PRACTICAL - 1

AIM:

Write down your Project Definition and select appropriate model for it's development.

Definition:

Assignment-Administration-System *:* A Assignment Submission Web Application for Charusat University

THEORY:

Waterfall Model: The waterfall model is a classical model used in system development life cycle to create a system with a linear and sequential approach. It is termed as waterfall because the model develops systematically from one phase to another in a downward fashion.

Iterative Model: The iterative model is also called an incremental model in which a particular project or software is broken down into large numbers of iterations, where each iteration is a complete development loop resulting in a release of executable product or software.

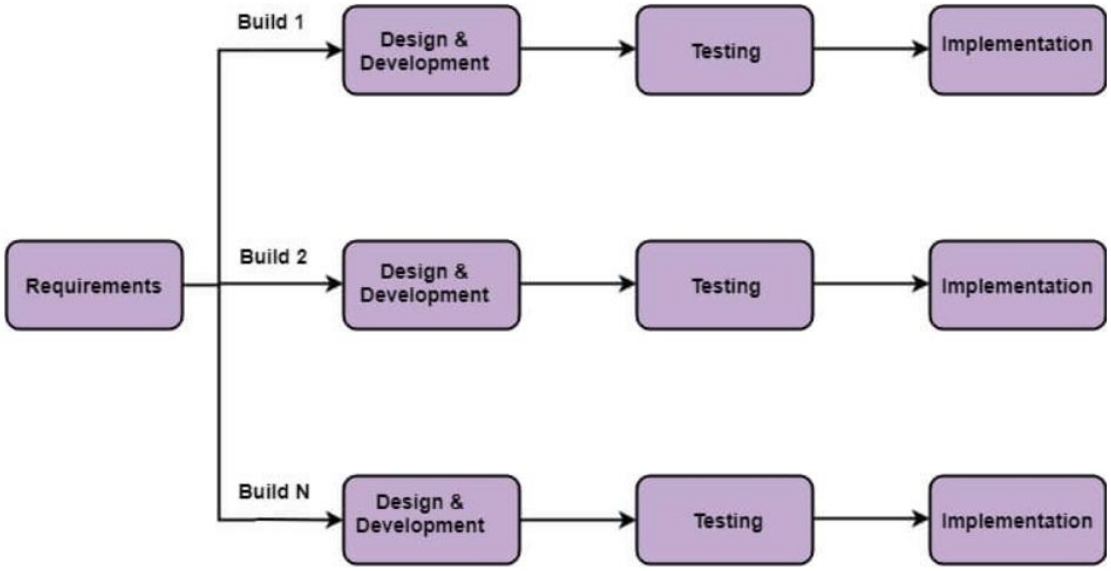
Spiral Model: The spiral model is similar to the incremental development for a system, with more emphasis placed on risk analysis. The spiral model has four phases: Planning, Design, Construct and Evaluation. A software project repeatedly passes through these phases in iterations (called Spirals in this model).

Prototype Model: The prototyping model is a systems development method in which a prototype is built, tested and then reworked as necessary until an acceptable outcome is achieved from which the complete system or product can be developed.

Which Model We Will Apply:

Incremental Model (Iterative Model) is a process of software development where requirements are divided into multiple standalone modules of the software development cycle. Each module goes through the requirements, design, implementation, and testing phases in this model.

Every subsequent release of the module adds function to the previous release. The process continues until the complete system is achieved.



1. Requirement analysis: In the first phase of the incremental model, the product analysis expertise identifies the requirements. And the system functional requirements are understood by the requirement analysis team. To develop the software under the incremental model, this phase performs a crucial role.

2. Design & Development: In this phase of the Incremental model of SDLC, the design of the system functionality and the development method are finished with success. When software develops new practicality, the incremental model uses the style and development phase.

3. Testing: In the incremental model, the testing phase checks the performance of each existing function as well as additional functionality. In the testing phase, the various methods are used to test the behavior of each task.

4. Implementation: The implementation phase enables the coding phase of the development system. It involves the final coding that designed in the designing and development phase and tests the functionality in the testing phase. After completion of this phase, the number of the products working is enhanced and upgraded up to the final system product.

Advantage of Incremental Model

- Errors are easy to be recognized.
- Easier to test and debug
- More flexible.
- Simple to manage risk because it is handled during its iteration.
- The Client gets important functionality early.

Disadvantage of Incremental Model

- Need for good planning
- Total Cost is high.
- Well defined module interfaces are needed.

Why we select Incremental Model

Since the application is having so many modules once we launch the application we can integrate small modules later. We can put our assignment as a small module one by one as its done. Early launch of the application can bring some revenue to the table and by adding small modules gradually we can increase the Net Profit drastically over the years.

Learning Outcome:

Through this practical, I have learned about a different type of Software Engineering model and decided the appropriate model for my project.