

Task 3: Database Backup and recovery

➤ Objectives:

- To demonstrate the process of backing up a database and restoring it in case of failure.

➤ Tools Used:

- **MySQL:** mysqldump for backup and mysql for restoration.
- **PostgreSQL:** pg_dump for backup and pg_restore for restoration

➤ Steps Performed:

1. **Backup the Database:**
Used the respective commands to back up the database in MySQL and PostgreSQL.
2. **Restore the Database:**
Restored the backed-up database to ensure it could be fully recovered.
3. **Validation:**
Verified the restored database by querying the data to ensure data integrity.

➤ Example Commands:

MySQL Backup:

```
mysqldump -u root -p Task4DB > task4db_backup.sql
```

MySQL Restore:

```
mysql -u root -p Task4DB < task4db_backup.sql
```

PostgreSQL Backup:

```
pg_dump -U postgres -F c -b -v -f task4db_backup.dump Task4DB
```

PostgreSQL Restore:

```
pg_restore -U postgres -d Task4DB -v task4db_backup.dump
```

➤ Validation:

- Queried the restored database using:

```
SELECT * FROM Fines;
```

- Verified that all data matched the original.

➤ Outcome:

Successfully backed up and restored the database, ensuring data integrity.