

# 1 Vendor Performance Analysis Project

## Project Overview

Analyze supplier performance using key business metrics to identify high-performing vendors, optimize procurement strategies, and reduce costs. Learn how data-driven evaluation helps improve business efficiency.

## What You'll Learn

-  Data cleaning and preprocessing for vendor data
-  EDA and statistical analysis to assess performance trends
-  Building Power BI dashboards for KPI visualization
-  Interpreting metrics like on-time delivery, defect rate, and cost efficiency
-  Creating a professional report for management

## Project Pipeline

1. Import and clean vendor performance data
2. Perform exploratory and statistical analysis
3. Build Power BI dashboard for performance tracking
4. Generate actionable insights for decision-making
5. Prepare report summarizing findings

## Resources You'll Get Inside: [https://topmate.io/ayushi\\_mishra/page/vyNvUQ2k54](https://topmate.io/ayushi_mishra/page/vyNvUQ2k54)

-  Cleaned & Raw Datasets
-  Python Scripts for ETL
-  Power BI Dashboard (PBIX File)
-  EDA & Hypothesis Testing Notebook
-  Final Report

## Learn How to Build It

### Watch Full Tutorial:

<https://www.youtube.com/watch?v=nmCfNHjfgEY&t=6736s&pp=0gcJCSIKAYcqIYzv>

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## 2 A/B Testing & Regression Analysis Project

### Project Overview

A statistical project focused on A/B testing and regression analysis. Learn how marketing agencies use experiments to identify the best-performing platform for ads and predict conversions post-selection.

### What You'll Learn

-  Formulating research questions and hypotheses
-  Performing A/B testing for platform selection
-  Running regression analysis to predict conversions
-  Interpreting weekly and monthly performance trends
-  Presenting results to non-technical stakeholders

### Project Pipeline

1. Define business objective (select ad platform)
2. Collect and clean campaign performance data
3. Conduct A/B test
4. Apply regression analysis
5. Summarize insights and recommendations



Resources You'll Get Inside: [https://topmate.io/ayushi\\_mishra/961244](https://topmate.io/ayushi_mishra/961244)



Dataset



Python Notebook for Analysis

### Learn How to Build It



<https://www.youtube.com/watch?v=iCj4lT5KvJk&t=2552s>

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## 3 Maximizing Revenue for Drivers using Python

### Project Overview

A hypothesis testing project that explores how drivers can increase their revenue using data analysis. Showcase your ability to test assumptions and make business-driven recommendations.

### What You'll Learn

-  Define business hypothesis and test statistically
-  Choose correct statistical tests
-  Analyze revenue and driver data
-  Present results using storytelling and visuals

### Project Pipeline

1. Define hypothesis
2. Perform data cleaning
3. Run hypothesis tests
4. Analyze results and interpret findings
5. Prepare professional report



Resources You'll Get Inside: [https://topmate.io/ayushi\\_mishra/886630](https://topmate.io/ayushi_mishra/886630)



Dataset



Analysis Notebook



PPT with Insights



Learn How to Build It



Watch Full Tutorial

<https://www.youtube.com/watch?v=fNdUIzq8sb0&t=21s>

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## 4 Airlines Data Analysis Project

### Project Overview

Perform end-to-end analysis of airline occupancy and profitability using Python and SQL. Understand how airlines balance costs, environmental factors, and profitability.

### What You'll Learn

- ★ SQL querying and data extraction
- ★ Python-based analysis and visualization
- ★ Business decision-making using data
- ★ Writing a professional report

## Project Pipeline

1. Extract & transform data using SQL
2. Analyze occupancy & profit metrics
3. Visualize findings with Python
4. Write analytical report



Resources You'll Get Inside: [https://topmate.io/ayushi\\_mishra/317474](https://topmate.io/ayushi_mishra/317474)



Dataset



Python + SQL Files



Detailed Report



Learn How to Build It



Watch Full Tutorial

[https://www.youtube.com/watch?v=LcMjsqZiSjY&list=PLunlGNVWDAabJk\\_eCr5XtXLnaU-lxeyo\\_&index=3&pp=gAQBiAQB](https://www.youtube.com/watch?v=LcMjsqZiSjY&list=PLunlGNVWDAabJk_eCr5XtXLnaU-lxeyo_&index=3&pp=gAQBiAQB)

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## **5 Financial Analysis (CAPM) Project using Python**

### Project Overview

A time series financial analysis web app showcasing your Python and finance knowledge. Learn to apply CAPM and portfolio theory for market analysis.



