

Data Analytics Projects for **Interview**



1 SALES INSIGHTS:



Guided Playlist:

<https://www.youtube.com/playlist?list=PLeo1K3hjS3uva8pk1FI3iK9kCOKQdz1I9>

Project Details:

This project will give you a feel of how data analysis projects are executed in big companies.

► Scenario:

Atliq Hardwares – a computer hardware business facing challenges to increase revenue in a dynamically changing market. The sales director needs a dashboard that can give him real-time sales insights that will provide him insights to increase revenue.

► What you will do:

As a data analyst you will provide this dashboard to the sales director.

► Domain: FMCG

► Function: Sales

Skills Acquired:

- ▶ **Tech:** SQL, Power BI.
- ▶ **Core:** Business understanding, analytical mindset.

How to add it to a resume:

Use STAR Method (Situation, Task, Action, Result)

▶ Below is an example:

- ▶ **Situation:** Computer hardware business facing challenges in scaling within a dynamically changing market and lacking actionable insights.
- ▶ **Task / Action:** Performed data analysis using SQL and Power BI to track revenue growth, year-over-year (YOY) trends, and region-wise sales performance.
- ▶ **Result:** The dashboard enabled quick, data-informed decisions, effectively displaying sales trends and potentially raising revenue by at least 7% in the next quarter.

How to explain this in an interview:

When you're in an interview, the interviewer will likely ask questions based on what you've written in your resume. It's important to be confident in explaining these details verbally.

One tricky part is explaining the results, especially if you haven't done the project in a real company. For example, you might estimate that the project could lead to up to 7% revenue savings. If the interviewer asks follow-up questions, you should be ready to explain how this project can save costs.

Think about it this way: the dashboard you're describing provides actionable insights for stakeholders. These insights can help them make informed business decisions, like optimizing products, prioritizing customers, and evaluating sales performance. All these actions can contribute to an increase in revenue.

So, be prepared to talk about how these insights can lead to cost savings and revenue growth, even if you're basing it on an estimate. Showing that you understand the potential impact of your work will impress the interviewer.

2 REVENUE INSIGHTS:



Guided Playlist:

<https://www.youtube.com/watch?v=tT4V7zguCnc>

Project Details:

In this project, you'll learn how data analysts build real-time dashboards from industry experts Abhishek Anand (Revenue Manager at OYO) and Hemanand (Data Analytics Expert).

► Scenario:

AtliQ Grands, a luxury/business hotel chain, is experiencing a decline in market share and revenue due to increased competition and poor management decisions. The managing director plans to adopt "Business and Data Intelligence" to reverse this trend.

► What you will do:

As a data analyst, you will collaborate with industry experts to analyze the hospitality data, participate in stakeholder discussions, and create actionable insights to improve AtliQ Grands' market position and revenue.

► **Domain:** Hospitality Industry

► **Function:** Revenue

Skills Acquired:

► **Tech:** Power BI along with dashboarding.

► **Core:** Stakeholder discussions, get business understanding and develop an analytical mindset.

How to add it to a resume:

Use STAR Method (Situation, Task, Action, Result)

► **Below is an example:**

- **Situation:** Atliq Grand, a five-star hotel, noticed a loss in its market share and wanted to address this issue.
- **Task:** To facilitate data-informed decision-making, I developed an end-to-end dashboard.
- **Action:** Using Power BI, I analysed data to track revenue by category, trends by key metrics, property performance, realization percentage, and several other KPIs.
- **Result:** This dashboard enabled the Revenue team to regain their revenue and market share by 20% in the next month.

How to explain this in an interview:

In this project, you'll gain a deeper understanding of the hotel business. Raghavan, a data analyst at Ford, explained this project to an interview panel through a presentation. Sometimes, it's beneficial to create a separate presentation for your project.

► **Check out the presentation here:**

<https://codebasics.io/resources/becoming-a-data-analyst-at-ford-after-7-years-in-mechanical-engineering>

3 CRICKET INSIGHTS:



Guided Playlist:

https://youtu.be/4QkYy1wANXA?si=FSi_CNUrVG6Qlxhl

Project Details:

In this project, we will cover web scraping (from the ESPN Cricinfo website), python, pandas, and Power BI to perform analyses on T20 World Cup cricket data.

► Scenario:

The objective of this project is to assemble the best 11-player team for T20 World Cup. Comprehensive insights from the 2022 T20 World Cup data are required to make informed decisions on player selection.

► What you will do:

As a data analyst, you will scrape data from the ESPNcricinfo website using Bright Data, transform and clean the data with pandas, and create a detailed dashboard in Power BI. This dashboard will help in identifying the best-performing players.

