Course : IT314 Software engineering

Lab1 :   Identifying Functional and Non-Functional Requirements
Student id : 202001094
Name :   Deep Rakhasiya

Q1 Identify Functional and Non-Functional Requirements

Functional requirements are

- The Library Information System (LIS) needs to be built effectively in order to accommodate the growing student body and book inventory.

- As the librarian is head of the library department he must be allowed to add members of the library or remove someone from the member list .

- When a new book is bought, the librarian, who has administrative rights and total control over the system, can add a new record; similarly, if a book is taken off the shelf, a record can be removed.

- Anyone who is not a member is welcome to browse and search for books using this system. However, only legitimate users (members) of the Library Information System are permitted to issue or return books.

- Permit the user to look up books in the library by their title, author, publication date, and other criteria.

- Permit users to apply for issuing a particular book , and there must be a given index of the book so that users can easily find it in the library whenever they want .

- Users can request, reserve, or renew a book.

- When a user forgets to return a book on time, there should be a method in place to alert the librarian of the situation.

- The system calculates the fine for books that are late for their return.

- The end product would be a web application that only operated inside the institute's LAN and used the most recent HTML 5.

Non-Functional Requirements

1. **Usability** :
   The primary non-functional need for a library management system is usability. It should be easy to use because a user utilizing the system for the first time must finish the process in one sitting.

1. Everyone should be able to understand the user interface (UI) and find the necessary information without any extra training.

2. Depending on the needs, other languages can be offered.
3. The software must be as easy to maintain and alter with new features as it is to add them. The software also needs to be portable.

4. **Availability :**
5. The System must function flawlessly throughout the time the library is open and must be repaired in an hour or less if it issues. Within seconds or fewer, the system needs to react to the queries.
6. The system must include a notification option so that users can be informed when their desired books become available.

7. **Maintainability :**
   Adding new features and changing the programme should be as straightforward as possible, and the software should be simple to maintain. The software must also be portable in addition to this.

Q2: Identify scope, features and non-functional aspects of the following problem.

Scope :
1) Scope of our application must be that if must cover with people having hearing disabilities
2) Use of artificial intelligence should be encouraged so that it can recognise important sound occurrences like toddlers and automobile horns.

Features:
1) Instantly notifies users of sound incidents.

2) Preserving music or any sound event data for use in the future.
3) Continuous logging is good for the suffering users.

Non-Functional Aspects:

1) working right away.

2) Low latency ensures real-time operation.

3) Constructed with Android in mind.