

CSCI910 – Software Requirements, Specifications and Formal Methods

Tutorial 2

Objectives

- Get familiar with the fundamental concepts of software development
 - Get familiar with the fundamental concepts of software requirement
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Exercise 1:

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

An automated ticket machine 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 is charged. 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 and the type of ticket required. Once a destination has been selected, the ticket price is displayed and customers are asked to input their credit card. Its validity is checked and the user is then asked to input their personal identifier (PIN). When the credit transaction has been validated, the ticket is issued.

Exercise 2:

Suggest how an engineer responsible for drawing up a system requirements specification might keep track of the relationships between functional and non-functional requirements.

Exercise 3:

Write a set of non-functional requirements for the ticket-issuing system, setting out its expected reliability and response time.