





# DATA ANALYTICS







Data is everywhere, but how do businesses make sense of it?

Data Analytics helps organizations uncover hidden patterns, predict trends, and make smarter decisions. From Netflix recommending your favorite shows to banks detecting fraud, data analytics powers industries worldwide. Companies rely on data to improve marketing, optimize operations, and enhance customer experiences, making this one of the most in-demand fields today.





# **Career Opportunities**



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# **Journey With TeqCertify**



# Capstone Project Solving Real-World Problems with Data

# Power BI Turning Raw Data into Actionable Insights

# Python Enabling Data Manipulation & Automation

**SQL**Structuring & Querying Data with Precision

Excel
Organizing Data for Better Decision-Making



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# Path to your Dream Job



#### **Build a Standout Resume & Portfolio**

01

Craft an ATS-friendly resume.

Highlight key skills & achievements.

Showcase your best projects & experience.



#### **Master Interview Skills**

02

Improve communication & confidence.

Practice with mock interviews.



### **Get Expert Feedback & Identify Gaps**

02

Receive constructive feedback on interviews.

Understand areas that need improvement.



#### Improve & Upskill

04

Gain new skills based on feedback.

Strengthen technical & problem-solving abilities.

Enhance communication & presentation skills.



### **Land Your Dream Job**

05

Negotiate salary & job offers smartly.

Secure the right job that fits your goals.

Get mentorship for long-term career growth.



# Why should you invest in the track?



## Turn Numbers Into Game-Changing Insights

Data is like digital gold, and companies everywhere need experts to make sense of it. Learning data analytics opens doors to exciting careers in finance, healthcare, e-commerce, and more. With businesses relying on data for smart decisions, your skills will be in high demand for a successful future!

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# Syllabus Breakdown

Turn raw data into powerful insights! Learn how businesses use analytics to drive success.



### **Data Analytics Basics**

Discover how data shapes decision-making.



#### **Excel & SQL**

Master querying, filtering, and analyzing data.



### **Data Cleaning & Preprocessing**

Fix messy data and prepare it for analysis.



#### **Data Visualization**

Build dashboards using Power BI, Tableau & Python.



### **Statistical Analysis**

Use A/B testing and regression for predictions.



### **Business Analytics**

Track trends, measure KPIs, and optimize performance.



### **Hands-on Projects**

Solve real-world cases in marketing, finance & operations.





### Phase 1: Introduction to Data Analytics (4 Modules)

#### **Introduction to Data Analytics**

Understand the fundamentals of data analytics, its significance, and the complete data analysis process.

#### Unit 1: What is Data Analytics & Why It's Important?

Gain a foundational understanding of what data analytics is and how it drives business success across industries.

#### **Unit 2: The Data Analytics Process**

Explore the complete lifecycle of a data analytics project from problem definition to insight delivery.

#### **Unit 3: Types of Data Analytics**

Learn the four major types of data analytics—Descriptive, Diagnostic, Predictive, and Prescriptive—and how each supports decision-making.

#### **Unit 4: Real-World Applications of Data Analytics**

Discover how data analytics is used in real businesses through case studies and industry examples.





## Phase 2: Excel & SQL for Data Manipulation (9 Modules)

#### **Excel & SQL for Data Manipulation**

Master Excel and SQL to clean, analyze, and explore data efficiently.

#### **Unit 5: Data Cleaning & Transformation using Power Query**





#### **Unit 6: Exploratory Data Analysis in Excel**

Use Excel functions, Pivot Tables, and conditional logic to uncover hidden insights.

#### Unit 7: Data Visualization in Excel

Create impactful charts, graphs, and dashboards to communicate results visually.

#### Unit 8: Workflow Automation with Macros & VBA

Automate repetitive tasks using macros and Visual Basic for Applications.







## Phase 2: Excel & SQL for Data Manipulation (9 Modules)

#### **Unit 9: Introduction to Databases & Relational Models**

Understand database design, normalization, and relationships among data entities.

#### **Unit 10: Writing Efficient SQL Queries**

Learn SELECT, WHERE, ORDER BY, and filtering data with precision.



#### **Unit 11: Aggregations, Joins & Set Operations**

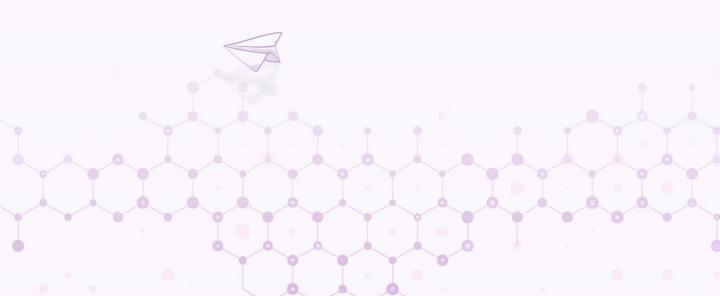
Master SQL GROUP BY, JOINs, UNION, and INTERSECT for combining and summarizing data.