► Domain: Sports

Skills Acquired:

- ▶ **Tech:** Power BI, Python (Pandas).
- ▶ **Core:** Deeper analytical mindset.

How to add it to a resume:

Use STAR Method (Situation, Task, Action, Result)

▶ Below is an example:

- ▶ **Situation:** Analyzed data to pick the best 11 combinations for the T20 World Cup 2022.
- ▶ **Task:** Extracted data from ESPNcricinfo, cleaned and transformed it using Pandas for accurate analysis.
- ▶ **Action:** Created Power BI dashboards to visualize key player statistics like batting averages and bowling performance.
- ▶ **Result:** Provided dashboards with clear insights into player performances, aiding decision-makers in selecting the best team for the T20 World Cup 2022 based on solid data analysis.

How to explain this in an interview:

Add this project only if you have a good knowledge of cricket, because there's a good chance your hiring manager knows cricket.

Conceptually, this project is great for decision-making and provides the flexibility to try different combinations. This is a common use case in analytics, so make sure to emphasize that when you explain it.

4 TELECOM ANALYSIS:



Resources:

<https://codebasics.io/challenge/codebasics-resume-project-challenge/6>

Project Details:

In this project, you'll learn how to analyze and compare key performance indicators (KPIs) using data analytics techniques. You will focus on evaluating the impact of a significant business change—in this case, the launch of 5G plans by AtliQo—and derive actionable insights to inform strategic decisions.

► Scenario:

AtliQo, one of India's leading telecom providers, launched its 5G plans in May 2022. However, since the launch, the company has observed a decline in active users and revenue growth. The business director has requested the analytics team to provide a comparison report of key performance indicators (KPIs) between the periods before and after the 5G launch. The management aims to understand the performance differences and gather insights to make informed decisions for recovering the active user rate and optimizing their internet plans.

► What you will do:

As a data analyst, you will analyze the KPIs for the periods before and after the 5G launch. You will create a comparison report highlighting key trends and insights. Additionally, you will provide recommendations for optimizing internet plans to attract more active users and improve overall performance.

► **Domain:** Telecom

► **Function:** Executive Management

Skills Acquired:

► **Tech:** Applying Power BI knowledge, creating a dashboard using the mock-up provided by business users.

► **Core:** How to present insights to top-level management.

How to add it to a resume:

Use STAR Method (Situation, Task, Action, Result)

► Below is an example:

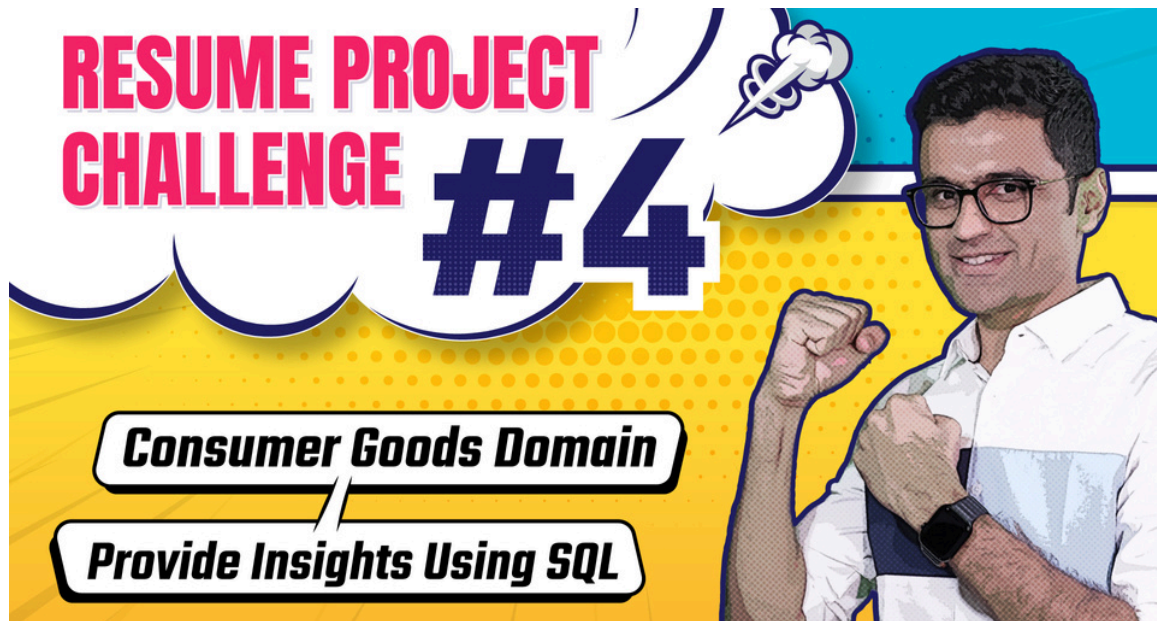
- **Situation/ Task:** Developed a Power BI dashboard to analyze the impact of the 5G launch on overall business.
- **Action:** Provided insights into 3 major aspects of business KPIs (Revenue, Average revenue per user, active users), Market share after launching the service vs before launching the service.
- **Result:** The report will help them understand the impact of their product launch and identify areas for improvement, potentially leading to a revenue increase of up to 10%.

