

## Task 1 :Database Setup and Schema Design.

- **Objective:** Learn to create databases, tables, and define relationships.
- **Tools:**MySQL Workbench / pgAdmin / SQLiteStudio.
- **Deliverables:** SQL script to create schema and ER diagram

### Hints/Mini Guide:

1. Choose a domain (e.g., Library, E-commerce)
2. Identify entities and relationships
3. Create tables using CREATE TABLE
4. Define primary and foreign keys

**Outcome:** A well-structured schema.

### Interview Questions:

1. What is normalization?
2. Explain primary vs foreign key.
3. What are constraints?
4. What is a surrogate key?
5. How do you avoid data redundancy?
6. What is ER diagram?
7. What are the types of relationships in DBMS?
8. Explain the purpose of AUTO\_INCREMENT.
9. What is the default storage engine in MySQL?
10. What is a composite key?

### Key Concepts: DDL, Normalization, ER Diagrams

#### Submit Here:

After completing the task, paste your GitHub repo link and submit it using the link below:

-  [[Submission Link](#)].

## 📌 Task Submission Guidelines

- 🕒 **Time Window:**

You can complete the task anytime between 10:00 AM to 10:00 PM on the given day. Submission link closes at 10 :00 PM

- 🔍 **Self-Research Allowed:**

You are free to explore, Google, or refer to tutorials to understand concepts and complete the task effectively.

- 🔧 **Debug Yourself:**

Try to resolve all errors by yourself. This helps you learn problem-solving and ensures you don't face the same issues in future tasks.

- 💰 **No Paid Tools:**

If the task involves any paid software/tools, do not purchase anything. Just learn the process or find free alternatives.

- 📁 **GitHub Submission:**

Create a new GitHub repository for each task.

Add everything you used for the task — code, datasets, screenshots (if any), and a **short README.md** explaining what you did.

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Best  
of  
Luck

