Homework 1.2

Objective: Installing MySQL & Creating Databases

- **Tasks:**
  - Install MySQL using the Developer Default setup and configure the server with a password.
  - Open MySQL Workbench and run the provided SQL script to create a sample database and tables.
  - Verify your database by querying tables in MySQL Workbench.
- **Submit:**
  - Installation steps summary
  - SQL commands used
  - Screenshot of your created database & table data
  - Short note (3–4 lines) on the benefits of MySQL Workbench
- **Resource Link:** Installing MySQL and Creating Databases

Installing MongoDB Database

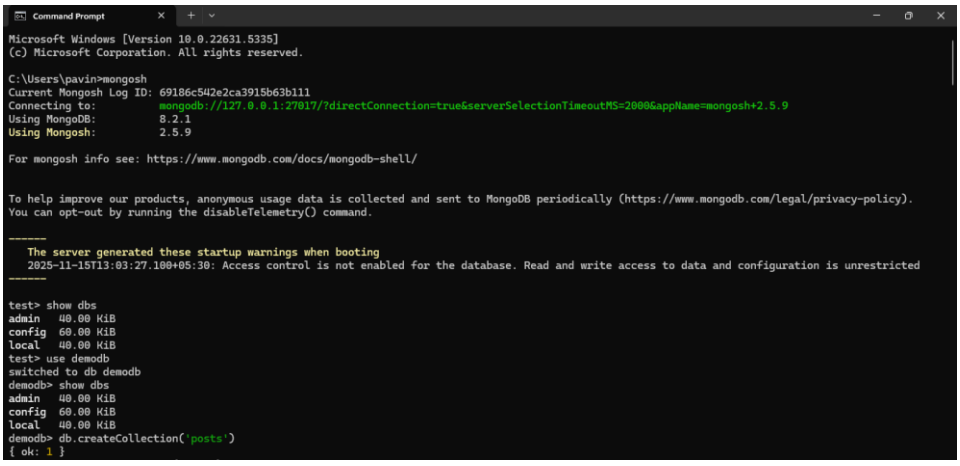
Installation Steps

1. Download the MongoDB from their official website, Home page → Products → Community Edition (Select latest version, OS and the package).
2. Open the downloaded .msi file and click next → accept license →then click next →check MongoDB Compass (GUI) → complete the installation.
3. Add MongoDb path to System Path.
4. Download MongoDB shell for Command Line Interface.
5. Open the downloaded .msi file and install.
6. Installation can be verified with the command mongosh –version
7. Use command ‘mongosh’ to use the shell

Commands used to create Database and Query Data

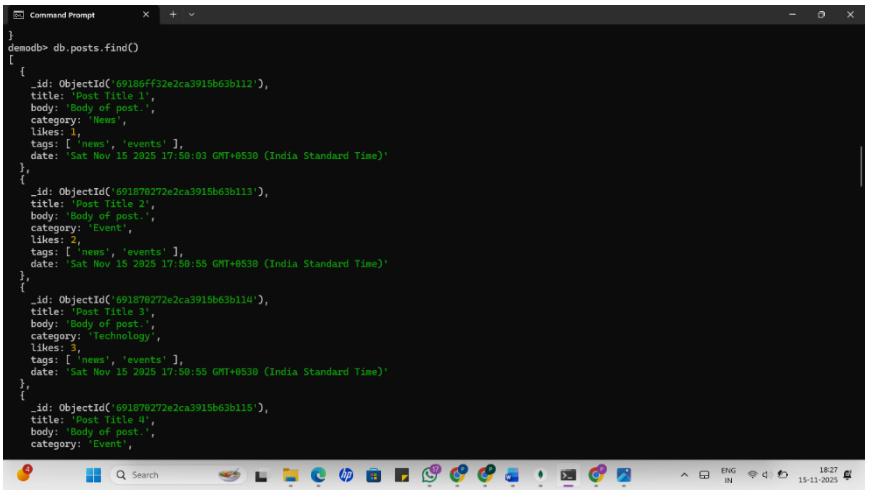
- use demodb --- creates new DB or use existing DB
- db.createCollection('posts’) --- creates Collection names posts
- db.posts.insertOne(…) ---- inserts Data
- db.posts.find() ---- lists the available Data
- db.posts.updateOne(…) ---- Update Data
- db.posts.delete(…) ---- Delete Data
- use admin/test ---- to switch to different db
- exit/quit() ---- exit shell

