

IT314: Software Engineering

Lab Session V – Project Understanding, Elicitation, Features

Prerequisites: Revisit the concepts taught to you in the lecture sessions about the requirement elicitation techniques and different ways of understanding the problem domain. Project have already assigned to the groups and all these activities will be performed in team.

Q.1. Discover ambiguities or omissions in the following statement of requirements for part of a ticket-issuing system:

An automated ticket issuing system sells rail tickets. Users select their destination, and input a credit card and a personal identification number. The rail ticket is issued and their credit card account charged with its cost. When the user presses the start button, a menu display of potential destinations is activated along with a message to the user to select a destination. Once a destination has been selected, users are requested to input their credit card. Its validity is checked and the user is then requested to input a personal identifier. When the credit transaction has been validated, the ticket is issued.

Q.2. Case Study- Identify the functional and non-functional requirements for the given problem specification

The institute has been recently setup to provide state-of-the-art research facilities in the field of Software Engineering. Apart from research scholars (students) and professors, it also includes quite a large number of employees who work on different projects undertaken by the institution. As the size and capacity of the institute is increasing with the time, it has been proposed to develop a Library Information System (LIS) for the benefit of students and employees of the institute. LIS will enable the members to borrow a book (or return it) with ease while sitting at his desk/chamber. The system also enables a member to extend the date of his borrowing if no other booking for that particular book has been made. For the library staff, this system aids them to easily handle day-to-day book transactions. The librarian, who has administrative privileges and complete control over the system, can enter a new record into the system when a new book has been purchased, or remove a record in case any book is taken off the shelf. Any non-member is free to use this system to browse/search books online. However, issuing or returning books is restricted to valid users (members) of LIS only.

The final deliverable would a web application (using the recent HTML 5), which should run only within the institute LAN. Although this reduces security risk of the software to a large extent, care should be taken no confidential information (e.g., passwords) is stored in plain text.

Q.3. For the project, you have chosen as a part of your Software Engineering course, you have to provide a detailed overview of the project description, scope of the project, assumptions, and possible features.

Answer the following questions: (and submit)

1. Identify all the stakeholders and users of the systems
2. List the various features exercised by each user of the system and describe all of them in detail (the user requirements and system requirements both)
3. Specify all the non-functional requirements for this system
4. Specify user interfaces for each user of the system
5. 'Open Issues'- issues those are identified but not taken care of
6. Develop use-case diagrams for your project.
7. Write 2-3 paragraphs describing the requirements/needs/objectives of your project.

Note: the solution identified in the previous lab need to be refined and appended with the solution of Q.3.

If you have any doubt in understanding any of the two questions, or confusion in (or preparing) the SRS sections, ask TA's and instructor. Beware of Plagiarism!!!