1. Database Connectivity:

   - Establish a connection to a MySQL database using python libraries

* **Done with establishing connections to mysql database using python libraries.**
* **Need to review it with Priya**

2. Data Retrieval:

   - Query data from MySQL tables using SQL statements.

   - Fetch and process data from database tables using Python.

   - Retrieve specific records based on conditions.

3. Data Insertion and Updating:

   - Insert new data into MySQL tables using SQL INSERT statements.

   - Update existing data in MySQL tables using SQL UPDATE statements.

4. Data Deletion:

   - Delete records from MySQL tables using SQL DELETE statements.

5. Data Analysis:

   - Analyze and manipulate data from MySQL tables using Python libraries such as Pandas and NumPy. - *(like show first 10, last, if any column has null values)*

   - Perform statistical analysis, data aggregation, and visualization. - *(not in high priority can try at the end too.)*

6. Automation:

   - Automate database-related tasks, such as data backups and routine maintenance.

7. Data Validation and Cleaning:

*(For this case scenario pick any one of (smaller one) datasets from kaggel (*[Find Open Datasets and Machine Learning Projects | Kaggle](https://www.kaggle.com/datasets)*) and create a table in Database then do the below process)*

    - Validate and clean incoming data before inserting it into the MySQL database.

    - Handle data consistency and integrity using Python scripts.

8. API Integration:

    - Interact with external APIs *(we will have free json API request resources)* [jsonplaceholder.typicode.com/users](https://jsonplaceholder.typicode.com/users) to fetch data and store it in MySQL databases.

9. Data Security:

    - Implement security measures to protect sensitive data in the MySQL database.

    - Authenticate and authorize users for accessing the database.