CSE 318
LAB 1
ID- 22234103413

Stakeholder Role-Play & Requirement Gathering:

Key Stakeholders:

- **Students**
- **University Administration**
- **Faculty**
- **Librarians**
- **Library Administrator**
- **Support Staff**
- **Research Departments**
- **Publishers**
- **Alumni**
- **External Vendors/Third-party Services**
- **IT Department**
- **External Auditors**

Questions to Ask the Client for Gathering Requirements:

General System Requirements:

1. What are the primary objectives you aim to achieve with the Online Library Management System?
2. What specific functionalities would you like the system to support (e.g., book search, borrowing/returning, overdue tracking)?
3. Are there any specific security requirements for user authentication, and what roles and permissions should be defined for different user types?
4. Do you require integration with any existing systems (e.g., student registration, payment systems, other institutional platforms)?
5. What is the expected number of concurrent users the system should be able to handle?
6. Are there any scalability requirements for the system as the number of users or the library's resources grows?

Functional Requirements:

1. How should the book search feature operate? What filters or sorting options should be included (e.g., author, genre, publication date)?

2. What is the process for borrowing and returning books? Should there be any specific rules (e.g., maximum borrowing period, renewal limits, fine calculation)?
3. What actions should be taken when a book is overdue? Should the system apply fines, send notifications, or take other actions automatically?
4. Do you require a reservation feature for books that are currently unavailable or checked out?
5. Would you like users to be able to track their borrowing history or view status updates for books they have borrowed?
6. Are there any specific features needed for managing digital content (e.g., eBooks, online journal access)?

Non-Functional Requirements:

1. What are the performance expectations for the system, particularly in terms of response times for book searches or transactions?
2. What are your availability and uptime requirements for the system? Should the system be accessible 24/7, or are there specific maintenance windows?
3. What level of data security and encryption is necessary to protect user data and transaction history?
4. Are there any specific compliance standards or regulatory requirements (e.g., GDPR, FERPA) that the system must adhere to?
5. Do you envision the system being accessible via mobile devices, or should it be primarily designed for desktop access?

Reporting and Analytics Requirements:

1. What type of reports should the system be able to generate (e.g., overdue books, borrowing trends, book popularity)?
2. How frequently should reports be generated, and who will need access to these reports?
3. Would you like the system to offer any predictive analytics or usage patterns (e.g., forecasting popular books based on historical borrowing data)?

Notification and Communication Preferences:

1. What types of notifications would you like the system to send (e.g., overdue reminders, reservation availability, new book arrivals)?
2. What channels should be used for notifications (e.g., email, SMS, in-system messaging)?
3. Should the system support personalized notifications or alerts based on user preferences or behavior?

User Experience and Interface Design:

1. What are your expectations regarding the user interface (UI) design? Are there any

specific accessibility or usability standards that should be followed?
2. Are there any branding guidelines or design elements (e.g., university logos, color schemes) that should be incorporated into the system?
3. Do you require multi-language support for the system, or is it intended for a specific linguistic demographic?

Training and Support:

1. What level of user training will be required for administrators, librarians, and users?
2. Should the system include an in-built help section or FAQs, or will external documentation be provided?
3. What kind of ongoing technical support or system maintenance is anticipated post-implementation?

Timeline and Budget:

1. What is the expected timeline for the development and deployment of the Online Library Management System?
2. Are there specific milestones or phases of the project that must be completed by certain dates?
3. What budget constraints or considerations should be kept in mind during the system's development and deployment?

2. Feature Identification:

1. **Functional Features:**
    a. User authentication and role-based access control
    b. Book search and categorization
    c. Borrowing, returning, and renewing books
    d. Overdue tracking and fine calculation
    e. Reservation and notification system
    f. Reporting and analytics tools
2. **Non-Functional Features:**
    a. System scalability
    b. Data security and regulatory compliance (e.g., GDPR)
    c. High system uptime and availability
    d. User interface accessibility and responsiveness
    e. Integration with external systems (if applicable)

3. Identify System Actors:

System Actors:

- **Students**: Primary users who borrow, return books, search for resources, and manage

their accounts.

- **Faculty**: Users who borrow books, access academic resources, and may have extended borrowing privileges.
- **Librarians**: Responsible for managing inventory, assisting users, and processing book transactions.
- **Library Administrators**: Oversee system management, user roles, and ensure smooth operation of library services.
- **Support Staff**: Provide assistance to users with any technical or operational issues related to the system.
- **Research Departments**: Access resources for academic research and may require specialized tools or content.
- **Publishers**: Supply digital and physical content, ensuring licensing and distribution rights are followed.
- **Alumni**: Former students who may have limited access to library resources post-graduation.
- **External Vendors/Third-party Services**: Provide integrated services like payment processing or eBook content.
- **IT Department**: Responsible for system infrastructure, security, and maintaining the backend technical environment.
- **External Auditors**: Review the system's performance, compliance, and ensure data integrity and security standards are met.