#### **Unit 12: Query Optimization Techniques**

Speed up your queries with indexing, performance tuning, and smart structuring.

#### Unit 13: Advanced SQL: Subqueries, CTEs, Views & Triggers

Dive into reusable SQL patterns with CTEs, views, stored procedures, and triggers for dynamic workflows.





# Phase 3: Python for Data Analytics (5 Modules)



#### **Python for Data Analytics**

Analyze and visualize structured and unstructured data using Python.

#### Unit 14: Data Handling with NumPy & Pandas

Use Python libraries to load, clean, manipulate, and explore data.



#### **Unit 15: Exploratory Data Analysis Techniques**

Handle missing values, detect outliers, and transform datasets for analysis.



#### Unit 16: Data Visualization with Matplotlib & Seaborn

Create high-impact charts and graphs to represent patterns and trends.

#### **Unit 17: File Handling & Workflow Automation**

Read and write data in CSV, Excel, and JSON formats; automate file operations.

#### **Unit 18: Object-Oriented Programming & Debugging**

Write scalable code using classes and modules. Learn error handling for robust analysis workflows.



# Phase 4: Data Storytelling & Power BI (5 Modules)



#### **Data Storytelling & Power BI**

Transform insights into powerful visual narratives using Power BI.

#### **Unit 19: Getting Started with Power BI**

Connect data sources, explore the interface, and start your first dashboard.



#### Unit 20: Data Modeling & Relationship Management

Organize datasets with Power BI's modeling tools and manage table relationships.

#### **Unit 21: Creating Interactive Dashboards & Reports**

Design dashboards using visuals, slicers, and filters for interactive storytelling.



#### **Unit 22: Advanced DAX for Business Intelligence**

Implement calculated columns, measures, and time intelligence functions with DAX.

#### **Unit 23: Power BI Performance & Security**

Learn report optimization, row-level security (RLS), and integrations with Excel and Power Apps.





### Phase 5: Advanced Analytics & Predictive Insights (4 Modules)

#### **Advanced Analytics & Predictive Insights**

Apply statistical and machine learning methods to forecast and drive data-driven strategies.

#### **Unit 24: Data Cleaning & EDA Best Practices**

Refine and prepare datasets for accurate analysis.



#### **Unit 25: Descriptive & Inferential Statistics**

Understand central tendency, variance, distributions, and sampling techniques.

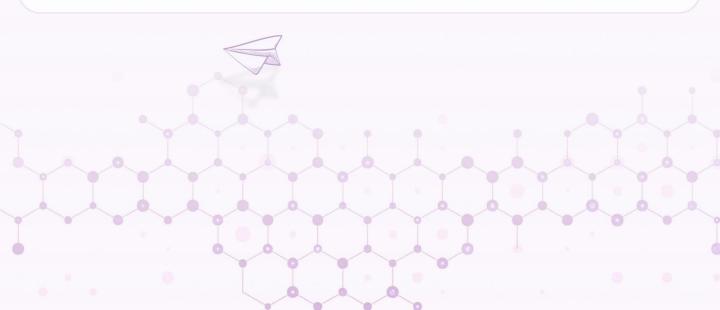
#### **Unit 26: Hypothesis Testing for Decision-Making**

Use t-tests, chi-square tests, and p-values to validate business assumptions.

#### Unit 27: Time Series Analysis & Forecasting

Model and predict future trends using time series methods.





# Sample Projects



Deloitte.

# **Google Analytics for Financial Institute**

Tracks web traffic, search data, user behavior, and social media engagement insights.



# **Healthcare Predictive Analytics**

A hospital used analytics to predict patient complications, enhancing care and reducing readmissions.

## **Customer Segmentation for Retail**



A retail company used analytics to identify customer segments, enabling personalized marketing and boosting sales.

### Supply Chain Optimization for E-commerce



An e-commerce company optimized inventory and delivery through data analytics, improving customer experience.

# Few of our hiring partners









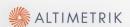










































# Student Testimonials





Vinoth Kumar

Data Engineer



J.P.Morgan



Valli Raja Sekar Sr. Data Scientist





Rajashekaran **Sr. Data Analyst** 





Your Name
Your Role

You can be here

# **Contact us**



For further details write to us at

















