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Computing Project

Topic 3:  
Design Specifications

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Design Specifications Topic 3 - 3.2

Scope and Coverage

*This topic will cover:*

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



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Design Specifications Topic 3 - 3.3

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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Design Specifications Topic 3 - 3.4

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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Design Specifications Topic 3 - 3.5

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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Design Specifications Topic 3 - 3.6

Structure of a Design Specification

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Design Specifications Topic 3 - 3.7

Structure

- Structural Model
- Behavioural Model

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Design Specifications Topic 3 - 3.8

Structural Model

- This section presents a detailed class diagram for YOUR system

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Design Specifications Topic 3 - 3.9

Behavioural Model

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

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Design Specifications Topic 3 - 3.10

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## Content of a Design Specification



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Design Specifications Topic 3 - 3.11

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## Important

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



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Design Specifications Topic 3 - 3.12

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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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Design Specifications Topic 3 - 3.13

## 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.

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Design Specifications Topic 3 - 3.14

## 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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Design Specifications Topic 3 - 3.15

## Important Points

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Design Specifications - Topic 3 - 3.16

- 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.

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Design specifications - Topic 3 - 3.17

Topic 3 – Design Specifications

*Any Questions?*

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