



Dice Analytics Presents

Data Warehouse & Business Intelligence

About the Course

Offering an 8 Weeks extensive course getting candidates ready to become Data Warehouse and Business Intelligence Experts. During the Eight (8) weeks of the course, you will learn about the different ingredients of Data Warehouse such as Dashboards, Data Modelling, Teradata and Advance SQL. In subsequent weekly distribution of the course, participants will have hands on experience on different tools of the Business Intelligence such as Tableau and Power BI. In the hands-on projects you will be able to implement your learnings throughout this course. At the end of the course candidates will have in depth understanding & hands on related to DWH & Business Intelligence.

Who Should Attend?

- Recent graduates, third year and final year students from the computer science disciplines.
- Professionals from the computer science domain who want to shift the profession to Big Data Analytics.
- Executives who want to build the initial knowledge about the impact of the Big Data ecosystem on organization growth.

About the Instructor

Ms. Areesa Masood

Ms. Areesa is a Telecom Professional Credited with the 5+ years of competitive experience in IT & Commercial with focus on Data Development, Data Warehouse, Business Intelligence & Analytics and Data Science. She has acquired multiple certifications from KNIME, Dice & Coursera to build a strong command in the field. Her core expertise includes: Teradata SQL Assistant, PL/SQL(Oracle), IBM COGNOS, MicroStrategy, BI Reporting and Analysis, Shell Scripting, TPT utility, RDBMS, Data Modeling, Visualization, Tableau & Power BI.

Mr. Amad Iftikhar

Mr. Amad is a BI enthusiast with an extensive experience in Data Analytics domain while working with Top Telecom Companies in Pakistan. He is currently working as Business Analyst at SABB & has experience of working on various industry projects such as facial recognition based attendance system, churn prediction and credit scoring using Machine Learning models. He is a Microsoft Certified Data Analyst who has also acquired multiple certifications in Tableau, Python, and Data Science. Amad has strong grip on Business Intelligence & Data Warehouse tools on the basis of which he has mentored several students & professionals in the industry.

COURSE OUTLINE

WEEK 1

DWH Essentials & SQL

- Data Analytics Ecosystem
- Introduction to DWH
- OLTP vs OLAP
- Scorecard vs Dashboard
- Databases VS RDBMS
- DWH Soft Architecture & layers
- Implementations of DWH
- Exercise on DWH Importance
- Introduction to Teradata
- Hands on SQL basics
- Hands on SQL Advanced
- Introduction to Teradata HW Architecture
- Data Science vs Business Intelligence
- Overview of DWH & BI Certifications
- DWH Project Distribution on Retail Industry
- DWH Planning

WEEK 2

DWH Architecture & Design

- Teradata Architecture
- Data Modeling (Conceptual and Logical Data Model and Physical Data Model)
- Normalization
- Data Quality & Automation
- DWH Operations
- ETL/ELT/ELTL/Data Lake
- Retentions, Compressions
- Modern Data Warehouse vs Traditional



WEEK 3

DWH Project (ETL Development & Data Quality)

- Hands on Logical Data Model
- Hands on Physical data model (Staging layers)
- Implementing Data Quality in ETL development
- Queries/Processes Monitoring through TD Viewpoint

WEEK 5

BI Modeling

- Business Intelligence & its importance
- Hands on Business Analysis (Ad hoc Reporting)
- OLAP –Dimensional Modelling Fundamentals
- Dimensional Modelling Design with industrial use case
- Design Steps - Dimensional Modeling (Hands on)
- Implementation – Dimensional Modeling (Hands on)
- Slowly Changing Dimensions (SCDs) with use cases
- ROLAP VS MOLAP
- Design and implementation of Dimensional Model on Retail Store Data (Assignment)

WEEK 7

Advanced Power BI & Tableau

- Introduction to DAX Language
- Creating DAX Measures
- Evaluating DAX Measures
- Leverage Calculate Functions functionality
- Power Function/ Divide Function
- MTD, QTD and YTD Date Calculations
- Business Use Case implementation in Power BI (Assignment)
- Connecting with Different Data Sources in Tableau
- Data preparation with Tableau
- Live Vs Extract
- Data Source Filters
- Basic Report Creation
- Understanding of Rows and Columns
- Leveraging the Use of Marks Labels to enrich information in Reports
- Visualization best practices with real world examples
- Grouping fields in Tableau
- Interactive Filters

TOOLS

• SQL • Teradata • Tableau • Power BI

Duration: **8 Weeks**
 Contact Us: **051-8356065-6**
 Email: **info@diceanalytics.pk**

WEEK 4

DWH Project (Automations & Performance Tuning)

- Hands on physical Data Model (Foundation layer)
- Hands on Physical Data Model (Aggregate layer)
- Building Reconciliation Mechanism across layers of DWH
- ETL Automations using SLJM
- Performance Tuning
- Statistics
- Viewpoint Query Monitoring, Health Monitoring, Workload Management, Query Spotlight
- Learning importance of Explain Plan & query Performance Optimization.

WEEK 6

Power BI

- How to Connect & Import Data from multiple Data sources
- Reshaping and Transforming Data in Query Editor
- Data Enrichment (New business Fields)
- Data Modelling
- Understanding Cardinalities
- Building Interactive Visualizations on previously implemented Dimensional Model
- Animated Visualization Implementation
- Roll-up/Roll-Down Capabilities
- Custom visualization in Power BI
- Introduction to Power BI Services
- Scheduling Automated Reports Refresh
- Creating Dashboards & Natural Language Processing in Power BI Services
- Sharing Dashboards All across Organizations
- Mobile Dashboard Design

WEEK 8

Advanced Tableau

- Types of filters
- Advanced Filter Calculations
- Enhancing user interactivity thorough parameters
- Pages
- Maps in Tableau
- Importing custom geocoding in Tableau
- Visualize your data on map through spatial files
- Building a Dashboard
- Leveraging the use of Interactivity in Dashboards through Actions
- Designing and implementation of dashboard
- Designing of dashboard for mobile & Tablets
- Extensions
- Enriching information by creating Calculated Fields
- Calculation Syntax
- Date/Logic/String Calculations
- Advance Calculations (LODs)
- LODs real world Use cases
- Visual analytics
- Pareto Chart
- Business Use Case implementation in Tableau (Assignment)