What You'll Learn

- ★ Implement CAPM in Python
- ★ Analyze stock returns and risk
- ★ Create visualizations for financial data
- ★ Build a simple interactive dashboard

## Project Pipeline

1. Import stock data
2. Perform CAPM calculations
3. Visualize portfolio performance
4. Generate insights and report



Resources You'll Get Inside: [https://topmate.io/ayushi\\_mishra/318261](https://topmate.io/ayushi_mishra/318261)



Dataset



Python Code for CAPM Model



Learn How to Build It



Watch Full Tutorial

Part 1:

[https://www.youtube.com/watch?v=ibkrdqM2naU&list=PLunIGNVWDAbJk\\_eCr5XtXLnaU-lxeyo\\_&index=7&pp=gAQBiAQB](https://www.youtube.com/watch?v=ibkrdqM2naU&list=PLunIGNVWDAbJk_eCr5XtXLnaU-lxeyo_&index=7&pp=gAQBiAQB)

Part 2:

[https://www.youtube.com/watch?v=IY8HZ2Z\\_sn4&list=PLunIGNVWDAbJk\\_eCr5XtXLnaU-lxeyo\\_&index=8](https://www.youtube.com/watch?v=IY8HZ2Z_sn4&list=PLunIGNVWDAbJk_eCr5XtXLnaU-lxeyo_&index=8)

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## 6 User Engagement Analysis using Python and SQL

### Project Overview

Understand how companies use SQL to analyze user engagement data. Learn advanced querying and storytelling with SQL and Python.

### What You'll Learn

- ★ Real-world SQL data analysis
- ★ Advanced queries for insights
- ★ Combining Python + SQL for analytics
- ★ Creating a detailed presentation report

## Project Pipeline

1. Create and store database tables
2. Fetch and analyze engagement data
3. Visualize user metrics
4. Prepare insights report



Resources You'll Get Inside: [https://topmate.io/ayushi\\_mishra/932870](https://topmate.io/ayushi_mishra/932870)



Database Creation Notebook



Analysis Notebook



Report PPT



Learn How to Build It



Watch Full Tutorial

<https://www.youtube.com/watch?v=2VMAdlzNuTw&t=4509s>

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## 7 Hotel Booking Analysis using Python

### Project Overview

Analyze hotel booking patterns to identify reasons for cancellations and optimize operations. A practical project solving a real business problem.



What You'll Learn

- ★ EDA and data visualization
- ★ Understanding business impact of booking behavior
- ★ Creating clear reports for management
- ★ Communicating data stories effectively



Project Pipeline

1. Load and clean booking data
2. Analyze cancellation patterns
3. Visualize seasonal and pricing trends

#### 4. Present actionable insights



**Resources You'll Get Inside:** [https://topmate.io/ayushi\\_mishra/317433](https://topmate.io/ayushi_mishra/317433)



Complete Code



Dataset



PDF Report



**Learn How to Build It**



Watch Full Tutorial

[https://www.youtube.com/watch?v=obJZ1rB7TKc&list=PLunIGNVWDAabJk\\_eCr5XtXLnaU-lxeyo\\_&index=1&pp=gAQBiAQB](https://www.youtube.com/watch?v=obJZ1rB7TKc&list=PLunIGNVWDAabJk_eCr5XtXLnaU-lxeyo_&index=1&pp=gAQBiAQB)

### More Useful Resources:

**Get Complete bundle of 7 projects in less price:**

[https://topmate.io/ayushi\\_mishra/770872?utm\\_source=public\\_profile&utm\\_campaign=ayushi\\_mishra](https://topmate.io/ayushi_mishra/770872?utm_source=public_profile&utm_campaign=ayushi_mishra)

**Complete Job Preparation and Interview Guide:** [https://topmate.io/ayushi\\_mishra/842027](https://topmate.io/ayushi_mishra/842027)

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