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**TUNKU ABDUL RAHMAN UNIVERSITY COLLEGE**

FACULTY OF COMPUTING AND INFORMATION TECHNOLOGY

BAIT2133 WEB ENGINEERING

TUTORIAL 3

**Answer all questions:**

1. Briefly explain on the activities of Requirements Elicitation.

Requirements elicitation is all about learning and understanding the needs of users and project sponsors with the ultimate aim of communicating these needs to the system developers.

1. Explain how to perform Requirement Elicitation.

The requirements elicitation process may appear simple: ask the customer, the users and others what the objectives for the system or product are, what is to be accomplished, how the system or product fits into the needs of business, and finally, how the system or product is to be used on a day-to-day basis.

3.Discuss the challenges of stating Non Functional Requirements.

'Problems of scope'. The boundary of the system is ill-defined or the customers/users specify unnecessary technical details that may confuse, rather than clarify, overall system objectives. Problems of understanding. The customers/users are not completely sure of what is needed, have a poor understanding of the capabilities and limitations of their computing environment, don’t have a full understanding of the problem domain, have trouble communicating needs to the system engineer, omit information that is believed to be “obvious,” specify requirements that conflict with the needs of other customers/users, or specify requirements that are ambiguous or untestable.

4.Explain Internal and External Constraint.

Internal constraints include people, policy, and equipment issues, which can actively reduce the efficiency of specific process flows.

External constraints include resource scarcity, contracts (i.e., suppliers or employees), and legalities.

5.Discuss the activities in Requirement Elicitation.

Requirements elicitation practices include interviews, questionnaires, user observation, workshops, brainstorming, use cases, role playing and prototyping. Before requirements can be analyzed, modeled, or specified they must be gathered through an elicitation process.

1. Use Case is used to capture the interaction between user and the system. Describe how use case can achieve this purpose.

Use cases add value because they help explain how the system should behave and in the process, they also help brainstorm what could go wrong. They provide a list of goals and this list can be used to establish the cost and complexity of the system.

1. Discuss the guidelines for effective negotiation.

Problem Analysis to Identify Interests and Goals. Effective negotiators must have the skills to analyze a problem to determine the interests of each party in the negotiation. A detailed problem analysis identifies the issue, the interested parties and the outcome goals. Preparation Before a Meeting

Before entering a bargaining meeting, the skilled negotiator prepares for the meeting. Preparation includes determining goals, areas for trade and alternatives to the stated goals.

1. Explain Requirement Formulation.

Concentrate on defining the project needs and scope identification of a business need. description of application objectives. defines major application features. establishes a basis for the elicitation action that follows. establish a common set of goals and objectives. identifies the scope of the development effort.

1. Explain the practices of requirement formulation.

Keep the sentences and paragraphs short. Use proper grammar, spelling, and punctuation. Use terms consistently and define them in a glossary or data dictionary. Remember the important audience for this document is the customer, developer and tester. Please keep in mind their perspective. It is very important to find the right level of granularity. Avoid long narrative paragraphs that contain multiple requirements. The requirement should be broken down into small testable requirements.

1. Discuss the techniques of requirement gathering. Identify the situation where these techniques are appropriate to apply.

One-on-One Interviews: One-on-one interviews are the most common technique for gathering requirements, as well as one of the primary sources of requirements. To help get the most out of an interview, they should be well thought out and prepared before sitting with the interviewee.

Group Interviews: Group interviews are similar to one-on-one interview, except there is more than one person being interviewed. Group interviews work well when the interviewees are at the same level or position. A group interview also has an advantage when there is a time constraint.

Questionnaires/Surveys: Questionnaires, or surveys, allow an analyst to collect information from many people in relatively short amount of time. This is especially helpful when stakeholders are spread out geographically, or there are dozen to hundreds of respondents whose input will be needed to help establish system requirements.