

# Roadmap to Become a Data Analyst with Free Resources.

**Who is a Data Analyst?** A data analyst is a professional who gathers, processes and analyzes data to help organizations make informed decisions. Their role involves cleaning and organizing raw data, identifying key metrics, and presenting their findings in a way that's easy to understand, helping businesses solve problems and improve efficiency. A data analyst bridges the gap between raw data and actionable business strategies.

## Key Skills to Become a Data Analyst

Key skills for data analysts include:

1. **Data Cleaning & Preparation:** Ensuring raw data is cleaned, structured, and ready for analysis.
2. **Statistical Knowledge & Mathematics:** A strong foundation in basic statistics and math to analyze trends and patterns.
3. **Data Visualization:** Ability to present data insights clearly using tools like Power BI, Tableau, or Excel.
4. **Programming Languages:** Proficiency in SQL, and optionally Python or R, for data querying and manipulation.
5. **Critical Thinking:** The skill to analyze data, ask meaningful questions, and interpret results effectively.
6. **Communication:** Clearly presenting insights and reports to both technical and non-technical audiences.
7. **Data Storytelling:** Translating data into compelling narratives that drive decision-making.
8. **Domain Knowledge:** Understanding the business context and industry-specific knowledge to tackle scenario-based questions and provide relevant insights.

## Tools Required?

**Excel:** Essential for data cleaning, analysis, and creating basic reports.

**SQL:** Key for querying databases and extracting meaningful data.

**Visualization Tools (Power BI or Tableau):** Crucial for presenting data insights through interactive visuals.

**Python or R:** Powerful for advanced data analysis and statistical computations.

**Mathematics & Statistics:** Fundamental for interpreting data trends and performing deeper analyses.

**Machine Learning:** Enhances data analysis by enabling predictive modeling and automation.

## Excel (Duration - 1 Month)

To help you get started -

Language (Hindi) -  **Excel Full Course for Data Analysis with Projects [ 2 Hours] | Exc...**

Language (English) -

 **MS EXCEL Full Course for Beginners in 3 HOURS (FREE) - 2024 Edition**

Project -  **EXCEL Full PROJECT for Data Analysis with Practical [2 Hours] | End-to-En...**

Excel Practice - <https://excelexercises.com/>

## SQL (Duration - 2 Months)

To help you get started -

Language (Hindi) -  **SQL Full Course for Data Analytics in 1 HOUR  | Learn SQL for ...**

Language (English) -  **MySQL for Data Analytics Full Course with Practical [2024] | Le...**

Practice SQL Questions on these websites-

<https://www.hackerrank.com/>

[https://sqlzoo.net/wiki/SQL\\_Tutorial](https://sqlzoo.net/wiki/SQL_Tutorial)

<https://datalemur.com/>

<https://leetcode.com/>

SQL Project -

 **SQL For Data Analysis Full Portfolio Project with Practical [1Hour] | End-to-End SQL P...**

## Visualization (Duration - 1-1.5 Months)

To help you get started with Power BI -

▶ **Power BI Full Course in 6 Hours | Learn Power BI for Beginners with Project - 2024 Ed...**

Project Ideas -

<https://www.projectpro.io/article/power-bi-microsoft-projects-examples-and-ideas-for-practice/533>

DAX Formulas -  **Dax formulas wscube.pdf**

## Maths and Stats (Duration - 2 weeks) - ChatGPT

**Descriptive Statistics:** Mean, median, mode, standard deviation, and variance for summarizing data.

**Probability:** Basic probability concepts, distributions, and conditional probability.

**Inferential Statistics:** Hypothesis testing, confidence intervals, and p-values for drawing conclusions from data samples.

**Linear Algebra:** Useful for data manipulation, especially in machine learning algorithms.

**Correlation & Regression:** Understanding relationships between variables and predicting outcomes.

**Time Series Analysis:** For analyzing data over time and identifying trends.

## Python (Duration - 1-2) Months

To help you get started -

▶ **Data Analytics FULL Course for Beginners to Pro in 29 HOURS - 2024 Edition**  
Till 13:28:44

Questions for Logic Building in Python -

▶ **100+ Python Programs with Practicals for Beginners** 🔥🐍

Pandas Practice Questions - <https://leetcode.com/>

Data Cleaning in Python -

▶ **Data Cleaning Full Course for Data Science, Data Analysis, Machine Learning [FREE] ...**

Project - ▶ **Complete Data Analytics Portfolio Project with Python and SQL in 2 Hours | ...**

For more in-depth knowledge, Join our **DATA ANALYTICS MENTORSHIP PROGRAM** -

20 weeks



# Data Analytics Mentorship Program

Get Mentored by Top Data Analysts



amazon



Microsoft



rapido  
Bike Taxi



KPMG



WSCUBE TECH  
Upskilling Bharat

**Announcing Cohort-2**

Applications are open!

 Early Bird Offer

40% OFF for First 50 Seats

**Apply Now**

#DataisCareer

**Apply Now and Get 40% off for First 50 Seats -**

[https://www.wscubetech.com/data-analytics-course?utm\\_source=wscubetech\\_website&utm\\_medium=youtube\\_ANN&utm\\_campaign=DAMP\\_Cohort\\_2\\_Sep](https://www.wscubetech.com/data-analytics-course?utm_source=wscubetech_website&utm_medium=youtube_ANN&utm_campaign=DAMP_Cohort_2_Sep)

## Thank You