



 THINK BIG . TRAIN SMART . WIN HARD

ALGOFORGE STUDIOS

DATA ANALYTICS & BI | COURSE BROCHURE



ALGOFORGE STUDIOS

01

ABOUT

US



AlgoForge Studios is a leading training and AI solutions company specializing in Data Science, Machine Learning, Cybersecurity, Generative AI, and Full-Stack technologies.

We provide industry-focused training, live projects, guaranteed paid internships, and placement support to help learners build strong, job-ready technical skills.



DATA ANALYTICS

& POWER BI

02



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Data Analytics helps organizations turn raw data into meaningful insights for better decisions. Power BI enables creating interactive dashboards, visual reports, and real-time analytics with ease.

At AlgoForge Studios, this domain builds strong skills in data handling, visualization, and business reporting – preparing learners for modern data-driven roles.



ALGOFORGE STUDIOS

OUR KEY BENEFITS

- Guaranteed Paid Internship
- Industry-Recognized Certification
- 24/7 Access to Learning Materials
- Dedicated Support System
- Live Projects & Real Client Work
- Placement Assistance
- Expert Trainers (7+ Years Experience)

03



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04

COURSES UNDER THIS DOMAIN



Data Analytics Using R
Course



Data Visualization Expert
Course



Diploma in Data Analyst
Course



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05

COURSES UNDER THIS DOMAIN



**Power BI Certification
Course**



**Data Analytics with Qlik Sense
Course**



**Data Analytics with Microsoft
Power BI Course**



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06



DATA ANALYTICS USING R COURSE

- Duration: 8+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹10,500



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COURSE CURRICULUM

01

Analytics

- Analytics Definition and Applications of Analytics
- Quiz Module 1

02

R Introduction

- About R: R Installation- R Environment and R Studio ; R Studio Overview/Features
- Data Import and Export- Importing through CSV; Importing through Excel; Importing through CSV URL; Importing through Text File; Importing through Google Sheets; Date Export

- Operators in R- Assignment operator; Arithmetic operators; Relational operators; Logical operators
- Data Types and Data Structures- Data Types; Vectors; Matrices; Arrays; List; Data Frame
- Quiz Module 2

07



COURSE CURRICULUM

03

Handling Data in R

- Handling packages in R- Package Installation; Package Loading; Unloading Package; Removing Package; Updating Packages
- Subsetting Data in R- Square Bracket Notation; Subset Function ; Which Function with bracket Notations
- Data Management in R- Renaming Variables; Adding/Removing : Rows/Columns; Reshaping the data; Sorting and Transpose; Merging the data; Splitting the data
- Quiz Module 3

04

Basic Statistics

- Descriptive Statistics- Understanding Different Statistical Functions in R
- Quiz Module 4

05

Data Manipulation in R

- Apply Family in R- Using Apply functions to manage data in R
- Aggregate and Table Command- Aggregate Command ; Table Command
- Data Manipulation in R- dplyr functions
- Quiz Module 5

08



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COURSE CURRICULUM

06

Graphical Representation of Data

- Summarising the data graphically- Scatter Plot; Box Plot; Histogram; Bar Graph; Pie Chart
- Quiz Module 6

07

Extra Topics (Advanced Graphs)

- Data Visualization using GGPlot Library
- Quiz Module 7

08

Text Mining

- Text Mining Overview, Applications of TM, Steps for TM in R, creating Word Cloud using diff packages
- Quiz Module 8

09



DATA VISUALIZATION EXPERT COURSE

- Duration: 9+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹31,000



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COURSE CURRICULUM

01

Introduction to Data Visualization with Tableau

- What is Business Intelligence (BI)?
- Data Visualization
- Benefits of visualizing raw data
- History of Data Visualization
- Introduction to Tableau
- Advantages & disadvantages of Tableau
- Download & install Tableau Public
- Load data from excel
- User interface of Tableau Public
- Quiz Module 1

