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Lab-1 Report (IT314)

Q-1: Identify the functional and non-functional requirements or the given LIS

Functional requirements:

- Member can borrow or return the book, search the book
- Non-members can only search the book and not issue the book
- Extend the date of the borrowing if no other booking for that particular book has been made
- Library staff should be able to see day to day book transactions
- Librarian will have complete control over the system and can enter a new record when the book is purchased and also can remove the book off the shelf.
- A student or staff members can create account or login in the system by institute's mail id
- Everybody should have an option to reset the password in-case they forget the password.
- Every book will have the author name, category of the book and topics of the book as keywords so that it is easier to navigate through thousands of books.

Non-functional requirements:

- The system should be made using the recent HTML5
- System should run only within institute LAN.
- Confidential information like passwords should not be stored as plain text and properly encrypted.
- System should be scalable to store thousands of books in the database
- Handle the users issue and return of books concurrently (two persons can't issue the same book at once).

Q-2: Identify scope, functional and non-functional requirements:

Scope:

The objective of this project is to create an AI-enabled mobile application that recognizes the key sound effects happening around that are important to blind people's community and give alerts accordingly.

Functional requirements:

- When any important event is traced by the application, it should give vibration effects which can be turned on and off according to the user's needs.
- The alert of the type of sound received should be displayed on application in terms of picture and text.
- There’s no need to store user’s data and no sign up or login functions will be there. Everybody with or without an account will be able to use it.

Non-functional requirements:

- The AI should be able to accurately classify the sound received from the environment and predict the source by classifying it into one type like if it is car honking or baby crying or another type which is not known or has no important sound at all.
- It should give results very fast as it’s going to be a real time application. In other words, the latency should be as low as possible.
- Application should be scalable to handle millions of downloads and able to manage its versions.
- At the time of download by user, the AI engine will also be downloaded with the application as there’s no need to connect to the network for handling queries in real time.