Software life Cycle model is a pictorial & diagrammatic representation of the Software life Cycle. A life Cycle model represents all the methods required to make a Software product Transit its life Cycle Stages. There are different phases involved in the Software Development process, including planning, requirements, design and prototyping Software development, documenting, testing, deployment and maintenance

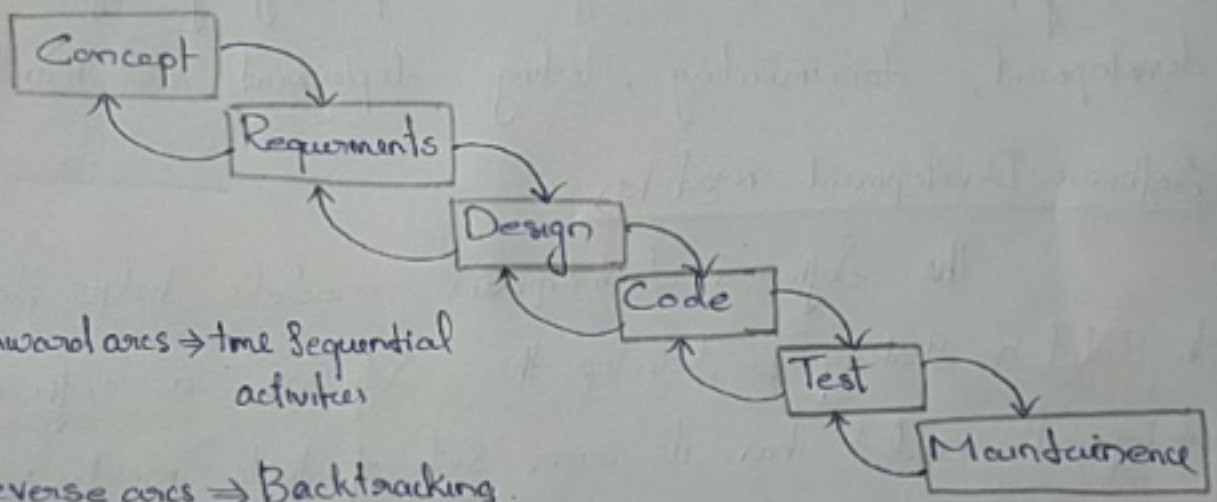
Software Development models.

The Software development models helps developers to Select a Strategy to develop the Software. a Software development model has its own Set of tools, methods and procedures, which are Expressed Clearly and defines Software development life Cycle. A few of Software development models as paradigms are defined as follows:

- Waterfall Model
- V-Model
- Spiral-Model

Waterfall Model

Waterfall model is the simplest model of s/w development paradigm. it says the all the phases of SDLC will function one after another in linear manner. when first phase is finished then only the second phase will start and so-on



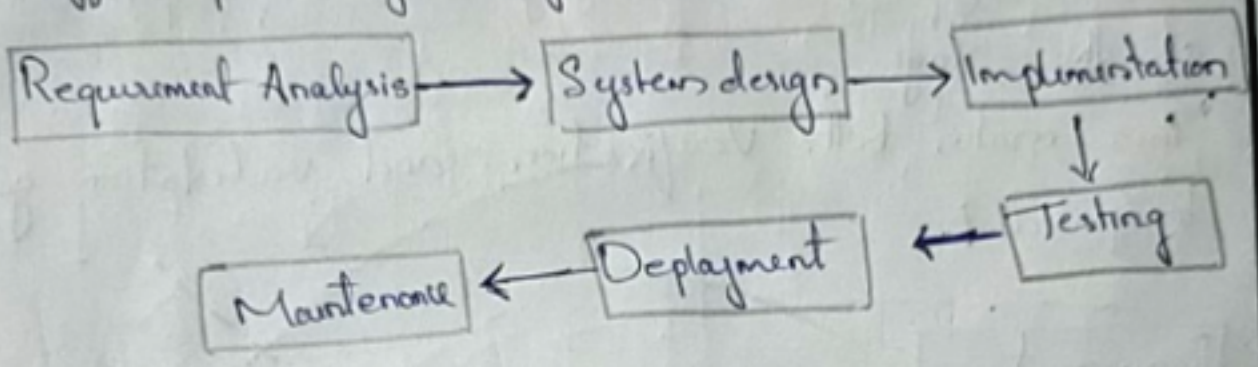
Forward arcs ⇒ time sequential activities

Reverse arcs ⇒ Backtracking

This is the predictive model used earlier. the model assumes that everything is carried out & taken place perfectly as planned in the previous stage. and there is no need to think about the past issues that may arise in the next phase this model does not work smoothly if there are some issues left at the previous step. the sequential nature of the model doesn't allow us go back & undo our actions.

