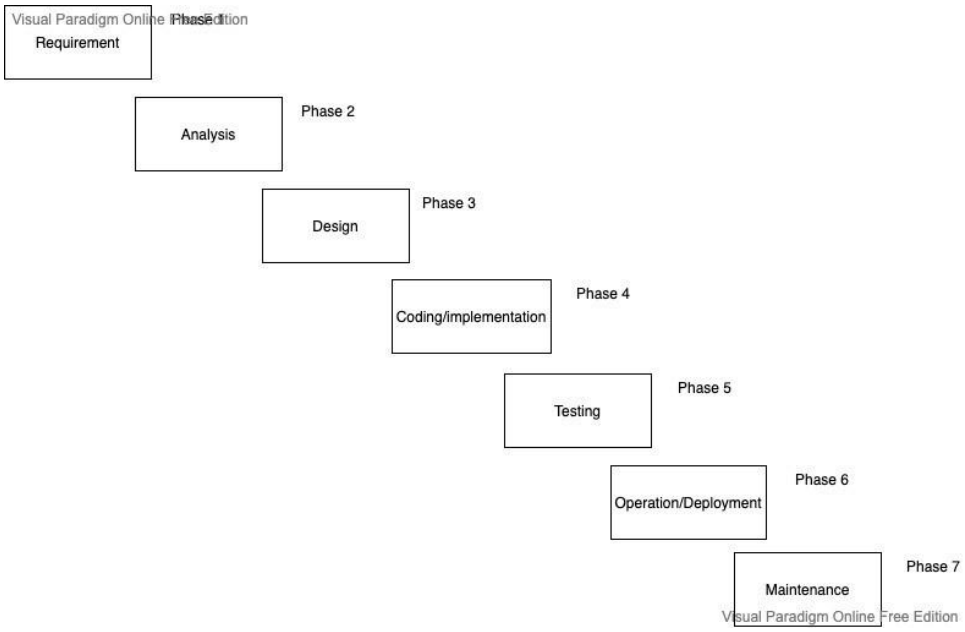
ASSIGNMENT – 03

The company KOA tries to develop a tool for another company. The tool should support business processes. The team of KOA applies the waterfall model. a) Name all phases, which are applied during the development and specify (1,2 sentences) the result of each phase. As the waterfall model is to restrict, the team of KOA tries to update the process to the V Model. b) Name the additional phases of the V Model and argue the pros.

A) WATERFALL PHASES:



- Requirement specification

All possible requirements of the system to be developed are documented in a requirement specification document

- Design

The system designed is prepared based on the requirements specified in the first phase

- Implementation

According to the design, the system is developed and tested for functionality

- Verification

The system is tested to be sure all units are functioning according to requirements

- Maintenance

The is the concluding phase where other problems that comes up will be fixed and managed.

B) V-MODEL ADDITIONAL PHASES:

The main difference and additional phases in the V model are that there is testing in each phase such as;

- Acceptance test
- System test
- Integration test
- Module test

PROS OF THE V-MODEL:

- It is a very disciplined model in which the individual phases are completed one after the other.
- The V-model is used for small projects where the project requirements are evident.
- This model focuses on verification and validation activities at the beginning of the life cycle.

The KOA company recognizes that they are not familiar with procedure models. You are the export. Assess the process models of the lecture by the following characteristic:

a) Size of the developer team

b) Complexity of the project

c) Known requirements

d) Change of requirements

e) Time to Market

f) Knowledge of IT (customer)

g) Average number of iteration

The V model is only suitable when the project is short and have clear requirements. It is not suitable for a large and complex project.

(a) Size of the developer team

The size of the developer team will be determined by the process model to be used.

The size of the development team shouldn't be more than 7

(b) Complexity of the project

To determine the complexity of a project, the following attributes have to be considered

1. Duration schedule
2. Cost of project
3. Risk
4. Technology readiness
5. Visibility
6. Authorization basis

(c) Known requirements

In XP user requirements can be expressed through stories and scenarios. A product owner is one whose job is to identify product features or requirements.

(d) Change of requirements

According to the lecture, changes can only be made in agile development methods. In plan driven development, plans are made before the start of the project and cannot be altered. In agile methods changes can be made without much rework.

(e) Time to Market

After the final development phase, the product can be marketed.

(f) Knowledge of IT (Customer)

One of the principles of agile method is customer involvement. A customer who is involved I the development processes and iterations will have the knowledge and understand the system.

(g) Average number of Iteration

Sprints are usually 2-4 weeks long. Iteration occurs within activities in plan - driven development. In agile development process, Iterations can be made in every phase. Extreme programming takes an extreme approach to iterative development. Different iterations can be made each day.