CSE470: Software Engineering

V Model

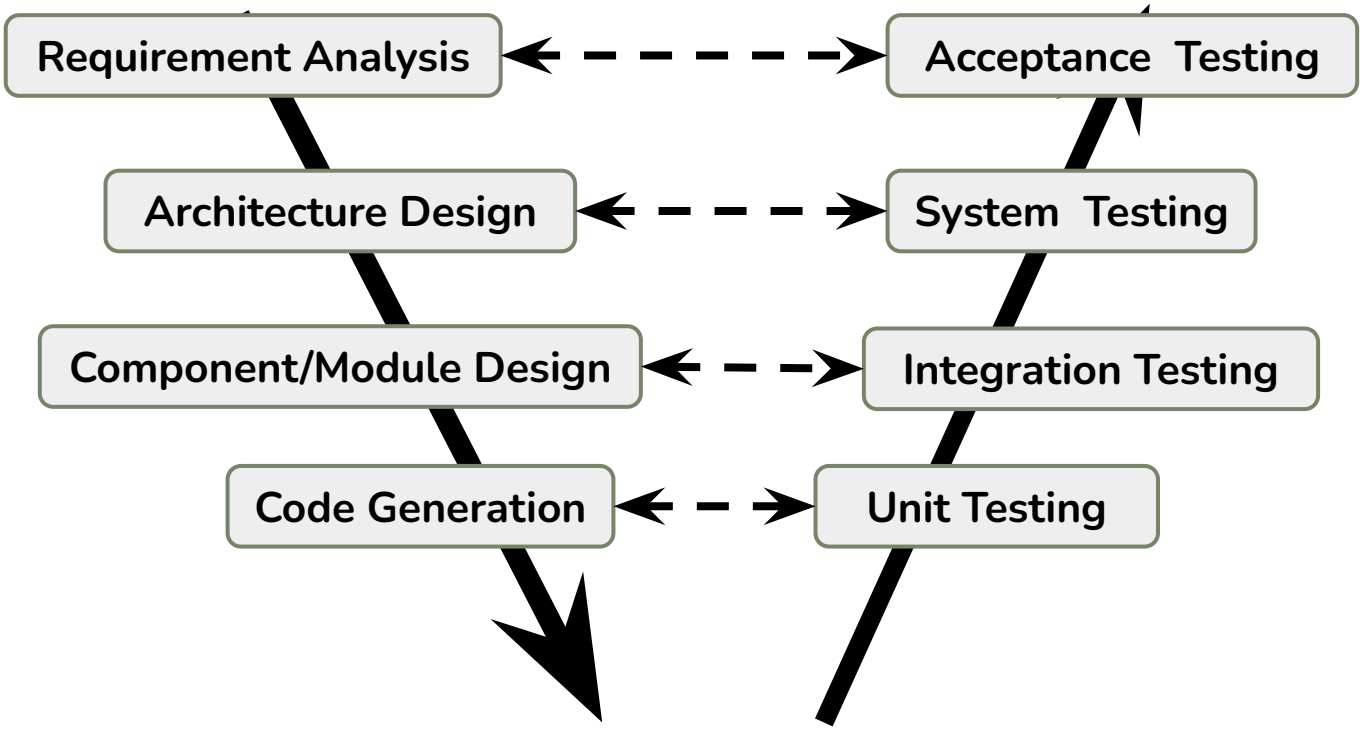
What is a V Model

A variation in the representation of the waterfall model is called the V-model.

V-model depicts the relationship of quality assurance actions to the actions associated with communication, modeling, and early construction activities.

It is an extension of the Waterfall model that provides earlier and detailed Software Testing

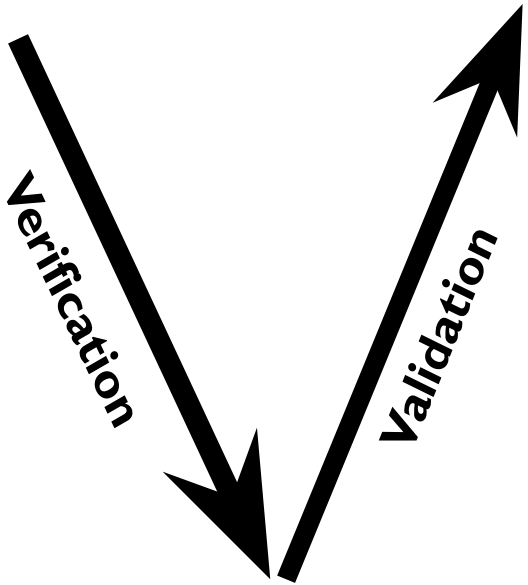
Steps of V Model



Verification - Validation

Building the product in the right way is called “Verification”.

Building the right product is called “Validation”.



Advantages of V Model

1. High importance on Testing
2. Early Bug Identification
3. Improved Quality Assurance (QA)
4. Test activities planned before testing
5. Saves time over waterfall, higher chance of success
6. Same advantages as Waterfall Model

Disadvantages of V Model

1. Difficult to incorporate Requirement changes
2. Workable software at the last step of the model
3. If a test fails, then the test document and code both needs to be updated
4. Not suitable for projects with unclear requirements
5. No step overlapping

When to use V Model

- Test heavy development
- Projects suitable for Waterfall model

Reference

1. Roger S Pressman, Roger Pressman,"Software Engineering: A Practitioner's Approach", McGraw-Hill, 7th edition, 2010.
2. https://www.geeksforgeeks.org/software-engineering-sdlc-v-model/