Team name: “QWERTY” LAB6

Members:

1. Danyil Tymchuk
2. Artem Surzhenko

Physical ERD and Class Implementation Documentation

Physical Entity Relationship Diagram

- **Users Table**: Contains all user authentication and profile information
- **Posts Table**: Stores content created by users
- **Comments Table**: Tracks discussions on posts

The physical model includes implementation-specific details such as:

- Primary key constraints with AUTO_INCREMENT
- Foreign key relationships with referential integrity
- Appropriate data types for each column (VARCHAR, TEXT, INT, TIMESTAMP)
- Field constraints (NOT NULL, UNIQUE)
- JSON fields for efficient storage of relationships (followers, following, likes)

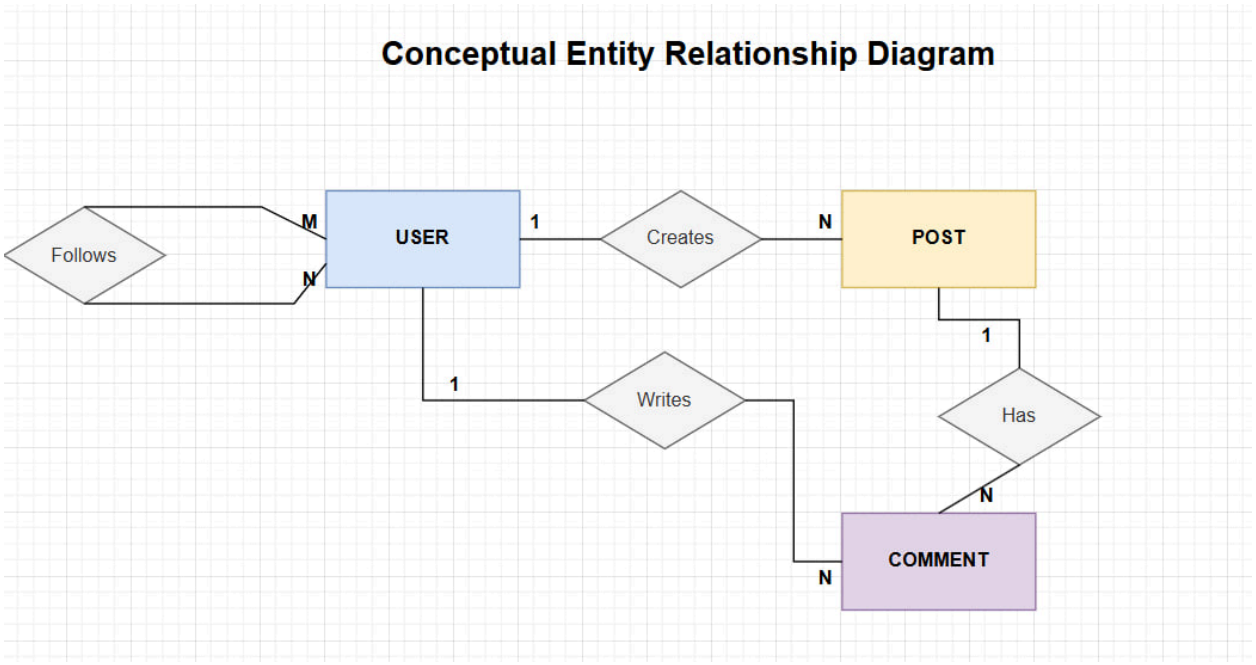
Conceptual Class Diagram

The Conceptual Class Diagram represents our application's object structure. I've designed it with the following classes:

1. **User Class**
    - Properties: userId, username, password, email, name, bio, profilePic, followers, following
    - Methods: createPost(), followUser(), unfollowUser(), getProfile()
2. **Post Class**
    - Properties: postId, userId, title, content, media, likes, createdAt
    - Methods: addComment(), like(), unlike(), getComments()
3. **Comment Class**
    - Properties: commentId, postId, userId, content, createdAt
    - Methods: edit(), delete()
4. **DatabaseConnection Class**
    - Properties: connection, host, username, password, database
    - Methods: connect(), disconnect(), query()

The class diagram also shows relationships between classes, including:

- Composition relationships (User creates Posts)
- Aggregation relationships (Post has Comments)
- Association relationships (User follows User)



GitHub Repository: https://github.com/DanyilT/WebDev-Project

This Version on github: https://github.com/DanyilT/WebDev-Project/tree/6d36aa157a3d056f625c8d1a3433e688b8c8c094

This repository contains the latest version (5.0) of our project with the implemented database functionality.