02

Connecting to Various Data Sources and Preparing Data

- Connecting to Tableau Server
- Types of connections
- Connecting to different data source
- Preparing data for analysis
- Joins
- Relationships
- Union

- Data blending
- Aggregation in Tableau
- Pivot
- Data interpreter
- Split
- Creating extracts with multiple tables
- Quiz Module 2



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COURSE CURRICULUM

03

Working with Metadata

- Data Types
- Dimensions vs Measures
- Discrete vs Continuous
- Application of discrete & continuous fields
- Rename hide unhide and sort columns
- Default properties of fields
- Create Aliases
- Quiz Module 3

04

Spotlight One

- Spotlight One

05

Filters in Tableau

- Dimension filter
- Measure filter
- Date filter
- Visual filter
- Interactive filter
- Data source filter
- Context filter
- Quiz Module 5



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COURSE CURRICULUM

06

Structuring Data in Tableau

- Sort
- Group
- Sets
- Bins & Histograms
- Hierarchies
- Quiz Module 6

07

Creating Charts & Graphs

- Text table & cross table
- Highlight tables
- Heat maps
- Bar chart
- Stacked bar chart
- Line chart
- Sparkline
- Scatter plot
- Tree map
- Bubble chart
- Word cloud
- Combined-axis chart
- Dual-axis charts
- Funnel chart

- Importance of maps
- Creating maps with tableau
- How to pan zoom & select in tableau
- Using maps to filter data
- Map layering
- Creating custom territories
- Modifying locations within tableau
- Geocoding
- Using background image
- Tableau map search
- Quiz Module 7



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08

Spotlight Two

- Spotlight Two

09

Calculations in Tableau

- Types of calculations
- Ad-hoc calculations
- Table calculations
- Waterfall chart
- Pareto chart
- Built in functions
- Introduction to Level of Detail (LOD)
- Fixed LOD
- Include LOD

- Exclude LOD
- Nested LOD expressions
- Aggregation and replication with LOD expressions
- Helper Functions
- KPI table
- Quiz Module 9



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Advanced Visual Analytics

- Parameters
- Creating Parameters
- Parameters with filters
- Parameters in calculations
- Column selection parameter
- Chart selection parameters
- Tooltips
- Tooltips visualizations
- Reference & trend lines
- Reference bands

11

Dashboards & Stories

- Distribution bands
- Bullet chart
- Box plot
- Forecasting
- Clustering
- Reference distribution
- Statistical summary cards
- Instant analysis
- Quiz Module 10

- Dashboard
- Working with layout
- Objects in dashboard
- Dashboard layouts & formatting
- Building interactive dashboards
- Actions in dashboards
- Best practices for dashboard creation
- Dashboard for mobile
- Introduction to storyboard
- Creating and updating story points
- Publishing and sharing options
- Quiz Module 11

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DIPLOMA IN DATA ANALYST COURSE

- Duration: 9+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹13,500



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COURSE CURRICULUM

01

R Programming

- R Programming
- Random Forests
- K-Means Clustering
- Basic R syntax and data types
- Data manipulation and cleaning using packages
- Data visualization with ggplot2
- Statistical analysis using packages like stats and infer
- Predictive modeling and machine learning with packages like caret and random Forest
- Working with big data using packages like data.table and dplyr (with databases)
- Web scraping and text mining using packages

02

Python Programming

- Introduction to Python
- Python objects
- User-Defined And Lamda Functions
- Numpy
- Pandas
- Data Frame Manipulation
- Visualization – Part 1
- Visualization – Part 2
- EDA

- Basic Python syntax and data types
- Data manipulation and cleaning using libraries like NumPy and Pandas
- Data visualization with libraries like Matplotlib and Seaborn
- Statistical analysis using libraries like SciPy and Statsmodels
- Predictive modeling and machine learning with libraries like Scikit-learn and TensorFlow
- Working with big data using libraries like PySpark or Dask
- Web scraping and text mining using libraries like BeautifulSoup and NLTK



