



Software Engineering Laboratory

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Experiment-1

**Project Definition and objective of the specified module and
Perform Requirement Engineering Process.**



Aim: Definition and objective of the specified module and Perform Requirement Engineering Process.

Objectives: The main goal of this practical is to finalize the project with specified module and also perform the requirement Engineering Process.



Instructions

- 1. Students have to select a management project like Hotel Management, Timetable management etc on which they can do the requirement gathering, analysis, diagrams, testing.**
- 2. Students can work in a team in which not more than 3 students in a group.**
- 3. Students have to consider this project as a live project and throughout the practical works they have to work in a team.**
- 4. Same project is not acceptable for more than 1 team in a batch.**



Parameters

1. Context
2. Information
3. Objectives
4. Functions
5. Performance
6. Problem Decomposition



Example- Cyber Cafe monitoring system

1. Context

Cyber Cafe monitoring system is a professional monitoring and management system for cyber cafe. It consists of the centralized system which will remotely manage all the computers in cyber cafe.

2. Information

The present system was an elementary one. The employee would keep a notebook to manage all the terminals. The problems prevailing in the present system are as follows:

- Inconsistency
- Login and log off time monitoring
- Duration of on and off time
- Internet traffic
- Security is not maintained



Example- Cyber Cafe monitoring system

3. Objectives

The main objectives of the system are to put the newly available technology in securing the employees of the lab for economic effective and increase performance of the system. An employee can monitor and manage the entire site from all relevant aspects, logging on customers remotely, executing wide range of actions on one or more or all of the terminals at once remotely



Example- Cyber Cafe monitoring system

4. Functions

It includes monitoring and management system. It includes following features:

- States of clients (Computer) i.e. log in time, current users, elapsed time, etc.
- Any client's session can be terminated as and required.
- Enable/Disable of client computer can be done from the server end (using IP address).
- Chat with any computer (client) can be done.
- Security – password, privileges.
- Monitoring of individual client.
- Context of individual terminal.



Example- Cyber Cafe monitoring system

5. Performance

- The newly system developed would increase the efficiency of the lab.
- The concept of the client and server makes safety advancements, it also allows for an efficient centralized management of the entire system.
- Control and checking on all the activities of each terminal.
- Monitoring the system while it is on/off.
- Better means of solving faults and problems.
- Controlled and secured access is achieved.

Example- Cyber Cafe monitoring system

6. Problem Decomposition

- We will use login for secured access of each user.
- Connection (to access net) to the server is made only after the successful login.
- Database is maintained to store the login time of individual user.
- Only server has the rights to terminate any terminal (client) to control the access.
- Client is not connected to server until user logs in which reduces the network traffic.

Requirements Engineering Tasks

There are 7 different task in the Requirements Engineering.

1. Inception
2. Elicitation
3. Elaboration
4. Negotiation
5. Specification
6. Validation
7. Requirements Management

Requirements Engineering Tasks

- **Inception**—Establish a basic understanding of the problem and the nature of the solution.
- **Elicitation**—Draw out the requirements from stakeholders.
- **Elaboration**—Create an analysis model that represents information, functional, and behavioral aspects of the requirements.
- **Negotiation**—Agree on a deliverable system that is realistic for developers and customers.
- **Specification**—Describe the requirements formally or informally.
- **Validation**—Review the requirement specification for errors, ambiguities, omissions, and conflicts.
- **Requirements management**—Manage changing requirements.



Project Examples

- Hospital Management
- Waste Management
- Hotel Management
- Sports Management
- Timetable Management
- Attendance Management
- Event Management
- etc

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