**Task 1: SQL Queries  
Batch 9 – SoulVibe.Tech Internship Program**

Welcome, Data Analysis Interns! This document outlines queries to guide your exploration of the provided dataset. These questions are designed to challenge you to think critically, identify complex relationships, and uncover meaningful insights. Remember, the goal is not just to find answers, but to understand the "why" behind the data.  
  
**The Dataset Columns:**

* Age
* Education\_Level
* Occupation
* Number\_of\_Dependents
* Location
* Work\_Experience
* Marital\_Status
* Employment\_Status
* Household\_Size
* Homeownership\_Status
* Type\_of\_Housing
* Gender
* Primary\_Mode\_of\_Transportation
* Income

**Queries**

1. Find the average income for each Education\_Level for those who are employed full-time.
2. Retrieve the top 5 highest earning individuals and their details.
3. Count how many people in each Occupation have more than 2 dependents and own a house.
4. List all individuals living in Urban locations with an income above the average income.
5. Identify how many males and females are in each Employment\_Status.
6. What is the total and average income by Location and Occupation?
7. Find the average Household\_Size grouped by Type\_of\_Housing.
8. Calculate the minimum, maximum, and average Work\_Experience for each Marital\_Status.
9. Write a query to rank individuals by Income within each Education\_Level.
10. Find the top 3 Occupation types with the highest average income.
11. Use a window function to calculate the cumulative income for each Gender.
12. List the people whose income is above the median income for the dataset.

**Task Instructions**

1. **Load the Data:**
   * Import the dataset into a SQL-supported environment (MySQL, PostgreSQL, SQLite, etc.).
   * Ensure all column names are clean and correctly formatted.
2. **Write & Execute Queries:**
   * Complete all **12- SQL queries** provided.
   * Save each query and its output (screenshot format).
3. **Documentation:**
   * Create a .docx or .pdf file containing:
     + Each query (with query number and description).
     + Corresponding results/output (can be screenshots or copied tables).
     + A brief explanation of what each query does (2–3 lines).
4. **Submission Format:**
   * Filename: YourName\_SQL\_income.pdf
   * Submit via the internship Google Form or assigned portal by **[04-06-2025]**.

**🛠️ Tools You Can Use:**

* MySQL Workbench, PostgreSQL, SQLite Browser

**✅ Evaluation Criteria:**

* Accuracy of SQL logic and syntax
* Clear formatting and structured documentation
* Insightful interpretation (if explanation is added)
* Timely submission

**📩 Need Help?**

For doubts, reach out to:  
📧 **soulvibe.tech@gmail.com**

**Task 2: Data Visualization using Power BI**  
**Objective:** Build a compelling Power BI Dashboard using the provided dataset to derive insights from demographic and financial data.

**Dataset:**

Use the same CSV file (data sheet batch 9.csv) provided in Task 1.

**Task Instructions:**

Your goal is to create a clean and insightful dashboard that provides an overview of the dataset’s key metrics. You are expected to complete the following:

**Visualizations to Create:**

1. **Demographic Overview:**
   * Pie chart: Distribution of Gender
   * Bar chart: Count of individuals by Education\_Level
   * Tree Map: Occupation distribution
2. **Income Analysis:**
   * Card: Average Income
   * Column Chart: Average Income by Education\_Level
   * Bar Chart: Income by Location
3. **Experience & Dependents:**
   * Scatter Plot: Work\_Experience vs Income
   * Donut Chart: Number of Dependents
   * Table: Top 10 highest earners with key details (Name, Occupation, Income, Education\_Level)
4. **Filters / Slicers:**
   * Gender
   * Employment Status
   * Location

**Interactivity:**

* Enable slicers to allow filtering across visuals.
* Create a page-level or report-level filter for Marital\_Status.

**Deliverables:**

* Submit the .pbix file.
* Include a screenshot of your final dashboard.
* Optional: Add a page with insights in text (e.g., “Most high earners are from Urban areas with higher education”).

**Guidance Tips:**

* Use **data types** correctly (e.g., make sure income is a number).
* Clean column names and apply meaningful titles to visuals.
* Choose consistent and professional color themes.
* Don’t clutter the dashboard – keep it readable and user-friendly.

**Deadline:**

Submit your Power BI dashboard by **21-06-2025**.