GALGOTIAS UNIVERSITY

CAT I Semester III, V, VII, IX All Programs
Answer uploading Template

Admission No. of Student	21SCSE1011615	Name of Course	Software engineering
Name of Student	Abhinav kumar Choudhary	Course Code	BCSE2355
Program	B.Tech CSE	Date of Examination	30/09/2022
Semester	Third	Time	11:00 – 12:30
Signature of Student	Abhinav kumar chy		

Student shall start writing from below:

1) The prime objective of software engineering is to develop methods & procedures for software development that can scale up for the large systems & that can be consistently to produce high-quality software at low cost & with a small cycle of time.

2) SRS (Software Requirements Specification) is a document that describes what the software will do & how it will be expected to perform. It also describes the functionality the product needs to fulfill all stakholders needs.

3) Feasibility study is performed on a software project to understand the viability of the product. Understanding a products feasibility has a lot to do with how it will perform

in the market, what will work, what competitors have created and how will this product will survive in the market.

Types of feasibility study:-

(i) Technical feasibility :-

This assessment focouses on the technical recourses available in the organization.

(ii) Economic Feasibility :-

This assessment typically involves a cost/benifits analysis of the project.

(iii) Legal Feasibility :-

These assessment investigates the aspects of the proposed projects conflicts with legal requirement.

(iv) Operation Feasibility :-

This involves undertaking a study to analyze & determine whether & how well organiz-ation needs.

(v) Scheduling Feasibility :-

This is very most imporlant for project success and estimates in how much time our project completed.

4) Software Requirement Specification is a document that describes what the software will do & how it will be expected to perform. It also describes the functionality the product needs to fulfill all stakeholders needs. This report lays a foundation for software engineering activities and is constructing when the entire requirement are elicited and analyzed.

In order to form a good SRS, you must remember these points:—

(1) Introduction
- Purpose of this document
- Scope of this document
- Overview

2) General description

3) Functional Requirements

(4) Interface Requirements

(5) Performance Requirements

(6) Design constraints

(7) Non-functional Attributes

(8) Preliminary schedule and Budget

(9) Appendices

5) The waterfall Model was the process model to be introduced. It is also referred to as a linear-sequential life cycle model. It is very simple to understand & use.

The spiral model, initially proposed by ~~Bohem~~ Boehm is evolutionary software process model that couples the iterative features of prototyping with controlled and ~~sequential~~ systemic aspects of the linear sequential model.

There are six different phases of waterfall models are:-

(i) Requirements:- It involves understanding what needs to design & what is its function, purpose, etc

(ii) System Design:- It helps in specifying hardware and system requirements & also helps in defining overall system architecture.

(iii) Implementation:- with inputs from system design system is first developed in small programs called units. each unit is developed & tested for its functionality.

(IV) Integration & Testing:- The software designed, needs to go through constant testing to find out any errors or flaws.

(V) Deployment of System:- Once the testing is done, the product is deployed in the market or released in the market.

(vi) Maintenance:- This steps occur after the installation and involves making modifications to the system.

Each phase of the spiral model is divided into Four quadrants & function of all four quadrants are :—

(i) Objective determination & identify alternative solution :— It is gathered from the customers & objective are identified, elaborated & analyzed.

(ii) Identify & Resolve Risk :— All the possible solutions are evaluated in this & selected best possible solution.

(iii) Develop next version of the product :—
At the end of this stage the next version of the software is available.

(iv) Review and plan for the next phase :—
At this stage review of software from costumers collection & planning for next phase is started.

6) Requirement engineering is the process of defining, documenting & maintaining its requirements. It is also a proces of gathering & defining service provided by the system.

Requirement engineering cosist of following activities:-

(i) Requirement elicitation:- It is related to the various ways used to gain knowledge about the project domain and requirements. The various sources of domain ~~en~~include, costumer, stakeholder, etc

(ii) Requirement Specification:-

This activity is used to produce formal software requirement models. Models used at this stage include, E.R diagram, DFDs, FDDs, etc

(iii) Requirements managements:-

It includes process of analyzing, documenting, Traking, priorizing and controlling, of stake holders, etc.

(iv) Requirements verification & validation:-

* Verification:-

It refers to the set of task that ensures that the software is correctly implemented.

validation:-

It refers to a different set of task that has been built is tracable to costumer requirements.