This model is best suited when developers already have designed and developed similar software in the past and are aware of all its domains.

Different phases of waterfall model.



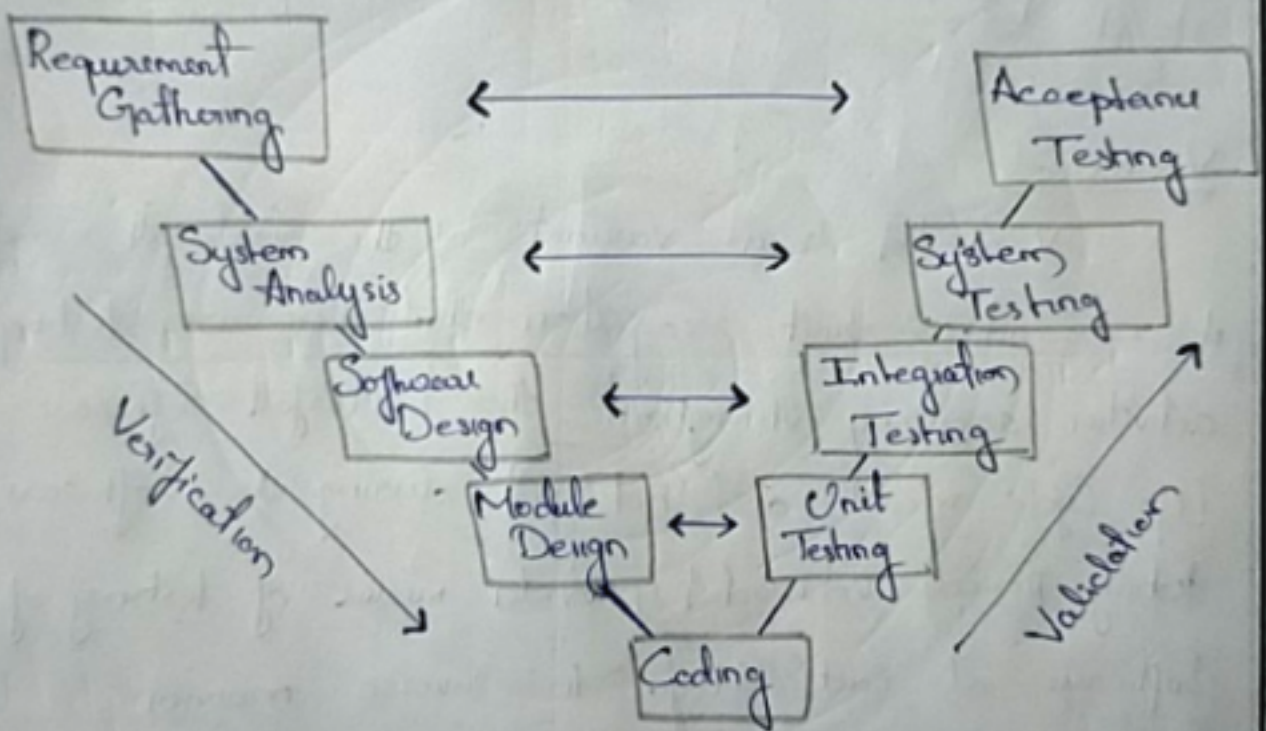
V- model

V-model is a variant of the waterfall model it represents a tacit recognition that there are testing activities occuring throughout the waterfall software life cycle model and not just during the software testing period. V-model provides means of testing of software at each stage in reverse manner.