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03

Natural Language Processing

- Natural Language Processing & Nltk
- Advanced Natural Language Processing & Spacy
- Text Preprocessing And Tokenization.
- Sentiment analysis.
- Named Entity Recognition (NER).
- Text classification.
- Word embeddings

04

Statistics & Probability

- Introduction to Statistics
- About Data
- Descriptive Stats
- Probability Theory
- Data Distribution
- Hypothesis Testing
- Inferential Stats
- Sampling Techniques
- Statistical Tests

05

Power BI

- Business Intelligence (BI) Concepts
- Microsoft Power BI (MSPBI) Introduction
- Connecting Power BI with Different Data Sources
- Power Query for Data Transformation
- Data Modelling in Power BI
- Reports in Power BI
- Reports & Visualization Types in Power BI
- Dashboards in Power BI
- Data Refresh in Power BI
- Projects – End to End Data Modelling & Visualization

COURSE CURRICULUM



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06

Tableau

- Introduction to Data Visualization and Power of Tableau
- Architecture of Tableau
- Working with Metadata and Data Blending
- Creation of Sets
- Working with Filters
- Organizing Data and Visual Analytics
- Working with Mapping Preview

07

SQL Developer

- SQL Overview
- SQL Manipulation
- JOIN
- String Functions
- Mathematical Functions
- Date-Time Functions
- Tuning Tips



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08

Big Data Hadoop

- Hadoop Framework
- Spark
- Machine Learning With Spark And Real-Time Streaming

09

Industry 4.0

- Introduction
- Smart Factory
- Challenges & Impact Of Industry 4.0
- Pillars Of Industry 4.0

10

Computer Vision Course

- Introduction To Image Processing
- CNNs
- Challenges & Impact Of Industry 4.0



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POWER BI CERTIFICATION COURSE

- Duration: 7+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹10,000



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COURSE CURRICULUM

01

Business Intelligence (BI) Concepts

- Introduction to Business Intelligence
- The importance of Business Intelligence
- The relation between Business Intelligence and Data Warehouse
- Tools and Technologies in Business Intelligence area
- Quiz Module 1

02

Microsoft Power BI (MSPBI) Introduction

- Power BI Architecture
- Power BI introduction and overview
- Introduction Power BI desktop and Power BI in Excel
- Quiz Module 2

03

Connecting Power BI with Different Data Sources

- Connect to CSV files in Power BI Desktop
- Connect to Excel in Power BI Desktop
- Connect to text in Power BI Desktop
- Connect to SQL Server in Power BI Desktop
- Connect to a Web page from Power BI Desktop
- Connect to Direct SQL Query in Power BI Desktop
- Quiz Module 3



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COURSE CURRICULUM

04

Power Query for Data Transformation

- Power Query Introduction
- Query Editor
- Query Editor Interface
- Column Transformations
- Data Type
- Adding Column
- Text Transformations
- Number Column Calculations
- Date and Time Calculations
- M built-in functions
- Quiz Module 4

05

Data Modelling in Power BI

- Introduction to DAX
- Calculated Columns
- Measures
- Calculated Tables
- Row Context vs Set Context
- Advanced calculations using Calculate functions
- Time Intelligence Functions
- Quiz Module 5

06

Reports in Power BI

- Create a new Power BI report
- The report editor in Power BI
- Add a page to a Power BI report
- Add a filter to a report in Power BI
- Save a report in Power BI
- About filters and highlighting in Power BI reports
- How to use report filters
- Analyze in Excel
- Change how visuals interact in a report



COURSE CURRICULUM

07

Reports & Visualization Types in Power BI

- Open a Power BI report in Reading View
- Go from Reading View to Editing View in Power BI
- Interact with a report in Editing View in Power BI
- Aggregates (sum, average, maximum, etc.) in Power BI
- Rename a report in Power BI
- Page display settings in a Power BI report
- Duplicate a report page in Power BI
- Delete a page from a Power BI report
- Rename a report page
- Quiz Module 6

