRATION PIG AND MAPREDUCE SCALA What Is Scala Differnce between JAVA and SCALA SCala Variables For,While and Do while Loop Condiotional Statements String,String Methods,String Interpolation Functions Higher Order Functions Anonymous Functions Closure Function Currying Function Collections(Array,set,tuple,map and list) File Handling Exception Handling Traits
Spark	Spark vs Map Reduce Architecture of Spark Spark Shell introduction Creating Spark Context Spark Project with Maven in Eclipse Cache and Persist in Spark File Operations in Spark RDD: What is RDD Transformations and Actions Loading data through RDD Key-value pair RDD Pair RDD oeprations Running spark application with Spark-shell Deploying Application With Spark-Submit Spark-SQL: Introduction to Spark SQL Hive vs SparkSQL Processing different fileformats using Spark SQL DataFrames DAG Lineage Graph Cluster types Spark Streaming: Introduction to Spark Streaming Architecture of spark Streaming SparkStreaming vs Flume Introduction to Kafka Kafka Architecture Spark Streaming integration with Kafka Overview Real Time Examples

Module 3		SQL DATABASE
Topic	Content Covered	
Fundamentals of SQL Database	Introduction RDBMS Constraints Normalisation Syntax Operators Database queries Table queries Indexes Handling duplicates	
Module 4		MONGO DB
Topic	Content Covered	
MongoDB	Introduction Advantages Environment Data Modelling Database Collections Documents Records Indexing Aggregation Replication Sharding Backup Deployment Relationships Database references Covered queries Analyzing queries Atomic Operations Advanced Indexing Indexing limitations ObjectId MapReduce Text Search Regular Expression RockMongo GridFS Capped Collection Auto- increment sequence	
Module 5		AMAZON WEB SERVICES (AWS)
Introduction to AWS	Historical Perspective of DataCenters Datacenter Components	
Foundational and Computer Services	Learn why we need servers compute power and security Explore AWS compute services like Elastic Cloud Compute (EC2) Virtual Private Cloud (VPC) Lambda for serverless framework	
Storage and Content Delivery	Learn why we need storage and content delivery in the cloud I Learn storage services like S3, DynamoDB, Relational Database Service (RDS) il and Cloud Front I Create a Dynamo DB table I launch a MySQL databaseinstance and create a CloudFront distribution	
Security	Learn the importance of security in the cloud I See Identity & Access Management (IAM) in action I Secure applications using IAM users, groups, and policies	
AWS Management	Learn why we need logging, auditing and resource management in the cloud I Understand services like Cloud Watch, CloudFormation, and the AWS Command Line	
Module 6		BUSINESS ANALYSIS
Topic	Content Covered	
BA Introduction and Fundamentals	Business Analyst – Who, What, Why? BA – qualities, skills, roles, responsibilities Fundamentals of Business Analysis Hierarchical Structure of IT Team IIBA, BABOK, CBAP, CCBA Overview CMMI Overview Project Stakeholder Types of Stakeholder Software Project and Types of Software Project Software Contract and Types of Software Contract	
Software Development Life Cycle (SDLC)	Introduction of SDLC Need of a BA in SDLC Phases of SDLC "SDLC Methods --> Waterfall Model and Agile, Scrum --> Iterative and Incremental --> V Model and Spiral Model" "SDLC --> Pre-requisites and Activities -->Common Criteria and Deliverables" Software Maintenance lifecycle model Software testing lifecycle model	
Requirement Engineering	Why do we need good Requirements Why do Project Fail? Importance of Requirement – Statistics What is Requirements Engineering Role of a Business Analyst	

