

Fundamentals of Software Engineering

Preparatory Tutorial: Requirements Analysis

Intro

The purpose of this Tutorial is to introduce you to requirements capture at a high level. You will be asked to think through what the functional requirements are for a specific project and to use “Natural English” to record some initial requirements for the proposed system.

You are not expected to have any computing specific skills. We will look at the skills required in more detail as the module progresses.

Task

Functional Requirements will be “formally” defined later in this module. For the moment you are being asked to define the requirements of an Undergraduate Student Placement Matching System. This question is open ended and does not have a definitive solution. A brief outline of the proposed system is given below.

Your primary task is to use your experience and/or your imagination to provide a first “cut” attempt at identifying what the system should be capable of providing in terms of functionality.

You should identify the users of the system and the information that is likely to be held on the system. Try to identify the functionality of the system. Ask yourself, “What will the System do on behalf of each user”. For each identified functionality of the system, write a few sentences or short paragraph to outline what the functionality involves.

Scenario/Brief Outline

Many University courses provide the opportunity to gain work experience by taking a job in industry for a year as part of a sandwich course or to gain experience during the summer by working for a company for 3 or 4 months. The idea behind the matching service is for employers to provide placement opportunities and for students to submit CVs outlining the skills they have and the locations where they are interested in working. The matching service then links employers with students. All the work is done behind the scenes using keywords and phrases to determine if there is a match.

See next page for some hints on getting started.

Fundamentals of Software Engineering

Preparatory Tutorial: Requirements Analysis

Hints

To help you with this task you may want to ask yourself the following questions.

The first set of questions focus on whom or what uses the system.

Identify the people who use the system? Can these people be categorised into sub groups?

Why are the identified people using the system? What information do the identified people get from the system?

Thinking “laterally” now who or what else interacts with the system?

What are the sources of information that the system uses?

Is the system used within an organisation and if so where is it used?

How are the day to day aspects of the system maintained?

The next set of questions focuses on what the proposed system does, that is, what functionality does the system perform.

What artefacts does the application handle?

Will the artefacts change much/at all during the life of the application?

What are the advantages of putting these artefacts on line or this product on line?