**Social Media Platform Database**

**DESCRIPTION:**

The project focuses on creating a database for a social media platform. The platform will allow users to create profiles, post content, follow other users, like posts, comment on them, and manage their privacy settings. The database will manage the relationships between users, posts, comments, likes, and followers. The aim is to design a database that supports the main features of a social media platform, ensuring scalability, performance, and data integrity.

**Entity-Relationship Diagram (ERD:**

|  |  |
| --- | --- |
| USER |  |
| user\_id | Integer (PK) |
| username | Varchar |
| email | Varchar |

|  |
| --- |
| POST   post\_id (INT): Unique identifier for each post.   user\_id (INT): ID of the user who created the post (foreign key to Users).   content (TEXT): Content of the post.   created\_at (TIMESTAMP): |

+------------+ +----------+ +-----------+

| Users | | Posts | | Comments |

+------------+ +----------+ +-----------+

| user\_id (PK)|<---1 \*-| post\_id (PK)|<---1 \*-| comment\_id (PK) |

| username | | user\_id (FK)| | post\_id (FK) |

| email | | content | | user\_id (FK) |

+------------+ | created\_at | | content |

+----------+ | created\_at |

+-----------+

1 \* 1 \*

|------------| |-----------|

| Friends | | Likes |

|------------| |------------|

| user\_id\_1 | | user\_id (FK)|

| user\_id\_2 | | post\_id (FK)|

+------------+ +------------+

| created\_at |

+------------+

**Diagram Representation of LDM:**

**+------------+ 1 +-----------+ 1 +-----------+**

**| Users |<--------| Posts |<------| Comments |**

**+------------+ +-----------+ +-----------+**

**| user\_id (PK)| | post\_id (PK)| | comment\_id (PK)|**

**| username | | user\_id (FK)| | user\_id (FK) |**

**| email | | content | | post\_id (FK) |**

**| first\_name | | created\_at | | content |**

**| last\_name | | updated\_at | | created\_at |**

**| profile\_pic | +-----------+ +---------------+**

**+------------+**

**|**

**| 1 1**

**| M M**

**v v**

**+-------------+ M:N +-------------+ M:N +-------------+**

**| Friendship |<--------->| Likes |<--------->| Messages |**

**+-------------+ +-------------+ +-------------+**

**| user\_id\_1 (FK) | | user\_id (FK)| | sender\_id (FK)|**

**| user\_id\_2 (FK) | | post\_id (FK)| | receiver\_id (FK)|**

**| status | | created\_at | | content |**

**| created\_at | +-------------+ | created\_at |**

**| updated\_at | +-----------------+**

**+-------------+**