How to explain this in an interview:

While explaining this project focus on the conceptual use case. The use case is centered around the comparison of a Key Performance Indicator (KPI) before and after an event. By this method, the impact of the event can be effectively measured.

This approach is commonly utilized in business to assess and understand the influence of various events on operational or strategic outcomes. In our project this approach helps us tailor our strategies effectively, catering specifically to the needs and preferences of each group.

5 EXECUTIVE MANAGEMENT



Resources:

<https://codebasics.io/challenge/codebasics-resume-project-challenge/7>

Project Details:

In this project, you'll learn how to answer ad hoc questions by querying SQL databases and providing real-time insights and solutions for business needs.

► Scenario:

AtliQ Hardwares, a leading computer hardware producer in India with an international presence, is looking to enhance its data-driven decision-making capabilities. To achieve this, the company plans to expand its data analytics team by hiring junior data analysts. Tony Sharma, the data analytics manager, emphasizes the importance of both technical and soft skills for these roles and has proposed a SQL challenge to evaluate candidates on both fronts.

► What you will do:

As a data analyst, your task involves querying the data to answer ad hoc business questions and provide actionable insights.

▶ **Domain:** Consumer Goods Industry

▶ **Function:** Executive Management

Skills Acquired:

▶ **Tech:** Applying SQL knowledge to solve several business queries.

▶ **Core:** Improving your analytical mindset, presentation and communication skills.

How to add it to a resume:

Use STAR Method (Situation, Task, Action, Result)

▶ **Below is an example:**

- ▶ **Situation/ Task:** Presented insights on 10 ad-hoc business requests from a database with millions of rows to the executive management team to aid in informed decision-making.
- ▶ **Action:** Queried the database using SQL to extract relevant data and present the insights effectively.
- ▶ **Result:** Insights from my presentation have the potential to significantly reduce overall operational costs by approximately 10%.

How to explain this in an interview:

Focus on explaining the different SQL queries and functions you used in providing these insights.

The hiring manager would want to understand 2 things

- ▶ How familiar you are with SQL.
- ▶ How efficiently you can translate the business questions to SQL queries.

6 CREDIT CARD ANALYSIS:



Resources:

<https://codebasics.io/challenge/codebasics-resume-project-challenge/11>

Project Details:

In this project, you will learn how to analyze and derive insights from customer data to support strategic business decisions in the financial sector.

► Scenario:

Mitron Bank, a legacy financial institution headquartered in Hyderabad, is planning to introduce a new line of credit cards to expand its product offerings and market reach. AtliQ Data Services, upon learning about this opportunity, proposed their services to Mitron Bank. However, the bank's strategy director, Mr Bashnir Rover, is sceptical and has requested a pilot project with sample data before committing to the full project. The sample dataset consists of 4,000 customers across five cities, detailing their online spending and other relevant information.

► What you will do:

As a data analyst, you will query the sample data to analyze customer spending patterns and generate a comprehensive report. This report will provide insights to support Mitron Bank's new credit card launch.

▶ **Domain:** Banking

▶ **Function:** Strategy

Skills Acquired:

- ▶ **Tech:** Applying Power BI knowledge, building effective measures, and compelling visualizations.
- ▶ **Core:** Converting complex data to presentable insights to top-level management.

How to add it to a resume:

Use STAR Method (Situation, Task, Action, Result)

▶ **Below is an example:**

- ▶ **Situation:** Analyzed data for Mitron Bank's new credit card launch, focusing on customer preferences and behaviors.
- ▶ **Task:** Identified key customer segments and spending patterns for targeted marketing strategies.
- ▶ **Action:** Created a Power BI dashboard to segment customers by age, income, and spending habits.
- ▶ **Result:** Strategically increased spending by 15% in the 25–34 age group and enhanced engagement by 25% among IT professionals, driving significant revenue growth.

How to explain this in an interview:

The scenarios faced in this project are common across industries. In your conversation with the interviewer, it should be emphasized how customer segmentation can be leveraged by businesses to gain value.



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