Topic	Content Covered
Requirements	What are requirements? And Characteristics of Requirements Types of Requirements Business Requirements User Requirements and System Requirements Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements
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Requirements Specification	How to write Business Requirement document? How to write Software Requirement specification Introduction to Software Requirement Specification Understanding SRS syntax with IEEE Standards What are Use Case and Use Case Narrative? Relationship between Use Cases How to write Use Cases? Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow Activity Diagram, Class Diagram, E-R Model, Sequence Diagram, State Diagram, Collaboration Diagram
Requirement Engineering Project with Cases – Phase 1	Business Process of existing system GAP Analysis – PIECES Framework Domain Properties and Stakeholders Feasibility Study Evaluation of Alternatives using Cost – Benefit Analysis
Requirement Engineering Project with Cases – Phase 2	Use case Description and Use Case Diagram Activity Diagram What are Use Case and Use Case Narrative? Relationship between Use Cases How to write Use Cases? Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow Pre-condition, Post-condition, Exception handling and Triggers
Requirement Engineering Project with Cases – Phase 3	Sequence Diagram Class Diagram Software Requirement Specification
Requirements Management	RTM - Requirements Traceability Matrix Requirements Change Management Requirements Risk Management Impact Analysis
Scope Management	Different dimensions of scope Managing Scope at different stages of the Project Product Scope and Project Scope Issues in scope management Measurement of Scope and Metrics
Risk Management	Steps in Risk Management Risk Identification Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners Risk Monitoring and Control Risk Management Documents
Estimation Management	Introduction to Estimation The Importance of Estimation What is Estimation? The Estimation Process Overview Problems with Estimations Estimation Techniques
Customer Expectation Management	Importance of CEM Traditional and modern view Understanding Customer and Managing Expectations Issues in Customer Expectation Management Handling Difficult Situations Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System Concept of Quality Metrics and Measurements Defect Preventions Defect analysis tools and techniques
Business Communication Management	Communication: Introduction Email Communication Teleconference and Meetings Assertiveness and Scenarios

Topic	Content Covered
Requirement Process, Planning and Management	Understanding IT project hierarchy Project Charter and Requirements Process RACI Matrix and Requirements Planning Work Efforts & Estimations Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping Types of Prototyping Prototyping as methodology User Interface Prototyping Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD) Use case document (USD) Software Requirement Specification Document (SRS) Change Request Process Document Functional Requirement Specification (FSD) Business Process Questionnaire Document Project Requirement Management and development process Document Scope management Document Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram Sequence Diagram and Collaboration Diagram Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro Microsoft Visio – UML Tool Team Foundation Server (TFS) JIRA – Agile Tool SVN – Configuration Management Tool Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation High-level Project and Process Plan Sprint Planning Meeting The Sprint and Daily Scrum Meetings Sprint Review Meeting Sprint Retrospective Next Sprint and Repeat Post-Sprint Functional Testing by PO Pre-release Testing prior to Release to Customer Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project Requirement Management Process – For Maintenance Project Change Request (CR) Process
Software Project Management	What is Project Management? Project Management Phases Project Management Knowledge Areas Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction BABOK Knowledge Areas Business Analysis Planning Enterprise Analysis Requirement Elicitation Requirement Analysis Solution Assessment and Validation Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives Business Intelligence Perspectives Information Technology Perspectives Business Architecture Perspectives Business Process Management Perspectives

Module 7 DATA ANALYTICS

Topic	Content Covered
Fundamental of Data Analytics	Data Analytics across Domains What is Analytics? Types of Analytics AI vs ML vs DL vs DS
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem Measures of Central Tendencies and Measures of Spread Descriptive Statistics with Real Time Examples Measuring Scales Inferential Statistics with Real Time Examples
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test Introduction to Statistical Tests Statistical Test with Real Time Example Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA) Probability Theory for Data Analytics Types of Probability Distribution

Module 8 DATA SCIENCE WITH PYTHON

Topic	Content Covered
Python Fundamentals	Python Intro,IDE and Python Packages Python Programming Python Data Types - Dictionary, List and Set
Python Packages	Numpy Packages - Array Handling and Manipulation Pandas Packages - Dataframe and Loading Excel, CSV File Matplotlib Packages - Line graph and Visualisation

Topic	Content Covered
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis
Python - Control Structures	Python - Operators and String Manipulation Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)
Exporatory Data Analysis (EDA)	Python - Data Preparation Process Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods
Python - Predictive Analytics	Python - Time Series Analysis and Forecasting Python - Simple Predictive Analysis
Data Science Lifecycle	Data Science with Python Data Science Application across Multiple Domain and Business Function Data Science Project LifeCycle
Data Science Prediction Algorithm	Multiple Predictive Model using Python Python - Simple and Multiple Predictive Model in Practical Python Correlation Analysis Python Classification Model Building
Data Science Classification Algorithm	Data Science - Experimental Design Analysis Classification Technique - Discriminant Analysis Data Science - Association Rule - Apriori Algorithm Data Science - Building Recommendation System - (Market Basket Analysis)
Data Science - Image Recognition	Data Architecture Design, Data Warehousing and it's Schema Design Image Processing and Image Extraction Image Processing and Object Recognition Summarisation of Data Science Algorithm (Data Science Process)

