SLIIT
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B.Sc. (Hons) in Information Technology
IT2080 IT Project

System Design Activity

Objective: Provide high-level and low-level design diagrams.

1. **Identify the major components**: Identify the major components of the system and how they interact with each other.
2. **Define the data model**: Define the data model for the system, which includes the types of data that the system will store, how the data will be organized, and how the data will be accessed and manipulated.
3. **Identify related non-functional requirements in detail**
    - Scalability of the system-how the system will handle increasing levels of data and users over time.
    - Security: Consider the security of the system, which involves identifying potential security risks and designing the system to protect against them. This includes defining access controls, authentication mechanisms, and encryption requirements.
    - Performance: Consider the performance of the system, which involves identifying potential bottlenecks and designing the system to perform efficiently. This includes defining the system's response time requirements, throughput requirements, and load balancing mechanisms.
4. **Identify third-party components**: Identify any third-party components that the system will use, such as APIs, libraries, and frameworks. This includes defining the integration points for these components and ensuring that they meet the system's requirements.
5. **Design GUIs** and the navigation for the client-side apps.
6. Design class diagrams for both client-side and server-side apps.
7. Design Sequence diagrams and Activity diagrams to show the workflows of the system.
8. Design any other suitable UML diagrams to provide a good understanding of the system.
9. Design the database using a suitable method.

10. Upload to courseweb in the format specified in the previous activity