**Title:** Requirement Classification and Software Requirements Specification (SRS)

**Objective(s):**

1. In this lab, students will learn to classify the requirement into functional and non-functional requirements.
2. In addition, students will learn to identify the correct elements in Software Requirements Specification (SRS) document or Software Requirements Document.

**Tools, Equipment and Materials:**

1. [Hardware: Personal Computer with Internet access]
2. [Software: Text Editing Software]

**Instructions:**

**Part (B) – i. Determine the requirements classification types**

1. Functional requirements (FRs) specify the software functionality that the developer must build into the product to enable users accomplish their tasks, thereby satisfying the business requirements.
2. Non-functional requirement as the name suggest, are those requirements which are not directly concerned with the specific functions delivered by the system. Many non-functional requirements (NFRs) related to the system as a whole rather than to individual functional requirements.
3. While failure to meet an individual functional may degrade the system, failure to meet a non-functional system requirement may make whole system unusable. NFR’s are of different types namely usability requirements, reliability requirements etc.
4. Classify the following requirement by selecting the appropriate option:
5. ATM machine shall validate PIN of the user during login along with bio- metric verification.
6. “Peak transaction Volume(s)” - 20,000 calls in a busy hour, average duration 20 Secs, grade of services 99.98%.
7. "Brahe System” - It shall sound the alarm for 10 seconds at frequency of 100H when the brake is applied.
8. "Mean Time to failure (MTTF)” - There should be no more than three severity-1 outage per month.

|  |  |
| --- | --- |
| **Scenario** | **Requirements Classification Types(FRs/NFRs)** |
| a. |  |
| b. |  |
| c. |  |
| d. |  |

**Part (B) – ii. Determine the elements in SRC Document**

1. The output of requirement analysis procedure is the Software Requirements Specification (SRS) or Software Requirements Document it should specify what a system should perform as that document describes what the software will do and how it will be expected to perform.
2. A typical SRS usually consists of the system overview (both current and proposed). Objectives of the proposed system such that it is proven to be significant development over the existing system, business analysis of the client functional and non-functional requirement, glossary, etc.
3. Article Systems (AS), a giant books franchise has approached IT company ABC Ltd to help them automate their business processes and shift them online so all of its outlets across the globe would be under one portal. ABC Ltd. Had agreed to take on the project and both the companies sat down and strike a final contractual business deal for such implementation.
4. After detailed discussion and analysis, ABC Ltd. decided to follow the waterfall model for development of the project. This discussion covered topics such as the business analysis, its operational requirements and current existing system’s limitations and what the proposed system would do to address these issues.
5. Taking into account all the input gathered from the clients at AS, the concerned team at ABC Ltd took the best effort to propose a comprehensive detailed SRS document.
6. The team at ABC Ltd will require to identify the following items that are expected to be stated in the SRS document towards the development phase of the AS Project.

|  |  |
| --- | --- |
| **Items** | (**Yes** - Part of element in SRS.  **No** - Not part of element in SRS) |
| System Overview |  |
| Class Diagram |  |
| source Code |  |
| Use Cases |  |
| Flow Charts for algorithms realizing the functionality of the system |  |
| Code review Comments |  |
| test results |  |
| The Difference in the scope of the current system to be proposed system. |  |
| Non-Functional requirements |  |
| Features of new portal to be developed |  |

- End -