Module 9 MACHINE LEARNING

Topic	Content Covered
Machine Learning Introduction	Machine Learning Introduction
Supervised Learning - Regression Algorithm	Linear Regression Logistics Regression ANOVA and ANCOVA Linear Discriminant
Supervised Learning - Classification Algorithm	Naïve Bayes K-Nearest Neighbour SVM- Support Vector Machine -Decision Tree and Random Forest
Unsupervised Learning Algorithm	Factor Analysis Cluster Analysis Association Rule Correlation
Time Series	Time Series Analysis

Module 10 DEEP LEARNING

Topic	Content Covered
Deep Learning and Neural Networks Overview	Deep Learning Fundamentals Working of Neural Networks Gradient Descent and Back Propagation Decession Tree Activation Function
Tensorflow	Tensorflow Introduction
Keras Basics	Building Artificial Neural Networks (ANN) Deep Learning-Overview Deep Learning-ANN-classification
Computer Vision	Computer-Vision-opencv-part1-overview Computer-Vision-opencv-part2-face_ detection Intro to CNN
Recurrent Neural Network	Introduction to RNN & Sequence prediction using RNN Introduction to LSTM
Long short-term memory	Introduction to LSTM Sequence prediction using LSTM Applications in text analytics Stock prediction Time series data

Module 11 NATURAL LANGUAGE PROCESSING	
Topic	Content Covered
Natural Language Processing Basics	Basics of NLP NLP- tokenisation Removing Stop Words Stemming & lemmatization Parts of speech tagging TFIDF vectorizer Bag of words Sentiment Analysis
Natural Language Processing Advanced	Text Classification with Linear Models Language Modelling with Probabilistic Graphical Models and Neural Networks Word Embeddings and Topic Models Machine Translation and Sequence-To-Sequence Models
Speech Recognition	NLP-Speech-Recognition-and-Text-to-Speech
Reinforcement Learning	Introduction to Reinforcement Learning Model-Based Reinforcement Learning (Dynamic Programming) Model-Free Reinforcement Learning (SARSA, Monte Carlo, Q-Learning) Approximate and Deep Reinforcement Learning (Deep Q-Learning) Policy Gradient Reinforcement Learning Advanced Topics on Exploration and Planning

Module 12 DATA VISUALIZATION USING TABLEAU	
Topic	Content Covered
Tableau Introduction	Line Plots and Bar Charts Pie Chart and Histogram Scatter Plots and Parallel Coordinates
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File Creating Calculated Fields, Adding Colors and Labels Time series, Aggregation, Filters and Level of Detail
Tableau Different types of joins	Working with Hierarchies, Joining and Blending Data Dual Axis Charts, Creating Bins and Tree Map Chart Creation of Dashboard and Storyline Creating an Area Chart & Adding a Filter and Quick Filter Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
Tableau Data Blending	Joining Data vs. Blending Data Data Blending in Tableau Creating Calculated Fields in a Blend
Tableau Storyline Creation	Time series, Aggregation and Filters Working with Data Extracts in Tableau Working with Time Series Understanding Aggregation, Granularity
Tableau Data Interpreters and cleaning	Advanced Data Preparation Data Interpreter and Pivot Splitting a Column into Multiple Columns Metadata Grid and Fixing Geographical Data Errors
Tableau Dashboard Concepts	Maps, Scatterplots Joining Data in Tableau Working with Hierarchies Creating a Scatter Plot

Module 13 POWER BI	
Topic	Content Covered
BI Introduction	Power BI services Advantages of visual analytics
Power BI Desktop	Installation Process of Power BI desktop and getting familiar with interface
Working with Query Editor	Filters Splitting columns Groups Merging Conditional Columns
Data Modelling	Cardinality Cross Filters DAX Functions
Creating Visuals In Report View	Different types of visual features Drill Down Formatting Visuals
Taking Project to cloud	How to export Desktop Reports to cloud service and explore my workspace, sharing with other

CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Artificial Intelligence	Telecom Churn case study using Sklearn
	Handwritten Digit classification using ANN
	Recommendation Engine
	Sentiment Analyser
	Building Chatbot
	SMS Spam Classifier
	Twitter Sentiment Analyser
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition
Mongo DB	Create Database for Content Management System
	Create Database for Product Catalog
Amazon Web Services	AWS Project– Account creation, Navigating AWS console, Creating a project



The team in IIBM is really professional and really helpful. I would like to take this opportunity to thank the entire academic team of IIBM who are working for correction of assignments.etc. A special thanks to the administration department for all the support remote support extended. Really, I would definitely recommend the same to all who are looking to develop their education profile .

