

UNIT 4

SYSTEM TESTING

Software testing: Software Verification Techniques

Verification and Validation is the process of investigating whether a software system satisfies specifications and standards and fulfills the required purpose. **Barry Boehm** described verification and validation as the following:

Verification: *Are we building the product right?*

Validation: *Are we building the right product?*

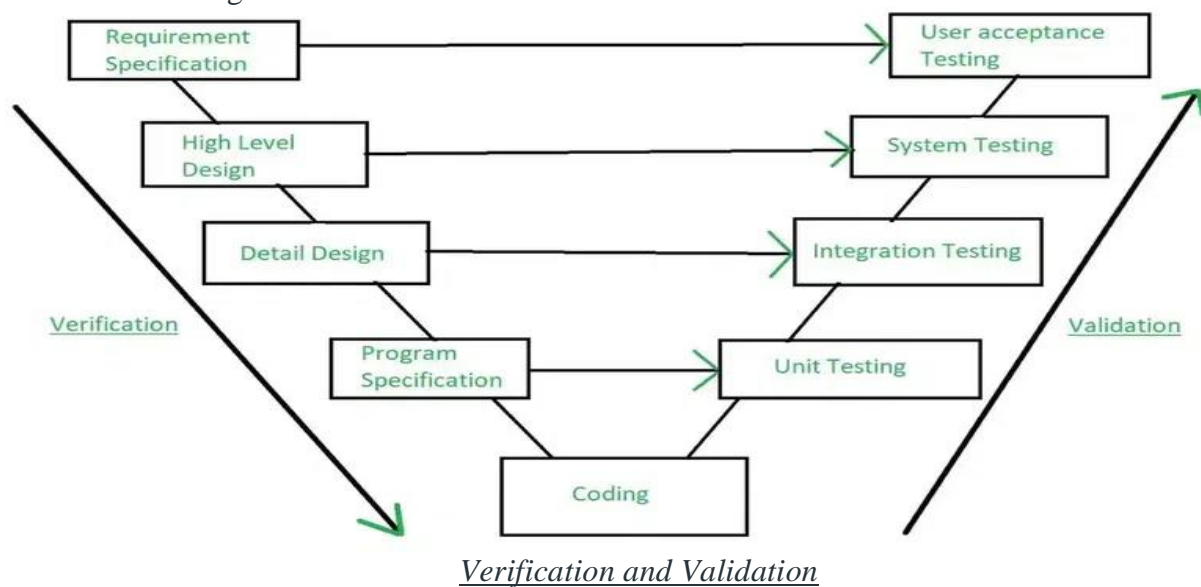
Verification

Verification is the process of checking that software achieves its goal without any bugs. It is the process to ensure whether the product that is developed is right or not. It verifies whether the developed product fulfills the requirements that we have. Verification is simply known as **Static Testing**.

Static Testing

Verification Testing is known as Static Testing and it can be simply termed as checking whether we are developing the right product or not and also whether our software is fulfilling the customer's requirement or not. Here are some of the activities that are involved in verification.

- Inspections
- Reviews
- Walkthroughs
- Desk-checking



Validation

Validation is the process of checking whether the software product is up to the mark or in other words product has high-level requirements. It is the process of checking the validation of the product i.e. it checks what we are developing is the right product. it is a validation of actual and expected products. Validation is simply known as **Dynamic Testing**.

Dynamic Testing

Validation Testing is known as Dynamic Testing in which we examine whether we have developed the product right or not and also about the business needs of the client. Here are some of the activities that are involved in Validation.

1. Black Box Testing
2. White Box Testing
3. Unit Testing
4. Integration Testing

