

Lab Sheet 02: Defining Software Requirements (Problem Statement & Use Case Identification)

Objective:

- Identify and write clear, measurable software requirements.
- Create basic use case scenarios to describe system functionality.

Learning Outcomes:

By the end of this lab, students should be able to:

- 1. Write a clear problem statement.
- 2. Identify functional and non-functional requirements.
- 3. Draft simple use case descriptions.
- 4. Understand how to structure system behavior from a user's perspective.

Lab Activities

• Step 1: Write a Problem Statement (5 mins)

Each team drafts a 3–4 sentence problem statement outlining:

- What the problem is.
- Who is affected.
- Why it's important to solve.

• Step 2: Define Requirements

List at least:

- 5–7 **functional requirements** (what the system should do),
- 2–3 **non-functional requirements** (performance, usability, etc.).



• Step 4: Team Presentation

Each group will give a **3–4 minute informal presentation** covering:

- Your problem statement
- 2–3 key functional requirements
- 1–2 **use cases** (briefly walk through them)

> Lab Deliverable

Each student/group must submit a **PDF document** that includes:

- 1. Problem Statement
- 2. List of Functional & Non-Functional Requirements
- 3. At least 2 Use Case Descriptions
- 4. A copy of your presentation slides

Deadline: 3rd of June 2025

Submission Format: Upload to LMS as a single PDF