

UML Practice for Preparation of Functional Specifications Document (FSD)

(Paramatrix Technologies Pvt Ltd)

Requirement Diagram

- This will be made up of Requirement, Issue & Objective Elements
- Identify Issues and group them into Headings
- Define the Requirements that will address these Issues
- If there is a Requirement, then query the Subject Matter Expert (SME) to understand the Issue that the Requirement is going to address
- Ensure that all Issues are addressed by Requirements
- Ensure that all Requirements contribute towards (Business/Technical) Objectives.
- Aggregate Issues, Requirements and Objectives sensibly
- Suitably Colour-code the Requirements, Issues and Objectives

User Access Model

- Identify the Roles in the Various Departments
- Identify Profiles as aggregation of Roles
- Define an Actor for every Role
- Define Profiles as Instance of Roles

Activity Diagram

- Draw Swim-lanes for Each Role
- Colour-code the Swim-lanes as per Department
- Assign Roles and/or Profiles to Swim-lane
- Draw Activities, Decision Boxes, Start and End Elements, and connect them using the Connectors and Join/Fork Elements (Control Flows)
- Label all the Decision Boxes and the Decision Flows Precisely
- Use the Note element where necessary and suitably colour-code them to achieve differentiation
- Always maintain Titles for every Activity Diagrams
- Try and include all possible Flows and Scenarios in a single Diagram

Document Scenarios

- These are the Real-world Business Objects in the Business/Problem Domain
- Prepare a Business Objects Model
- Identify all Objects associated with the Document Scenario, during the various stages in the lifecycle of the Document Scenario
- Prepare separate Diagrams for every Document Scenario

Use Case Diagram

- Identify the List of Use Cases for every Document Scenario
- Define Business Boundaries for every Document Scenario so as to include all identified Use Cases
- Link Actors to Use Cases in Use Case Diagrams
- Qualify Links suitably to indicate whether a particular Use Case extends/includes another.

Use Case Elaboration

- Identify the Primary/Basic Flow, the lists of Alternate Flows/Sub-flows and Exception Flows for every Use Case
- Add Business Objects to Context References of Use Cases so that they can be referenced from within the Use Case Step.
- Define System Objects during the course of Use Case Analysis and keep them in separate Packages, based on their Types
- Write Contextual Use Case Steps to build the Structured Use Case Elaborations
- Update the Steps of the Alternate and Exception Flows and specify the points where they branch out and join/converge with the Primary Flow

Information Architecture

- Identify the Information Elements that are required, for the Transactions to take place, at every Step of every Business Scenario.
- Identify the Information generated, during the course of the Transactions that take place at every Step of every Business Scenario.

Screen Visualisation using Wireframes

- Design Grids, Forms, Pages, Lists, Menus, etc., based on the Information Architecture and Object References in the Use Case Elaborations.
- Plan the Navigation/Process Flow and the Navigational Elements based on the Workflow Requirements/Considerations.

<End of Document>