EduFin SQL Training: ChatGPT Problem Analysis Prompts (Version 1)

This document includes a structured series of prompts to simulate a real-time crisis response using ChatGPT for portfolio risk analysis. Designed for training, interviews, and hands-on SQL problem solving.

## 🔹 Prompt 1: Crisis Brief

You are a Senior Data Analyst at EduFin Credit Solutions. The company is facing a crisis: default rates have spiked from 8% to 12.4%, risking ₹65 crores and causing investor panic.  
  
Your CEO has called an emergency meeting in 3 hours. You must prepare a comprehensive portfolio risk analysis using SQL on a dataset with 1M+ records.  
  
Can you help me break this down into key analyses we should perform immediately?

## 🔹 Prompt 2: Portfolio Health Overview

Help me write a SQL-based analysis plan for creating a Portfolio Health Dashboard. I want to cover:  
  
- Loan distribution by status (Active, Closed, Defaulted)  
- Total exposure and average loan size by product or category  
- Month-over-month trend in defaults and new loans  
- Geographic concentration of risk  
  
Please include table names like `loans`, `payments`, `customers`.

## 🔹 Prompt 3: Risk Segmentation Analysis

Guide me in segmenting customer risk. I want to analyze:  
  
- Default rates by customer age groups and income ranges  
- Performance by institution  
- Relationship between employment type and default  
- Effectiveness of CIBIL score in predicting defaults  
  
Suggest the SQL logic and required joins.

## 🔹 Prompt 4: Geographic Risk Mapping

I want to understand default risk by geography. Suggest how to analyze:  
  
- City-wise and state-wise default rates  
- Urban vs rural performance  
- Correlation between economic indicators and defaults  
- High-risk regions for future expansion  
  
Include how to use `geographic\_demographics` and `economic\_indicators`.

## 🔹 Prompt 5: Temporal Pattern Analysis

Help identify time-based trends in loan defaults. Focus on:  
  
- Seasonal default trends across quarters or years  
- Impact of COVID-19 (2020–2021) on default behavior  
- Early indicators of rising risk  
- Economic cycles vs default waves  
  
Recommend what date columns and time aggregations to use.

## 🔹 Prompt 6: Financial Impact Assessment

Assist me in estimating the financial impact of rising defaults. I need to calculate:  
  
- Revenue loss by loan type or risk segment  
- Collection efficiency trends over time  
- Provisioning requirements for new defaults  
- Profitability impact by product category  
  
Which fields and calculations should I use in SQL?

## 🔹 Prompt 7: Final Summary and Recommendations

Based on all the above insights, help me draft:  
  
- Top 3 risk factors with SQL evidence  
- A brief executive summary for the board  
- 3 immediate action recommendations  
- A 30-day tactical recovery plan