



# DATA ANALYTICS



# Why Data Analytics?

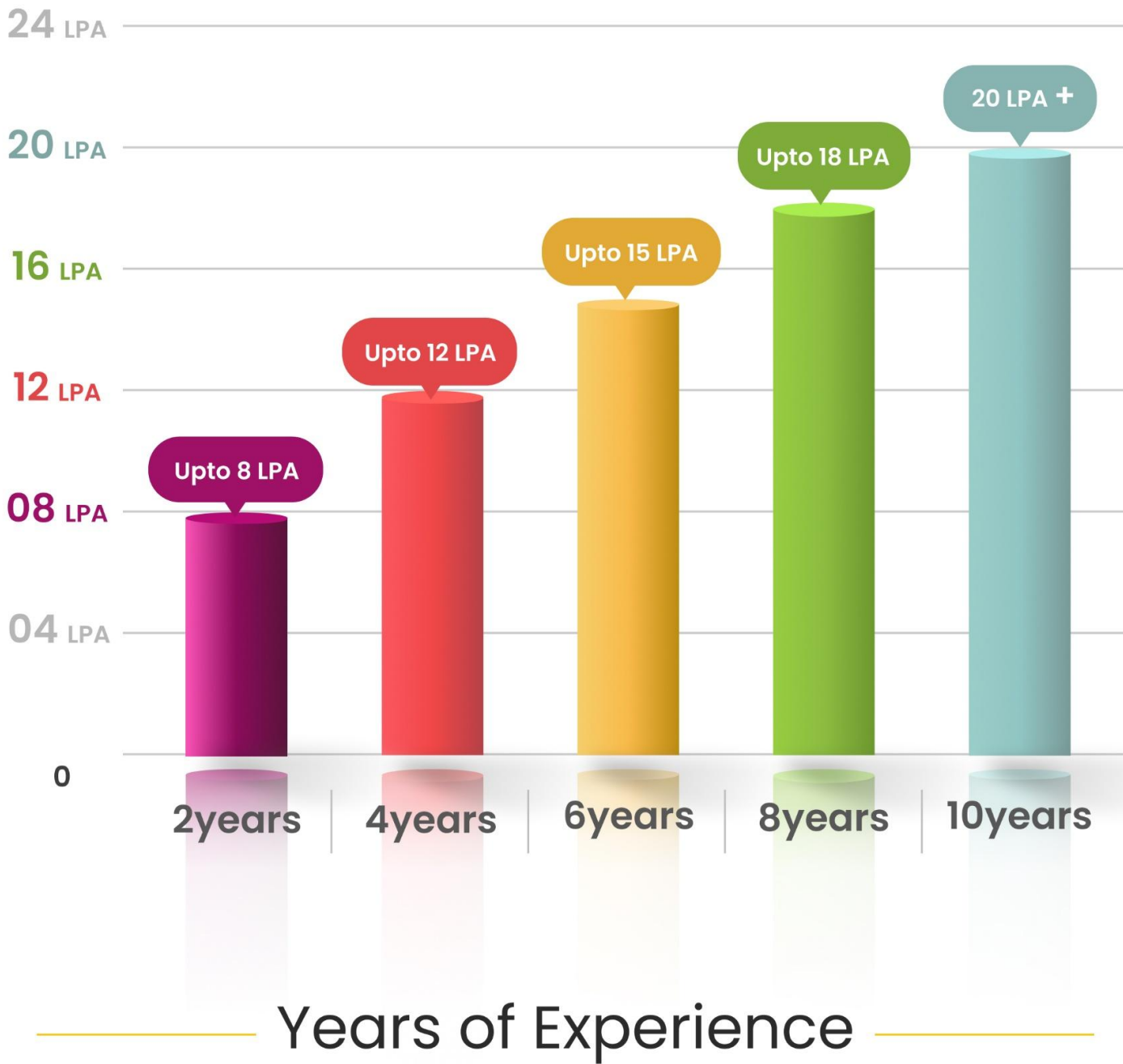
Data is everywhere, but how do businesses make sense of it?

**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





# 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





# 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

Learn how to answer tricky questions.  
Improve communication & confidence.  
Practice with mock interviews.



## Get Expert Feedback & Identify Gaps

03

Receive constructive feedback on interviews.  
Understand areas that need improvement.  
Make necessary revisions.



## 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?

**25%**

Market growth in  
2020 - 2030

**101K+**

Job Vacancies  
every month

**32%**

India's share in  
the Global  
Market

**6LPA**

Avg salary for  
freshers

**75%**

Job  
Satisfaction

## 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!



# Syllabus Breakdown

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

01

## Data Analytics Basics

Discover how data shapes decision-making.

02

## Excel & SQL

Master querying, filtering, and analyzing data.

03

## Data Cleaning & Preprocessing

Fix messy data and prepare it for analysis.

04

## Data Visualization

Build dashboards using Power BI, Tableau & Python.

05

## Statistical Analysis

Use A/B testing and regression for predictions.

06

## Business Analytics

Track trends, measure KPIs, and optimize performance.

07

## 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.

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### 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.

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### Unit 2: The Data Analytics Process

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

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### 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.

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### 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

Learn to import and clean raw data using Power Query for smooth analysis.



#### 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.

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### Unit 10: Writing Efficient SQL Queries

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

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

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

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### Unit 12: Query Optimization Techniques

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

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### 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.

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

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

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#### Unit 15: Exploratory Data Analysis Techniques

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

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

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

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

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

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

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

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



### Data Storytelling & Power BI

Transform insights into powerful visual narratives using Power BI.

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

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

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

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

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

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

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

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

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

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

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## 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

The Deloitte logo, consisting of the word "Deloitte" in a bold, black, sans-serif font, followed by a small red period. It is positioned to the right of the project title.

**Deloitte.**

### **Google Analytics for Financial Institute**

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

The Pfizer logo, featuring a blue stylized 'P' icon followed by the word "Pfizer" in a blue, sans-serif font. It is positioned to the right of the project title.

**Pfizer**

### **Healthcare Predictive Analytics**

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

The Kmart logo, featuring the word "Kmart" in a bold, red, sans-serif font with a blue outline. It is positioned to the right of the project title.

**Kmart**

### **Customer Segmentation for Retail**

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

The Avigna Retail logo, featuring a stylized blue flower icon followed by the word "AVIGNA" in a blue, sans-serif font and "RETAIL" in a smaller, blue, sans-serif font below it. It is positioned to the right of the project title.

**AVIGNA**  
RETAIL

### **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**



**Valli Raja Sekar**  
**Sr. Data Scientist**



**Rajashekaran**  
**Sr. Data Analyst**



**Your Name**  
**Your Role**

You can be here



Contact us



**TeqCertify**

Elevate Your Data Journey



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