**SRE ASSIGNMENT 1 – (S.M. HASSAN ALI BSE- 20K-1052)**

**1.1**

* This requirement includes only a single operating system that is Ms Win 10 so it is expected that the library system may not work or either it can be very less responsive on other operating systems.
* The problem with this requirement is that it will only allow the accredited users to access the cataloguing system whereas, in a library management system, everyone should have the access to use cataloguing facilities to search and browse through books.
* This requirement says separate module for cataloguing, user access and archiving meanwhile in the user access module can also already have cataloguing and archiving module as a sub part.

**1.2**

* Children and their parents.
* People from educational institutions such as students, teachers.
* Library staff such as administrator, network manager, librarian, system manager etc.
* Influencers, politicians, business people, philanthropists.

**1.3**

* It should be easy to use and the principles of learnability should be applied like how the prior knowledge can be applied to the new system. Its interface must be consistent and flexible to use for all types of customers. A menu option to be included that displays all the functionalities of the system.
* The reliable services can include a bug-free interface, a system that is easy to manage lots of traffic when there are an excessive amount of users. There should be premium services available for those classes of customers who are willing to pay and free services to everyday users. That should be done using different modules.
* The rapid information for the book can be easily found out by using strong searching and sorting algorithms in the database. Information of any book can be accessed using ISBN, Name(Title/Author), Category wise etc. Along with the search option, a drop-down menu should be there for all the categories of books. The displayed information must follow the protocols of readability for all users.

**2.1**

* Requirement engineering processes vary radically from one organisation to another, since the type of requirement, can be different for each organisation. There are some of the factors that affect this variability which is; technical maturity, disciplinary involvement, organizational culture and application domain. As a result, there is no such thing as an ideal requirements engineering process.

**2.2**

* The coarse-grain activity model visualises a picture of the entire process. It also describes the context of the process's various activities. Although, it does not include instructions on how to carry out a procedure. While the fine-grain activity model is being used for a specific process and trying to improvise the current processes. The RE process comes under these models hence all the parts of elicitation, analysis, specification and validation are taken into account.

**2.3**

* For any software process, change of requirement is a must thing but the waterfall model does not provide flexibility to the RE process. Due to which the spiral model looks more realistic as it allows the requirement changes. Along with that, the risks are encountered earlier for each stage making it more efficient than the waterfall model. WM lacks the feedback path and interaction hence it is not considered as an accurate reflection of the detailed software process in most organizations.

**2.4**

* It is important to understand the relation between actors and stakeholders in any RE process. Actors are mainly part of the execution team. They are specifically there to solve the problem of end-user. Most of the actors are associated with different process activities. Some are documenting the requirements of the people, going through the requirement elicitation process. Each role carries its significance like domain expert, RE engineer, project manager as well as end-user.

**2.5**

* Process improvement is all about modifying processes so that a better outcome could be attained. Firstly, we need to find the problems that have been part of the current process. Secondly, we need to set up some improvement objectives. Then we need to think about how these improved processes can affect and have a good impact on the overall activity. At last, how should process improvements be controlled and managed can be thought of?