Verification and Validation

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

Verification: Are we building the product right?
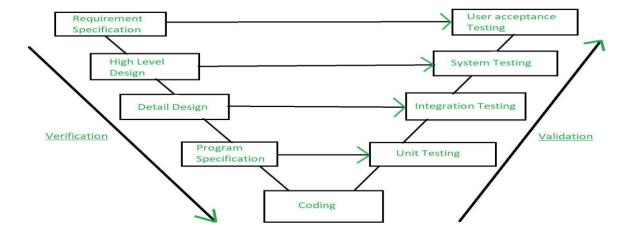**Validation:** Are we building the right product?

Verification: Verification is the process of checking that a 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 **Static Testing**. Activities involved in verification:

1. Inspections
2. Reviews
3. Walkthroughs
4. 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 product i.e. it checks what we are developing is the right product. it is validation of actual and expected product.
Validation is the **Dynamic Testing**. Activities involved in validation:

1. Black box testing
2. White box testing
3. Unit testing
4. Integration testing

Note: Verification is followed by Validation.