RABI NARAYAN JENA
Sr. Accountant
CENTURY EXTRUSIONS LIMITED

IIBM INSTITUTE PLACEMENT ACTIVITIES

1. Job Mailer facility

The placement cell's Job Mailer facility delivers weekly job opportunities through their emails based on the course the candidate completed. It helps in sending applications/sorting job interviews for career progression.

2. Live Placement Orientation Sessions

Live interactive sessions by IIBM mentors to assist the candidates on job search and to help them to understand the nuances of getting quick success in the placement procedure. Live sessions are conducted on Sundays and Mondays by their placement experts.

3. Career Assistance videos

IIBM Institute Placement Department archived more than 50+ Hours of Recorded course on motivation and career orientation as a free add-on. The video course is offered by many recognized corporate veterans to help the students to build excellent and contemporary careers.

4. LinkedIn Profile

Nowadays, LinkedIn plays a vital role in talent hunt by the employers. The scope of it can be optimally extracted only by a career professional. IIBM's career/placement cell guides the students to create an impactful LinkedIn profile to get noticed easily by the Employers.

5. Promotional videos

Promotional videos are mailed to all IIBM India students, and these videos will help students to stay focused on the road to success, new job opportunities, and personal grooming. These videos will allow students to stay charged and energized until they crack the job challenge.

6. Personalized Guidance by IIBM Institute

The placement officers of IIBM Institute offers their industry experience to help the students get the job. Personalized counselling helps the students to secure a job based on their skill level, basic education qualification and other competencies and preferences. and resume. The guidance can help in getting a better foothold in the industry.

7. Mock interviews

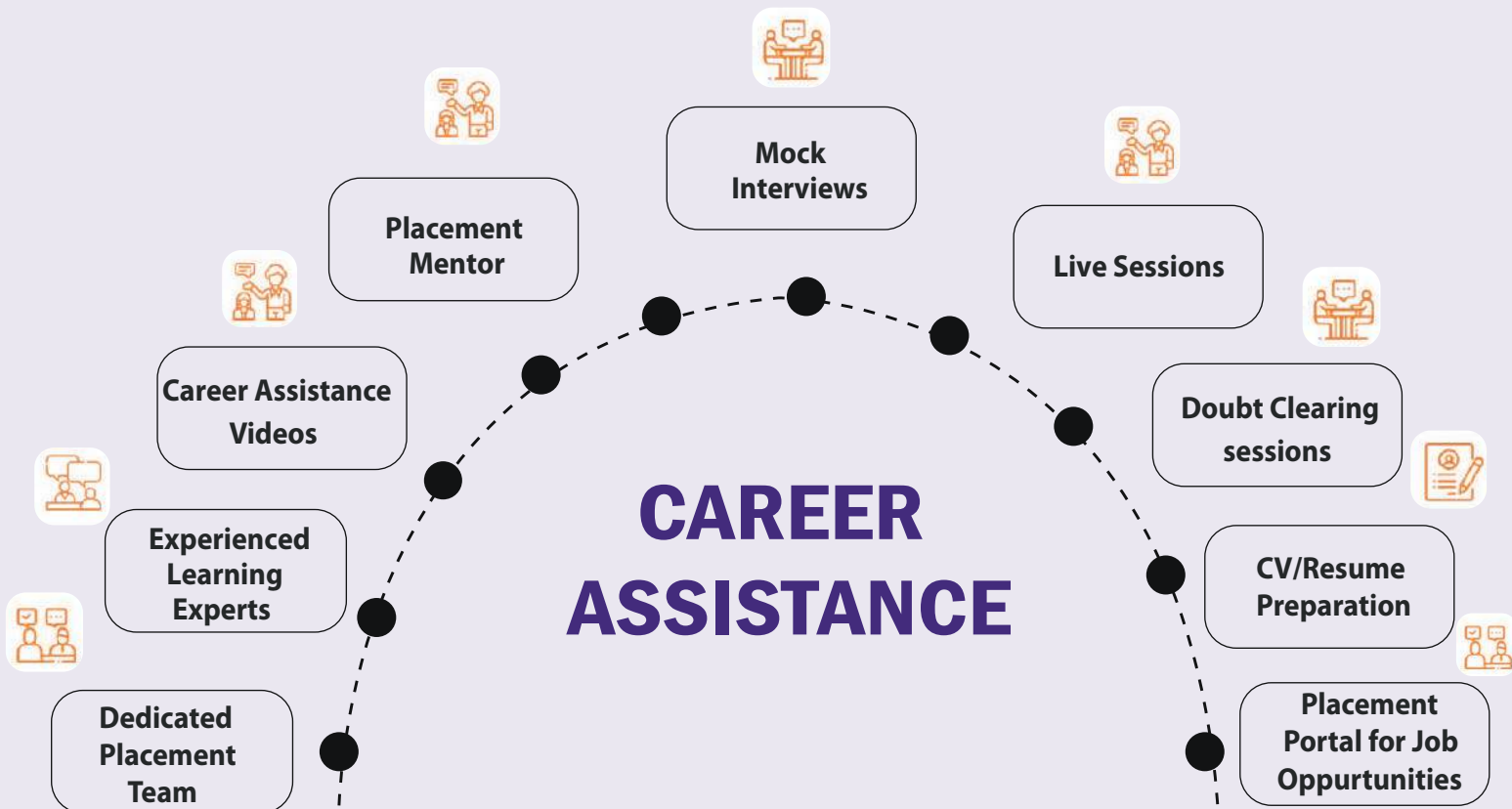
IIBM's recruitment experts conduct mock sessions replicating a professional interview session, and it will prepare the candidates to face the most challenging interview sessions. This practice session will help them to finetune the body language, quick answering/responding ability, brush up on your communication skill, etc.

