Name : Shubh Tyagi
Task 4 : Database backup and recovery

Objective : To demonstrate how to back-up a database and restore it in case of failure using SQL commands.

Tools used :
•MySql
•Command Prompt / Terminal

1. How to backup a MySql Database

We use the mysqldump command to take a backup .

Syntax:

mysqldump -u [username] -p [database_name] > [backup_file_name].sql

Example:

mysqldump -u root -p mydatabase > mydatabase_backup.sql

** This command will create a file named mydatabase_backup.sql that stores all the database structure and data. **

2. How to Restore a MySQL Database

We use the mysql command to restore the database.

Syntax:

mysql -u [username] -p [new_database_name] < [backup_file_name].sql

Example:

mysql -u root -p mydatabase_restored < mydatabase_backup.sql

** This command restores the backup into a new or existing database. **

3. Step-by-step Process:

1. Open terminal or command prompt

2. Use the mysqldump command to take backup

3. If database is lost or corrupted, create a new database

4. Use the mysql command to restore the backup file

5. Verify that the data is restored successfully

- **Backup Script Example:**

mysqldump -u root -p student_db > student_db_backup.sql

- **Recovery Script Example:**

mysql -u root -p student_db_restored < student_db_backup.sql

- **Important Notes :**

•Always store backup files securely.

•You can schedule backups using automation tools like CRON (Linux) or Task Scheduler (Windows).