- Types of visualization in a Power BI report
- Custom visualization to a Power BI report
- Download a custom visual from the gallery
- Getting started with color formatting and axis properties
- Change how a chart is sorted in a Power BI report
- Move, resize, and pop out a visualization in a Power BI report
- Drill down in a visualization in Power BI

- Histograms
- Basic Area chart
- Combo Chart in Power BI
- Customize visualization title, background, and legend
- Customize X-axis and Y-axis properties
- Doughnut charts in Power BI
- Enhanced Scatter charts in Power BI
- Funnel charts in Power BI
- KPI Visuals
- Radial Gauge charts in Power BI
- Scatter Charts in Power BI
- Slicers in Power BI
- Tree Maps in Power BI
- Waterfall charts in Power BI
- Quiz Module 7



COURSE CURRICULUM

08

Dashboards in Power BI

- Create a Power BI dashboard
- Dashboard tiles in Power BI
- Pin a tile to a Power BI dashboard from a report
- Power BI publisher for Excel
- Pin an entire report page to a Power BI dashboard
- Data alerts in Power BI service
- Add an image, text box, video, or web code to your dashboard

- Edit a tile – resize, move, rename, pin, delete, add hyperlink
- Tips for designing a great Power BI dashboard
- Print a dashboard, print a dashboard tile, print a report page
- Display dashboards and reports in Full Screen mode (TV mode)
- Display a dashboard tile in Focus mode
- Featured dashboards in Power BI
- Create a phone view of a dashboard
- Add an image to a dashboard
- Quiz Module 8

09

Data Refresh in Power BI

- Configure scheduled refresh
- Refresh a dataset created from a Power BI Desktop file – local
- Refresh a dataset created from a Power BI Desktop file – cloud
- Refresh a dataset created from an Excel workbook – local
- Disable privacy settings
- Quiz Module 9



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COURSE CURRICULUM

10

Projects – End to End Data Modelling & Visualization

- Project 1
- Project 2

11

Complimentary Module Soft Skills Development

- Business Communication
- Preparation for the Interview
- Presentation Skills

12

Complimentary Module 2: Resume Writing

- Resume Writing



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DATA ANALYTICS WITH QLIK SENSE COURSE

- Duration: 10+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹31,000



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COURSE CURRICULUM

01

Introduction to Qlik Sense

- What is Qlik Sense?
- Introduction to Qlik Sense.

02

Import Data into Qlik Sense

- Data Import
- How to import Data into Qlik Sense

03

Explore Qlik Sense Desktop

- To Explore Qlik Sense Desktop



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COURSE CURRICULUM

04

Building Dashboards in Qlik Sense

Learn about building Dashboards in Qlik Sense

- Dashboards Building in Qlik Sense

05

Introduction to Data and Database

Learn about The Data and Database

- What is Data and Database
- Introduction to Data and Database

06

Data Modelling in Qlik Sense

Understand about Data Modelling in Qlik Sense

- What is Data Modelling
- Data Modelling in Qlik Sense



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COURSE CURRICULUM

07

Data Transformation in Qlik Sense

Learn What is Data Transformation and further understand about Data Transformation in Qlik Sense

