Khmelnytskyi National University

Department of Computer Engineering and Information Systems

**Report**

Laboratory work №6

Discipline: “Software Requirements and Quality Analysis”

Topic: “Documentation of requirements”

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***Purpose of work:*** To form practical skills with a description of the external behavior of the system taking into account requirements and limitations in the "Software Requirements Specification" document.

**6.1** **Tasks for laboratory work**

1. Develop an SRS document based on the RUP methodology.

2. Complete the work.

3. Carry out job protection.

**6.2 Completion of the task**

**Introduction**: Summarize the purpose and scope of Social Network Y, emphasizing its main features (user accounts, posts, admin moderation, etc.) and the overall goal to provide a platform for connecting and sharing content while ensuring safe interactions through admin control.

**Functional Requirements**:

* **User Registration/Login**: Include details on account creation, password management, email verification, and JWT-based authentication.
* **User Profile Management**: Specify profile customization options, such as updating avatars, usernames, and emails.
* **Post Management**: Describe actions users can take (creating, editing, deleting, viewing, liking posts) and outline admin abilities to moderate content.
* **Admin Role Management**: Detail the hierarchy (three levels) and permissions associated with each level (viewing reports, banning users, assigning roles, etc.).
* **Search Functionality**: Define the searchable entities (users, posts, tags), with filters for more refined results.

**Use Cases**:

* **User Registration and Login**: Diagram the user’s journey from signing up to logging in and handling JWT tokens.
* **Posting Content**: Cover the flow for creating, viewing, editing, and deleting posts, including interaction points for likes, comments, and reporting.
* **Admin Moderation**: Outline scenarios where an admin reviews reports, modifies user privileges, or bans a user, showing decision points based on admin levels.
* **User Profile Management**: Illustrate how users update profile information or delete accounts, with admin options to assist or override changes as needed.

**Non-Functional Requirements**:

* **Performance**: Mention expected load times and response times, especially for actions like fetching posts or performing admin functions.
* **Security**: Highlight JWT token usage, role-based access control, and any anti-abuse mechanisms like rate-limiting.
* **Reliability and Availability**: Describe any fault tolerance or redundancy measures, particularly for high-availability.

**Conclusion:**

In this laboratory work, practical skills with a description of the external behavior of the system taking into account requirements and limitations in the "Software Requirements Specification" document.