**Software Requirements Specifications**



Course Name : Software Engineering 1

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# Team

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# Document Purpose and Audience

* **Any document anywyere should tell us 2 things: What is this document? Who is execpetd to read it?**
* **Write in simple notes, What is this documet?**
* **List the taget audience to read this document (e.g. CEO? Project Manager? Customer...?)**

# Introduction

## Software Purpose

* **Summarize the purpose of the software**

## Software Scope

* **Any software could have too many componeonts / Major features .. but we should implement specific things...this is the scope**
* **In simple points, what is the software scope (focus on componeonts / Major features, not tiny things)**

## Definitions, acronyms, and abbreviations

* **In a table, list all needed ones. Consider the audeicne**
* **Think as following: Document has abbreviation ATM..IFF audience doesn’t know it, let’s calrify it.**

# Requirements

## Functional Requirements

* **This is the most critical part...** **functional requirements describe what the system should do**
  + **E.g. an ATM allows you to enter Card, enter user name password and withraw a money**
* **List all the system requirements, respecting the problem statement giving by your TA**
  + **Make sure to go in the missing details for the mentioned features/components**
    - **Discuess with TA**
  + **Going byeond them (e.g. adding new complete major feature / component) is breaking the statement scope**
* **Each requirement should be clearly described, such that it can be understood without the presence of the one who wrote it.**

## Non Functional Requirements

* **Non-functional requirements describe how the system works**
  + **E.g. Withdraw operation will be done within 20 second. Network is using secured protocols. System allows up to 30,000 withdrawal per minute.**
  + **Think about the operation / system quality**
* **There are too many non functional requirements. Read in** [**wiki**](http://en.wikipedia.org/wiki/Non-functional_requirement) **and Chapter 4. Pick the suitable ones for your system. Non-functional requirements must be VERIFIABLE, i.e., MEASURABLE.**
  + **Some Types as just examples: Usability, Reliability, Performance, Security, Scalability, Portability, Maintainability**
  + **Select the sutiable ones, for each one write the details**
  + **Be realistic **

|  |  |
| --- | --- |
|  | **Details** |
| **Performance** | * **Withdraw operation will be done within 20 second** |
| **Scalability** | * **System could be horizontally ....** * **And** * **In addition** |

# System Models

## Use Case Model

* **Using UML, write the use case model expressing the system actors & operations**

## Use Case Tables

* **Using below table template, for each requirement write a use case table that shows user/system interaction**
  + **If one requirement is so big, you could divide it to more than table**
  + **If some requirements are not major, you could plugin them in other senario**
    - **E.g. you may not do LogIn Usecase table as it is simple functionality**
* **Flow of events should be very detailed**

|  |  |  |
| --- | --- | --- |
| Use Case ID: |  | |
| Use Case Name: |  | |
| Actosr: |  | |
| Pre-conditions: |  | |
| Post-conditions: |  | |
| Flow of events: | **User Action** | **System Action** |
| 1- User Enter Card and Password. |  |
|  | 2- System Verify user data |
| 3- User Select Vodafone from the list |  |
|  | 4- System retrieves Vodafone bills |
| and so on |  |
| Exceptions: |  | |
| Includes: |  | |
| Notes and Issues: |  | |

# Ownership Report

* **Remove the following notes and any red notes**
* **For every item in this document, write the owners. If someone is owner of something, s/he understands it 100.%**
* **Team leader must verify the table with the team members.**

|  |  |
| --- | --- |
| **Item** | **Owners** |
|  |  |
|  |  |