- What is Data Transformation
- Learn Data Transformation in Qlik Sense

08

Types of Loads in Qlik Sense

Learn about Types of Loads in Qlik Sense

- Types of loads
- Types of loads in Qlik Sense

09

Script Functions

Learn What is Script Functions

- What is Script Functions



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COURSE CURRICULUM

10

Concept of Set Analysis

Learn the Concept of Set Analysis

- Concept of Set Analysis

11

Advanced Qlik Sense Features

Learn about what are the Qlik Sense Advanced Features

- Qlik Sense Advanced Features

12

Qlik Best Practices

Learn what are the Qliks Best Practices

- What are Qlik's Best Practices



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COURSE CURRICULUM

13

Section Access in Qlik Sense

Learn How to access section in Qlik Sense

- Section Access in Qlik Sense

14

Introduction to Qlik Sense QMC

Learn what is Qlik Sense QMC

- What is Qlik Sense QMC

15

Complimentary Module Soft Skills Development

- Resume Writing
- Business Communication
- Preparation for the Interview
- Presentation Skills



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DATA ANALYTICS WITH MS POWER BI COURSE

- Duration: 8+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹13,000



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COURSE CURRICULUM

01

Introduction to Power BI

- Introduction to Business Intelligence
- The Importance of Business Intelligence
- The Relationship between Business Intelligence and Data Warehouse
- Tools and Technologies in the Business Intelligence area

02

Import Data into Power BI

- Power Query
- Power Pivot
- Power View

03

Explore Power BI Desktop

- Microsoft query engine
- Data modeling
- Visualization technologies



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COURSE CURRICULUM

04

Building Report in Power BI

- Install Power BI Desktop for Power BI Report Server
- Select a data source
- Select a Report Server

05

Explore Visualization in Power BI

- Area charts: Basic (Layered) and Stacked
- Bar and column charts
- Combo charts
- Doughnut charts
- Funnel charts
- Gauge charts
- KPIs
- Line charts

06

Explore Power Query

- Importing Data
- Cleaning Data
- Reshaping Data



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07

Data Modeling in Power BI

- Hierarchical Model
- Relational Model
- Network Model
- Entity-Relationship

08

DAX in Power BI

- Numeric: numeric data types include decimals, currency values, integers, etc.
- Non-numeric: it consists of strings, binary objects, etc.

09

Advanced Power BI Features

- Natural Language Q & A Question Box
- Azure Machine Learning Integration
- Custom Visual Development with R and Python Script
- Easy integration with Microsoft Power Suite {Power App, Power Automate, and Power Query}
- Predictive Analysis



COURSE CURRICULUM

10

Row Level Security in power BI

- DirectQuery
- RLS on datasets
- DAX expression
- Implementing RLS

11

Power BI Service

- Uploaded Excel
- CSV
- Power BI Desktop files.

12

Python Installation and Configuration

- Python installation
- Python Configuration
- Python Script



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COURSE CURRICULUM

13

Python Integration with Power BI

- Python scripting
- Python in Power BI
- Python Algorithms

14

Complimentary Module Soft Skills Development

- Business Communication
- Preparation for the Interview
- Presentation Skills

15

Complimentary Module 2: Resume Writing

- Resume writing

CAREER OPPORTUNITIES FOR DATA ANALYTICS & BI



- Data Analyst
- Power BI Developer
- Business Intelligence (BI) Analyst
- Data Visualization Specialist
- Reporting & Insights Analyst
- Business/Data Reporting Developer
- Analytics Consultant
- Operations/Data Insights Analyst



ALGOFORGE STUDIOS

WHY CHOOSE ALGOFORGE

AlgoForge Studios stands out as a leading training hub because we combine industry expertise with practical, project-driven learning. All our courses are taught by experienced professionals with strong real-world backgrounds. We focus on hands-on training through live projects, case studies, and real client assignments, ensuring students gain skills that directly meet industry needs. Our programs are powered by advanced infrastructure including NVIDIA DGX A100 systems for high-performance AI and deep learning workloads. We also provide internships, placement support, personalized mentorship, and portfolio-building guidance to help students confidently begin their careers. With flexible learning options, an updated curriculum, and affordable fees, AlgoForge Studios offers a complete, career-focused pathway for anyone looking to excel in tech.



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GET IN TOUCH WITH US

Thank you for joining us on this journey through innovation and technology. For further inquiries or collaborations, please feel free to contact us



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