Screenshot of the Created MongoDB Database & Collection Data

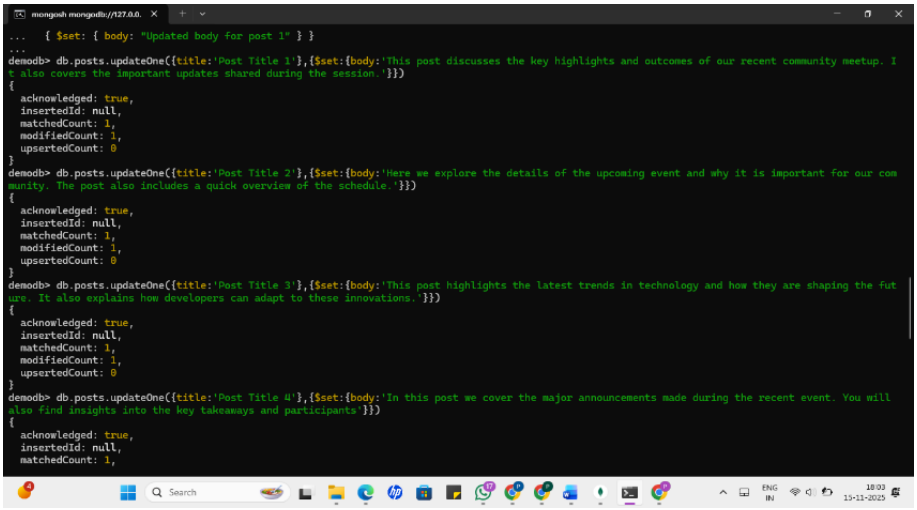


Collection Creation

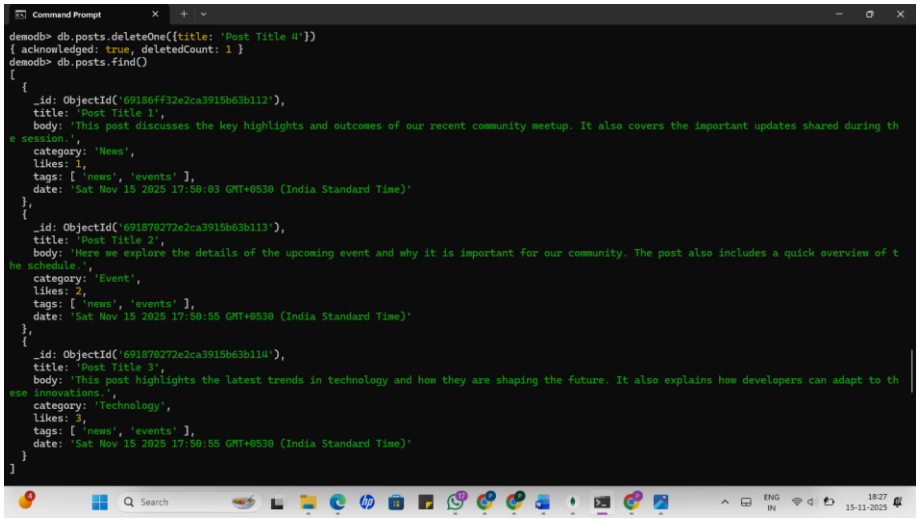
Insertion of Data



Collection Data



Updating Existing Data



Deleting Data

Benefits of MongoDB

MongoDB is a powerful NoSQL database that stores data in flexible, JSON-like documents, making it ideal for modern applications. It supports high scalability, fast read–write operations, and seamless handling of unstructured or evolving data. MongoDB's dynamic schema and horizontal scaling make it suitable for real-time, cloud-based, and large-scale systems. Its shell provides full control for queries, updates, and database management using simple, developer-friendly commands.