8. Resume Preparation

Creating a well-formatted resume helps in pulling the attention of the employers. IIBM offers professional guidance and training for creating a well-formatted resume to attract the best review/impression from potential employers.

CAREER DEVELOPMENT

100 % JOB PLACEMENT



MENTORSHIP

Our Industry mentor and a dedicated placement team will guide you with :

ACADEMIC ASSISTANCE

- Provide unparalleled support and guidance.
- Help execute in- class assignments and case studies.
- Discuss & identify learning gaps and other solutions such as refresher sessions and one-on-one project feedback.

CAREER ASSISTANCE

- Maintain close interaction with students during the career assistance and placements phase of the program.
- Talk you through industry insights and best practices.
- Provide you with interview tips and job search advice.

MONITOR PROGRESS

- Set learning Goals.
- Discuss your progress status with trainers and other industry mentors on a regular basis to ensure consistent advancement.

PROGRAM FACULTY & TRAINERS

FACULTY AND TRAINERS



**BARUN KUMAR
MISHRA**

Data Science , Machine Learning , Tableau , SQL

Qualifications : MBA in Finance & IT , Bachelor in Computer Application



DINESH BABU-R

Urban Pro Excellence Award Winner in Data Science Professional) Senior Business Analyst in the MNC, Part time , providing Business Analysis as well as Data Analysis Training to both Indian as well as overseas students.

Qualifications : B.Tech and MBA (Finance & Operation), Ph.D in Data Analysis.



GANESH BHURE

11 years working experience in various training assignments on Python, Machine Learning, Data Analytics, Artificial Intelligence.

Qualifications : Management LDP Program, B. Tech./B.E. (Electronics & Telecommunication)



SURYA

9.5 years IT experience in Big Data Hadoop and PERL as a Developer, 5.5 years of comprehensive experience as Big Data developer, Practical exposure and strong knowledge in Big data management.

Qualifications : Master Of Computer Applications (M.C.A), B.Sc. (Electronics).

PLACEMENT MENTORS



ANOOP MATHEW

He has trained more than 500 teachers on Engineering Pedagogy and Digital Transformation. He guided nearly 60 PG projects and 40 UG projects. He dealt teaching engineering to approximately 1500 students in his teaching career.

Qualifications : M.Tech (power electronics), MBA-HR, PhD in power quality improvement



DEVENDRA KUMAR

He is an extra ordinary performer in the field of Training & Placements from last 8 years . He has worked with many well known colleges/Universities, Has got exceptional performance award in the domain of students career counseling and mentoring. With high level of networking in corporates.

Qualifications : M.B.A(Marketing & Finance)

DIVERSE JOB POSITIONS

Senior Business Analyst

Data Science Engineer

Data Scientist

Analytics Consultant

Business Analyst

Senior Data Scientist

Machine Learning Engineers

Manager Analytics

Data Architect

Business Intelligence Analyst

IIBM CANDIDATES WORKING IN COMPANIES BELOW

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