At every stages, test plans & test cases are created to verify and validate the product according to the requirement of that stage for example, in requirement gathering stage the test team prepares all the test cases in corresp

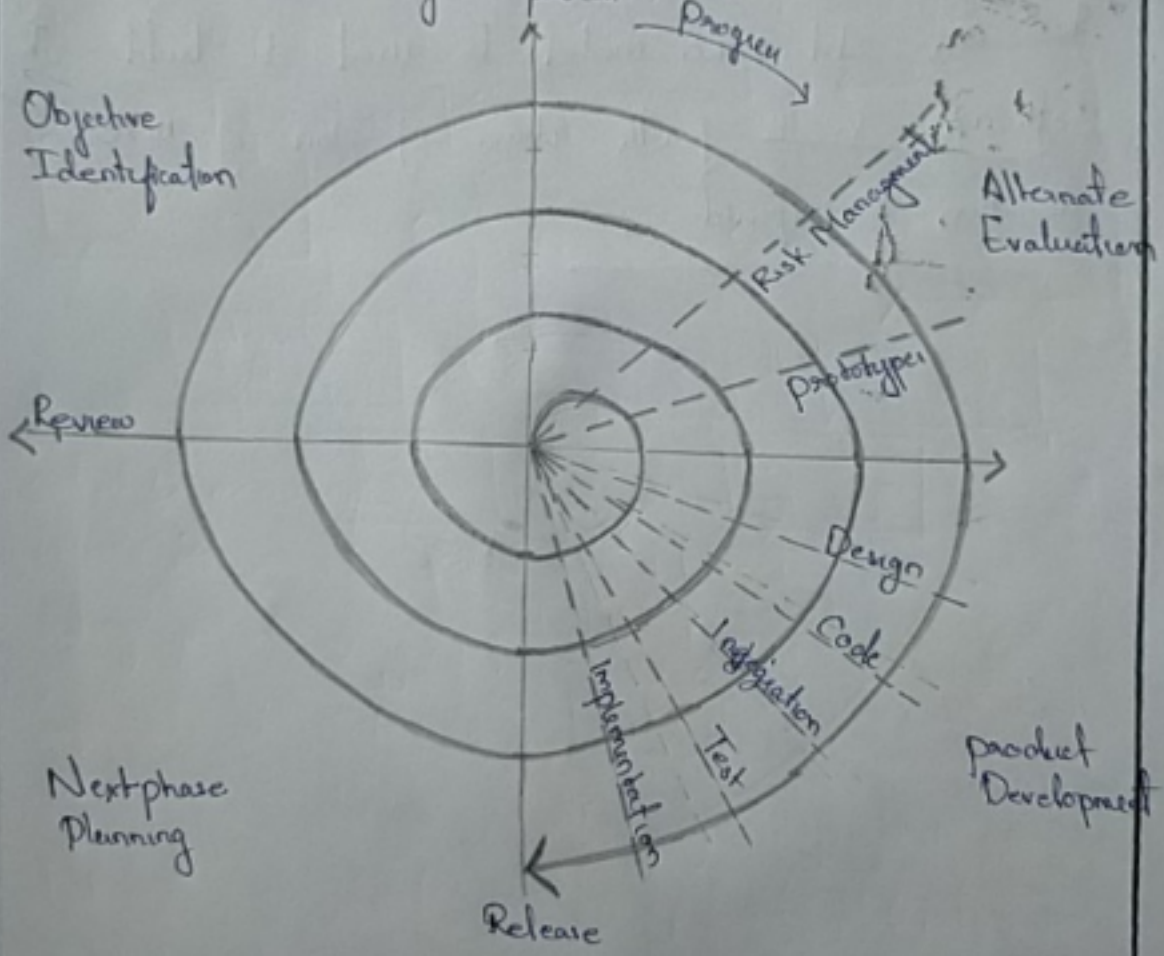
pedence to the requirements. Later, when the product is developed & is ready for testing, test cases of this stage verify for testing, test cases of this the Software against its validity towards requirements at this stage.

This makes both Verification and validation go in parallel.



Spiral model :

Spiral model is a combination of both, iterative model and one of the SDLC model. It can be seen as if you choose one SDLC model and combine it with cyclic process.



This model Considers risk, which often goes unnoticed by most other models. The model starts with determining Objectives and Constraints of the Software at the start of one Iteration. Next phase is of prototyping the Software. This includes risk analysis. Then one Std SDLC model is used to build the Software. In the fourth phase of plan of next iteration is prepared.