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Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

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(SCOPE)

Notes

Software Engineering

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1 Module:2 Introduction To Software Project Management

1.1 Risk Management

1.2 RMMM Plan

1.3 CASE TOOLS

2 Module:3 Modelling Requirements

2.1 System Modeling

2.2 Requirements Specification and Requirement Validation

2.2.1 Requirements Elicitation techniques

2.2.2 Requirements management in Agile.

3 Module:4 Software Design

3.1 Design concepts and principles

Converting Software Requirement Specification (SRS) document to a design document.

Parts of design process:

1. Interface Design
2. Architecture Design
3. Data/Class Design
4. Component Level Design

Mapping Diagram to Design Model:

Interface Design	Architecture Design	Data/Class Design	Component Design
<ul style="list-style-type: none">• Use Case• Activity• Data Flow• State• Sequence	<ul style="list-style-type: none">• Class• Analysis	<ul style="list-style-type: none">• Data-Flow• Class• Anaylysis	<ul style="list-style-type: none">• Class• Data Flow• Sequence Diagram

FIGURE 8.1

Translating the requirements model into the design model

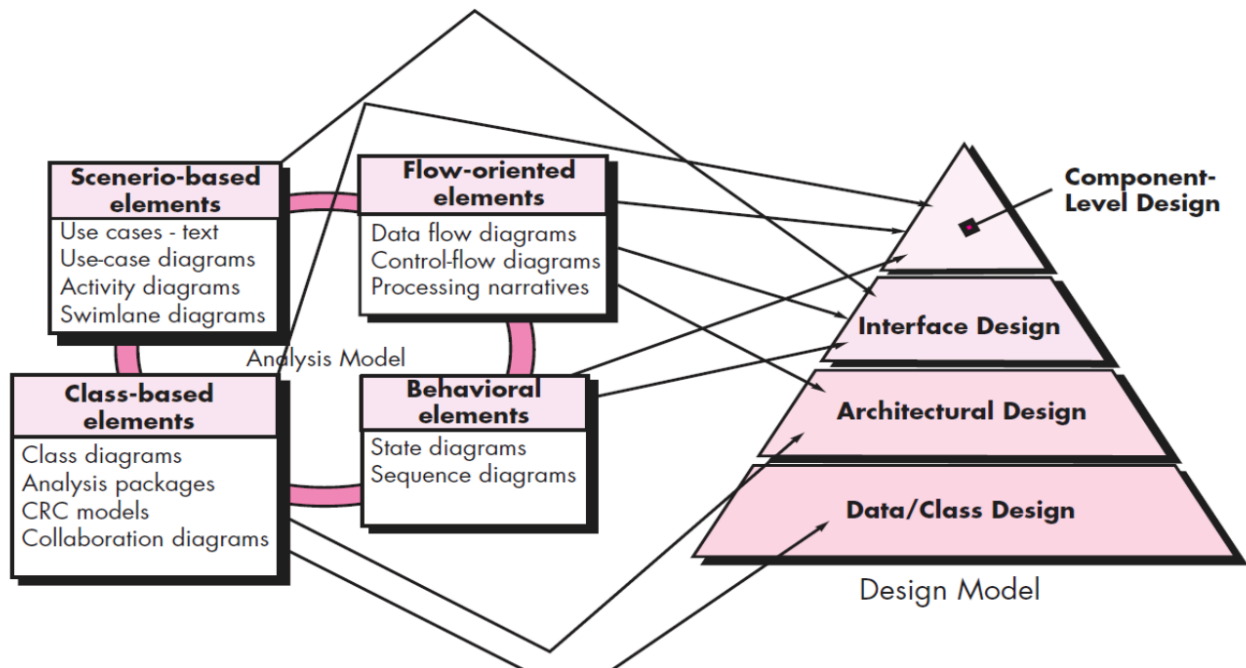


Figure 1: Diagram to Design Model mapping

3.2 Abstraction

3.3 Refinement

3.4 Modularity Cohesion coupling

3.5 Architectural design

3.6 Detailed Design Transaction Transformation

3.7 Refactoring of designs

3.8 Object oriented Design User-Interface Design

4 Module:5 Validation And Verification

4.1 Strategic Approach to Software Testing

4.1.1 Testing Fundamentals Test Plan

4.1.2 Test Design

4.1.3 Test Execution, Reviews

4.1.4 Inspection and Auditing

4.2 Regression Testing

4.3 Mutation Testing

4.4 Object oriented testing

5 Diagram

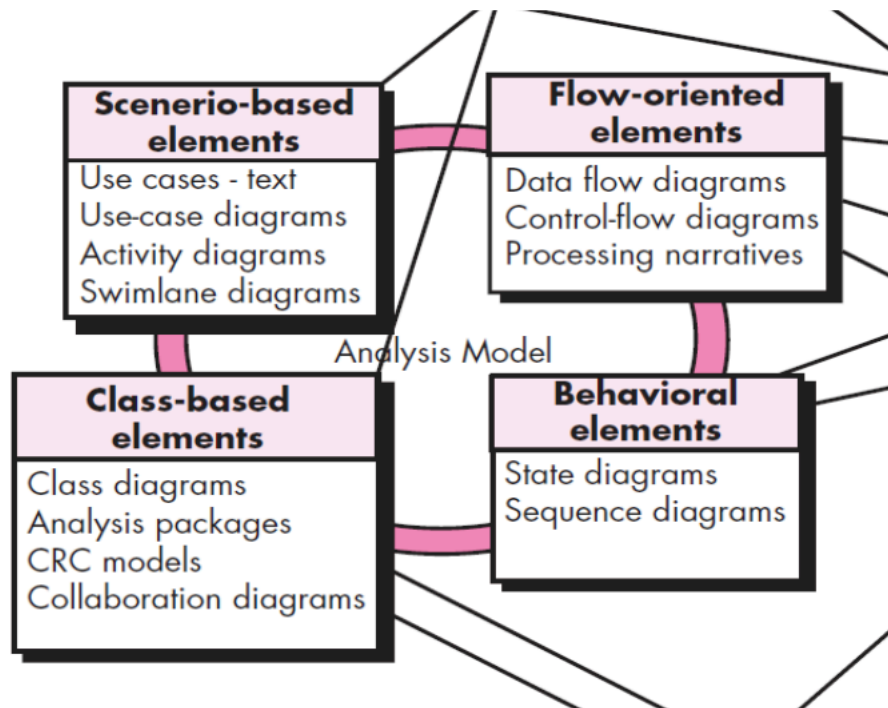


Figure 2: Types of Diagrams

5.1 DFD (1, 2)

5.2 Use Case

5.3 Sequence

5.4 Class

5.5 Activity

5.6 ER

5.7 State Transition