

SE Practical 3

classmate

Date _____
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Name: Ubsid Akhtar Ghante

Reg no.: 2019BC5043

Roll no.: A22

Division: A

* Aim: Selecting the appropriate software process model for the given scenario.

* Theory:

Software Development Life Cycle.

It is a hypothetical structure which explains all process activities in a software development with its stages & tasks involved in each step from planning to completion of support & maintenance.

- Purpose of SDLC:

- i) Quality software
- ii) Deadline achieved
- iii) Budget maintained
- iv) Customer's satisfaction

- Stages of SDLC:

- i) Requirement Analysis → contains SRS
- ii) Planning → planning about resources & process
- iii) Design → software architecture & algorithm
- iv) Implementation → Coding
- v) Testing & Maintenance → removing errors & implementation.

Note: Quality is not a feature that can be incorporated once the software is developed.

Quality parameters are fulfillment of requirement, reliability, efficiency, flexibility, functionality, ease of use, low cost & good design.

Software Process Models

SDLC has family that contains software process models which follow the framework of SDLC. SPM has 3 main categories those are as follows:

1] Linear sequential model:

This follows sequential & step by step approach of SDLC. It is also known as Waterfall Model. Each phase is fixed & must be completed with deliverables at each stage before going to next stage. It is used for small projects.

2] Prototyping Model:

It follows SDLC with "quick design" approach, which focuses on representation of those aspects of the software that will be visible to the customer or user. This leads to prototype which is reviewed by customer & used to refine by developers by considering recommendations of customers.

3] Evolutionary software process model:

It is suitable for large problems where it is broken down into modules to increment development & delivery. It is also used for obj. oriented development projects. It is iterative & is more suitable for large budget & no time limit kind of projects.

It has following types:

i] Incremental model

ii] Spiral model

iii] WIN WIN Spiral Model

iv] Concurrent development model

* Conclusion: We have successfully learnt how to assign a process model to a specific problem or project.

Software Engineering

Software Engineering

> Select the appropriate Software Process Model for the given scenario > Pre Test

Aim

Theory

Pre Test

Procedure

Simulation

Post Test

References

Select the appropriate Software Process Model for the given scenario

Pre Test

1) What is software?

- ☐ Protocol
- ☐ OS
- ☒ Set of instructions
- ☐ Computer

2) Software engineering is used to achieve _____ of software

- ☐ Procedure
- ☐ Architecture
- ☐ Problem solution
- ☒ Quality

3) To describe what the customer requires, establishing a basis for the creation of a software design, to define a set of requirements that can be validated once the software is built _____ is used.

- ☐ Object oriented model
- ☐ Spiral model
- ☒ The analysis model
- ☐ None

4) Programs, documents, and data produced are _____ .

- ☐ Product
- ☒ Work product
- ☐ Tools
- ☐ Methods

5) Software is developed or engineered (by following systematic, disciplined and quantifiable approach), it is not manufactured.

- ☒ True
- ☐ False

6) The foundation for software is the _____ layer.

- ☐ tools
- ☐ method
- ☒ process

Evaluate

1) Correct

2) Correct

3) Correct

4) Correct

5) Correct

6) Correct

Software Engineering

Software Engineering

> Select the appropriate Software Process Model for the given scenario > Post Test

Select the appropriate Software Process Model for the given scenario

Post Test

1) Linear sequential model is suitable for huge problem.

☐ True

☒ False

2) Spiral model is suitable for student projects.

☐ True

☒ False

3) Prototyping model and spiral model follows generalize approach of _____

☒ Waterfall Model (Linear sequential model)

☐ RAD Model

4) For a well understood data processing application it is best to use the _____

☒ Linear Sequential Model

☐ Prototype Model

5) In the classical waterfall model during which phase is the Software Requirement Specification (SRS) document produced?

☐ Design

☐ Maintenance

☒ Requirements analysis and specification

☐ Coding

6) _____ model follows "quick design" approach.

☐ Linear Sequential Model

☒ Prototype Model

☐ Spiral Model

☐ Incremental model

Evaluate

1) Correct

2) Correct


3) Correct

4) Correct

5) Correct


6) Correct

 Aim


 Theory

 Pre Test

 Procedure

 Simulation

 Post Test

 References