**Developing a Social Media Platform**

**1. Requirement Gathering:**

The project begins by gathering requirements from stakeholders, including features like user profiles, news feed, messaging, image and video sharing, notifications, and privacy settings. Additionally, considerations for scalability, security, and user experience are discussed.

**2. Design:**

Based on the requirements, the team designs the architecture of the web application. This includes deciding on the frontend framework, backend framework, and database. Wireframes are created to visualize the user interface, while ER diagrams help in designing the database schema.

**3. Implementation:**

Developers start coding the frontend and backend components of the application. They build responsive user interfaces using HTML, CSS, and JavaScript, and develop server-side logic for handling user requests and interactions. APIs are created for data communication between the frontend and backend, and databases are set up to store user data and content.

**4. Testing:**

Quality assurance engineers conduct various tests to ensure the functionality, performance, and security of the web application. This includes unit tests to validate individual components, integration tests to test interactions between components, and end-to-end tests to simulate user scenarios

**5. Deployment:**

Once testing is complete, the web application is deployed to a production server. Continuous integration/continuous deployment pipelines are set up to automate the build, test, and deployment processes, enabling faster and more reliable releases.

**6. Maintenance:**

After deployment, the web application enters the maintenance phase. This involves monitoring the application's performance and user feedback, and making necessary updates and improvements. Regular updates are pushed to fix bugs, enhance security, and introduce new features based on user demand and market trends. Additionally, server maintenance tasks like scaling resources and applying security patches are performed to ensure the reliability and security of the application.