# \*\*Social Network Platform - PHP & MySQL Project\*\*

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## \*\*Project Title:\*\*

\*\*Social Network Platform\*\*

\*A web-based social networking site where users can connect, share posts, and interact.\*

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## \*\*Project Overview\*\*

This project involves building a \*\*fully functional social network\*\* using \*\*PHP and MySQL\*\*, featuring:

✔ \*\*User profiles\*\* (registration, login, profiles)

✔ \*\*Friends system\*\* (send/accept requests)

✔ \*\*Post creation\*\* (text, images, likes, comments)

✔ \*\*Real-time notifications\*\*

✔ \*\*Messaging system\*\* (private chats)

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## \*\*Key Features\*\*

### \*\*1️⃣ User Management\*\*

- \*\*Registration & Login\*\* (with email verification)

- \*\*Profile customization\*\* (bio, profile picture, cover photo)

- \*\*Password recovery\*\*

### \*\*2️⃣ Friends & Connections\*\*

- \*\*Friend requests\*\* (send/accept/decline)

- \*\*Friends list\*\*

- \*\*Follow/unfollow system\*\* (optional)

### \*\*3️⃣ Posts & Interactions\*\*

- \*\*Create posts\*\* (text, images, links)

- \*\*Like, comment, and share posts\*\*

- \*\*News feed\*\* (shows posts from friends)

### \*\*4️⃣ Notifications\*\*

- \*\*Real-time alerts\*\* for friend requests, likes, comments

- \*\*Notification dropdown\*\*

### \*\*5️⃣ Private Messaging\*\*

- \*\*One-on-one chats\*\*

- \*\*Message history\*\*

- \*\*Online status indicator\*\*

### \*\*6️⃣ Admin Panel\*\*

- \*\*Manage users\*\* (ban, delete)

- \*\*View reports\*\* (flagged posts)

- \*\*Site analytics\*\*

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## \*\*Technology Stack\*\*

| Category | Technology |

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

| \*\*Frontend\*\* | HTML, CSS, Bootstrap, JavaScript (jQuery/AJAX) |

| \*\*Backend\*\* | PHP (OOP or MVC framework like Laravel) |

| \*\*Database\*\* | MySQL (for user data, posts, messages) |

| \*\*Additional\*\*| Real-time updates (AJAX polling or WebSockets) |

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## \*\*Database Structure (Main Tables)\*\*

| Table | Description |

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

| \*\*users\*\* | Stores user details (name, email, password) |

| \*\*posts\*\* | User-generated posts (text, image, timestamp) |

| \*\*friends\*\* | Friend relationships (status: pending/accepted) |

| \*\*comments\*\* | Comments on posts |

| \*\*likes\*\* | Likes on posts/comments |

| \*\*messages\*\* | Private chat messages |

| \*\*notifications\*\* | Alerts for user activity |

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## \*\*Development Phases\*\*

### \*\*Phase 1: Setup & User System\*\*

✅ Database design

✅ User registration/login

✅ Profile pages

### \*\*Phase 2: Posts & Interactions\*\*

✅ Create/delete posts

✅ Like & comment system

✅ News feed

### \*\*Phase 3: Friends & Messaging\*\*

✅ Friend requests

✅ Private chat system

### \*\*Phase 4: Notifications & Admin Panel\*\*

✅ Real-time alerts

✅ Admin controls

### \*\*Phase 5: Final Touches\*\*

🔲 Responsive design (mobile-friendly)

🔲 Security enhancements (XSS/CSRF protection)

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## \*\*Screenshots (Conceptual Wireframes)\*\*

\*(Add placeholder images in Word for:)\*

1. \*\*Login/Registration Page\*\*

2. \*\*User Profile Page\*\*

3. \*\*News Feed\*\*

4. \*\*Messaging Interface\*\*

5. \*\*Admin Dashboard\*\*

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## \*\*How to Convert to PDF\*\*

1. \*\*Copy this content\*\* into Microsoft Word.

2. \*\*Adjust fonts, colors, and layout\*\* (use headings, bullet points).

3. \*\*Insert relevant images/screenshots\*\*.

4. \*\*Export as PDF\*\* (File > Save As > PDF).

