<u>Definition:</u> A software requirements specification (SRS) is a document that describes what the software will do and how it will be expected to perform. It also describes the functionality the product needs to fulfill all stakeholders needs.

Measuring Techniques

■ **SRS short description:** This project is to provide a friendly environment to maintain the details of books and library members. The main purpose of this project is to maintain easy circulation system using computers and to provide different reports. The Library System is a package to be used by Libraries to improve the efficiency of Librarians, Library employees and Users. The system provides books catalogue and information to members and helps them decide on the books to borrow from the library. The Librarian can keep the books catalogue updated all the time so that the members get the updated information all the time.

Size of SRS

♣ Size = 2.866 MB (3005440 bytes)

♣ Number of Pages, NoP = 83

o Measure procedure: Manually/Programatic

o Requirements : SRS

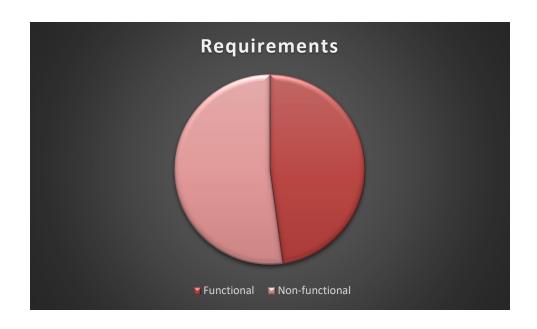
Requirements Meaure

Functional requirement: A functional requirement defines a function of a <u>system</u> or its component, where a function is described as a specification of behavior between inputs and outputs.

♣ Number of functional requirement, FR = 22

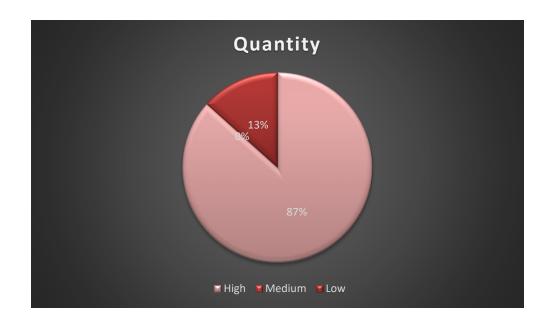
Non-functional requirement: Non-Functional Requirement (NFR) specifies the quality attribute of a software system.

♣ Number of non-functional requirement, NFR = 24



♣ Priority Based in three scale level (Low, Medium, High)

Priority	Functional Requirements
High	FR 1, FR 2, FR 3, FR 4, FR 7, FR 8, FR 9, FR 10, FR 11, FR 12, FR 13, FR 14, FR 15
Medium	FR 5, FR 6
Low	



- **↓** Total Weight of functional requirements(WOFR)
- **↓** Total Weight of non-functional requirements (WONFR)
- **↓** Complexity Equation = 0.6 * WOFR + 0.4 * WONF
 - Use Cases: Use case is a list of action or event steps, typically defining the interactions between a role and a system.
 - **♣** Number of use case, NoU = 22
 - **Use Case Diagrams:** These diagrams also identify the interactions between the system and its actors.
 - **♣** Number of use case diagrams, NoUD = 22
 - Number of stakeholders, NoS = 2
 - Number of Actors that connected to a specific Use case: 23
 - Number of action taken per use case description: Number of steps typically interactions between a role.
 - Number of Techniques to use priority requirements: The number1 (Three scale level)

• **Number of Elicitation Techniques used:** Count the number the elicitation technique used for collecting and documenting requirement from user.

- Cyclomatic Complexity: Cyclomatic complexity is a software metric used to indicate the complexity of a program. It is a quantitative measure of the number of linearly independent paths through a program's source code.
- **Number of test case:** Number of actions or conditions to verify the expected results.

TC = 49

■ **Number of RTM:** Count how many Requirement Traceability Metric exist in the SRS.

Number: 1

- **Jargon:** Technical jargon refers to the words that belongs to a certain field of knowledge which can only be understand by the specialized people who work on those areas.
 - **↓** Number of technical jargon, NoJ = 78 (approx)

o Measure procedure: Manually/programatic.

o Requirements: SRS

- Tools
 - Number of tools used for SRS, NoT = 2 (MS word, Lucid Chart)

o Measure procedure: Manually/programatic.

o Requirements: Developer information.

Reference

- **♣** Number of site visited to build the SRS = 6
- **♣** Number of template monitored = 2
 - o Measure procedure: Manually/programatic.
 - o Requirements : Developer information.

Time

- **Time consumed for the SRS, WH = 70 working hours (approximately)**
- o Measure procedure: Manually.
- $\circ \quad Requirements: Developer information.$

Developer

- \blacksquare People worked in the SRS, developer(s) = 3 and mentor(s) = 1
- o Measure procedure: Manually.
- o Requirements: Team information.