

Career Session on Business Problem Solving

Mastering Business Problem Solving and Case Study Interview
Questions

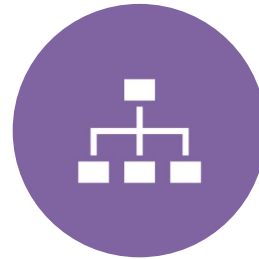
Learning Objectives



APPROACH BUSINESS
PROBLEM SOLVING
EFFECTIVELY.



SOLVE CASE STUDY-
BASED INTERVIEW
QUESTIONS.



PRESENT SOLUTIONS
IN A STRUCTURED
MANNER.



BUILD CONFIDENCE
FOR INTERVIEWS.

Business Problem Solving Brush-Up

What is Business Problem Solving?

Definition: Translating real-world business challenges into data science problems.

Steps: Business understanding, hypotheses, data collection, solution methodology, EDA, model building, and evaluation.

Case Study Example: Customer Retention

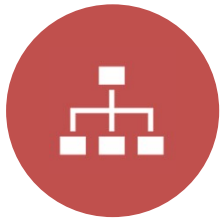
Business Problem: Reduce customer churn.

Data Science Problem: Predict customers likely to churn.

Steps:

1. Define churn (e.g., no purchase in 6 months).
2. Collect customer interaction data.
3. Perform EDA to identify patterns.
4. Build models like logistic regression.
5. Recommend solutions (e.g., loyalty programs).

Best Practices for Case Study-Based Questions



Use a structured framework.



Define the problem clearly.



Outline steps: data, methodology, and insights.



Align answers with business goals.



Highlight challenges and solutions.

STAR framework



Situation



Task



Action



Result

STAR framework

- 1. Situation:** The context or background of the problem.
- 2. Task:** What needs to be done to solve the problem.
- 3. Action:** The steps you take to address the task.
- 4. Result:** The measurable outcomes of your actions.

Walkthrough of a case study

Common Case Study-Based Questions

1. Explain a project where you solved a business problem.

2. How would you approach predicting demand for a new product?

3. What steps would you take to reduce customer churn?

4. Describe how you'd identify key drivers for sales performance.



Strategies to Answer Interview Questions



Understand the problem:
Ask clarifying questions.



Break it down: Identify
inputs, processes, and
outputs.



Explain your thinking: Use
examples and
frameworks.



Focus on impact: Highlight
business outcomes.

Explain a Project Where You Solved a Business Problem

- Example: Reducing customer churn for a subscription service.

Steps:

1. Collected customer data (demographics, activity).
2. Built logistic regression model (85% accuracy).
3. Implemented retention strategies (20% churn reduction).

How Would You Approach Predicting Demand for a New Product?

Steps:

1. Collect data from similar products, surveys, and market trends.
 2. Use regression or time series models.
 3. Evaluate model performance (e.g., RMSE, MAPE).
- Example: Predicted demand for a new snack item.

What Steps Would You Take to Reduce Customer Churn?

Steps:

1. Analyze churn reasons (e.g., feedback, inactivity).
2. Build a predictive model (e.g., decision trees).
3. Design retention campaigns for high-risk customers.

Example: Discounts for predicted churn customers.

Describe How You'd Identify Key Drivers for Sales Performance

Steps:

1. Collect sales data, product categories, pricing, and feedback.
2. Perform EDA to identify trends.
3. Use regression and feature importance.

Example: Found delivery speed and pricing impact sales most.



Key Takeaways



Business problem solving aligns data science efforts with business goals.

Use structured frameworks and clear communication in interviews.

Practice is key—simulate real-world scenarios and seek feedback.



Doubts??