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## \*\*Next Steps\*\*

Need help with:

🔹 \*\*Sample PHP/MySQL code snippets?\*\*

🔹 \*\*Recommended libraries for real-time features?\*\*

🔹 \*\*Detailed database schema?\*\*

Let me know how I can assist! 🚀

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\*(This content is ready to paste into Word. Customize formatting, add logos, and adjust as needed.)\*

**Social Network Platform - Database Design**

*(PHP & MySQL Implementation)*

**📌 Core Tables Overview**

**Database Name:** social\_network\_db  
**Key Tables:** Users, Posts, Friends, Messages, Notifications

**🗂️ Detailed Table Structures**

**1. users** *(User Accounts)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| user\_id | INT (PK) | Auto-increment ID |
| username | VARCHAR(50) | Unique username |
| email | VARCHAR(100) | Unique email |
| password | VARCHAR(255) | Hashed password |
| profile\_pic | VARCHAR(255) | Path to image |
| bio | TEXT | User biography |
| created\_at | TIMESTAMP | Account creation time |

**2. posts** *(User-Generated Content)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| post\_id | INT (PK) | Auto-increment ID |
| user\_id | INT (FK) | Author (links to users) |
| content | TEXT | Post text |
| image | VARCHAR(255) | Optional image path |
| created\_at | TIMESTAMP | Post time |

**3. friends** *(Relationships)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| friendship\_id | INT (PK) | Auto-increment ID |
| user1\_id | INT (FK) | Friend requester (links to users) |
| user2\_id | INT (FK) | Friend recipient |
| status | ENUM | 'pending','accepted','rejected' |
| created\_at | TIMESTAMP | Request time |

**4. comments** *(Post Interactions)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| comment\_id | INT (PK) | Auto-increment ID |
| post\_id | INT (FK) | Links to posts |
| user\_id | INT (FK) | Comment author |
| text | TEXT | Comment content |
| created\_at | TIMESTAMP | Comment time |

**5. likes** *(Post Engagement)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| like\_id | INT (PK) | Auto-increment ID |
| post\_id | INT (FK) | Liked post |
| user\_id | INT (FK) | Who liked it |
| created\_at | TIMESTAMP | Like time |

**6. messages** *(Private Chats)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| message\_id | INT (PK) | Auto-increment ID |
| sender\_id | INT (FK) | Links to users |
| receiver\_id | INT (FK) | Recipient |
| content | TEXT | Message text |
| is\_read | BOOLEAN | Read status |
| sent\_at | TIMESTAMP | Send time |

**7. notifications** *(Alerts)*

| **Column** | **Data Type** | **Description** |
| --- | --- | --- |
| notif\_id | INT (PK) | Auto-increment ID |
| user\_id | INT (FK) | Recipient |
| type | ENUM | 'friend\_request','like','comment' |
| source\_id | INT | ID of sender/post |
| is\_seen | BOOLEAN | Viewed status |
| created\_at | TIMESTAMP | Notification time |

**🔗 Relationships Diagram**

*(Use SmartArt in Word to visualize)*

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users

├── 1:M ── posts

│ ├── 1:M ── comments

│ └── 1:M ── likes

│

├── 1:M ── friends (as user1\_id)

│ └── M:1 ── users (as user2\_id)

│

├── 1:M ── messages (as sender\_id)

│ └── M:1 ── users (as receiver\_id)

│

└── 1:M ── notifications

**📝 Sample SQL Queries**

**Create Database**

sql

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CREATE DATABASE social\_network\_db;

USE social\_network\_db;

**Create Users Table**

sql

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CREATE TABLE users (

user\_id INT AUTO\_INCREMENT PRIMARY KEY,

username VARCHAR(50) UNIQUE NOT NULL,

email VARCHAR(100) UNIQUE NOT NULL,

password VARCHAR(255) NOT NULL,

profile\_pic VARCHAR(255) DEFAULT 'default.jpg',

bio TEXT,

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP

);

**Get a User's Friends List**

sql

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SELECT u.username, u.profile\_pic

FROM friends f

JOIN users u ON f.user2\_id = u.user\_id

WHERE f.user1\_id = [CURRENT\_USER\_ID] AND f.status = 'accepted'

UNION

SELECT u.username, u.profile\_pic

FROM friends f

JOIN users u ON f.user1\_id = u.user\_id

WHERE f.user2\_id = [CURRENT\_USER\_ID] AND f.status = 'accepted';

**🎨 Recommended Enhancements**

1. **Hashtags:** Add tags and post\_tags tables
2. **Stories:** Create stories table with 24-hour expiry
3. **Groups:** Add groups and group\_members tables