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Computing Project

Topic 3:
Design Specifications

Scope and Coverage

This topic will cover:

- Structure of a Design Specification
- Content of a Design Specification

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Learning Outcomes

By the end of this topic, students will be able to:

- Carry out the design for a computing artefact.

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Key Points - 1

- The content of this lecture is not meant to replicate or replace concepts and techniques introduced in other modules associated with this programme.

- It is meant to compliment concepts and techniques introduced in other modules associated with this programme.

- This lecture should help YOU decide how YOU will document the design for YOUR project.

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Key Points - 2

- Every text book, academic paper or Web site that you look at will put forward a different structure for a design specification.

- The structures are not right or wrong – they are different.

- They are different because of the context within which they are to be used.

- The structure presented here is the structure YOU are required to use for YOUR project.

- This argument also applies to the contents of a design specification.

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Structure of a Design Specification

Structure

- Structural Model

- Behavioural Model

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Structural Model

- This section presents a detailed class diagram for YOUR system

Behavioural Model

- This section describes the behavior of the actors and classes in YOUR system

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Content of a Design Specification

Important

- The contents presented here are the contents YOU are required to produce for YOUR project.

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Structural Model - 1

- This section presents a detailed class diagram for YOUR system. At this stage in the project the class diagram will be complete it should contain:

  - Classes and the relationships between them

  - Methods

  - Attributes

- The above must be modelled using UML notation

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Structural Model - 2

- The completed class diagram should be supported by appropriate narrative that relates to YOUR project

- Detailed class definitions should be included in an appendix.

Behavioural Model

- This section describes the behavior of the actors and classes in YOUR system and should contain:
    - Either Sequence Diagrams
    - Or Collaboration Diagrams

- The above must be modelled using UML notation

- The completed UML diagrams should be supported by appropriate narrative that relates to YOUR project

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Important Points

- This lecture provides an overview of the structure and content of the Design Specification for the Computing Project.

- Failure to adhere to this structure and content will result in lost marks.

- This Chapter of your report is not just a collection of UML diagrams – it is a collection of UML diagrams supported by appropriate narrative.

Topic 3 – Design Specifications

Any Questions?