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FACULTY OF ENGINEERING & TECHNOLOGY

BCS-503: Object Oriented Techniques

Lecture-09

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OBJECTIVES

In this PPT, you will learn to:

- ❖Setting Boundaries and Project Scope
- ❖System Boundary
- ❖Project Scope
- ❖System Definition
- ❖Refine the Use Cases

SETTING BOUNDARIES AND PROJECT SCOPE

- System boundaries are set for each iteration of the system to depict the functionality in terms of the use cases and actors.

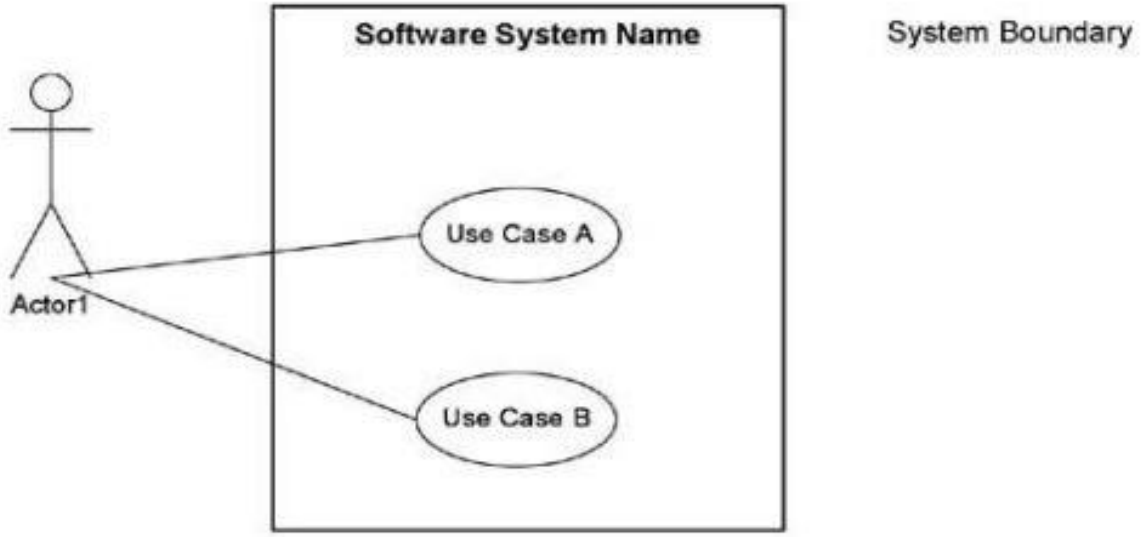
- When designing a complex system, system boundary enables you to clearly demarcate which sub-system is being modeled.

- After setting the system boundary, scope for the software system is established.

- The scope includes estimated the resources to complete a project.

System Boundary

- To identify system boundary:
- Prioritize use cases of the system.
- Identify iterations for developing the system.
- Identify the interaction between use cases and actors of each iteration.
- Represent the system boundary using a rectangular box around the use cases in the use case diagram.



PROJECT SCOPE

Establishing project scope before implementing the project ensures that all the requirements of the project are fulfilled in time and with the available resources.

Project scope is a function of:

- Project functionality
- Project resources
- Available time

To establish the project scope:

- Identify the requirements of the system.
- Set priorities for the requirements to identify successive iterations.
- Assess the efforts required to implement the requirements.
- Analyze the impact of implementing each requirement of the system.

SYSTEM DEFINITION

- Use cases defined in the initial iterations of the development process may not be elaborate and specific due to inadequate information about the software system.

- You need to refine software system definition to obtain detailed and specific information that enables you to design, code, and test the software system.

- To refine the software system definition, you refine use cases and establish relationships among use cases.

REFINE THE USE CASES

To refine use cases, you need to perform the following steps:

1. Review the actors of the use cases.
2. Review the names of the use cases.
3. Refine the description of the use cases.
4. Define and refine the flow of events.
5. Identify alternate paths.
6. Identify preconditions and post conditions.
7. Identify the non-functional requirements.

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Multiple Choice Question:

Q1. What does conceptual modelling represent?

a) Responsibility

b) Attributes

c) Important relationships between them

d) All of the mentioned

Multiple Choice Question:

Q2. What are the sequence of steps for conceptual process?

a) Add Classes

b) Add Attributes

c) Add Association

d) All of the mentioned

Multiple Choice Question:

Q3. Candidate classes should include which of the following?

a) Physical entities, individuals

b) Things managed, tracked, recorded in the real world

c) Associations

d) Physical entities, individuals, Things managed, tracked, recorded in the real world

Multiple Choice Question:

Q4. Which of the following statements is false?

a) Add use cases to the list at any point of time

b) Reviews can be done on noun phrases designating characteristics of other entities

c) Use case represent interactions which are result of collaborative activity

d) All of the mentioned

Multiple Choice Question:

Q5. Which of the following refers to the objectives that the deliverable product should fulfil?

a) Project Functions

b) Project Reports

c) System Boundary

d) Available Time

Summary

In this PPT, you learned that:

- The system boundary enables you to identify the iterations involved in SDLC based on the priority of use cases.
- The scope of a project depends on the objective of the project, the available resources, and the time specified for its completion. You need to establish the project scope before implementing the design of the system.
- To refine the system definition, you refine the use cases identified for the system. e