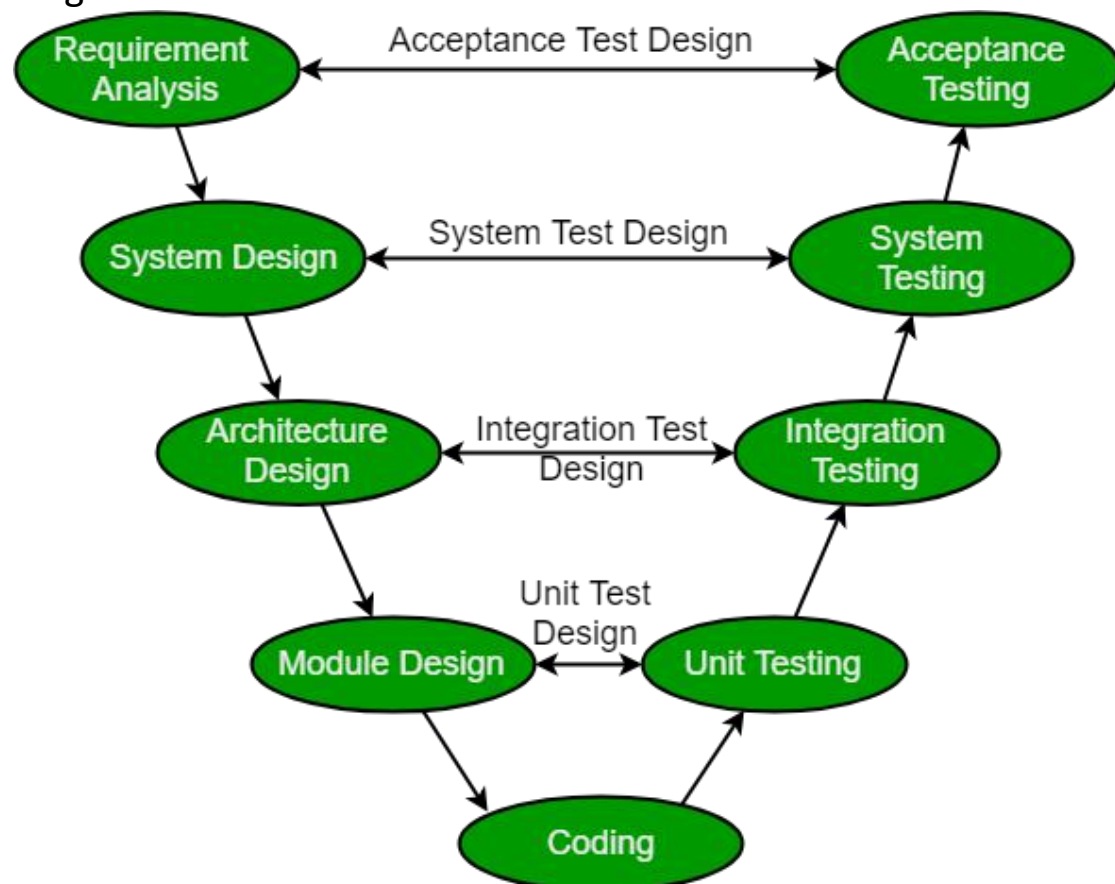


# SDLC

1. SDLC stands for software development life cycle.
2. It helps to develop a software in a systematic manner.
3. There are different SDLC models
  - A. Classical waterfall model
  - B. Iterative waterfall model
  - C. Spiral model
  - D. Incremental model
  - E. V-model
4. V-model is the one of the widely used for software development processes in the automotive industry.
5. V-model is also called as verification and validation model.
6. In V-model there is association of a testing phase for each corresponding development stage.



**Development phase:**

### **1. Requirement Analysis:**

This phase contains detailed communication with the customer to understand their requirements and expectations.

### **2. System Design:**

This phase contains the system design and the complete hardware required for developing product.

### **3. Architectural Design:**

System design is broken down further into modules taking up different functionalities. The data transfer and communication between the internal modules and with the other systems is clearly understood.

### **4. Module Design:**

In this phase detailed design of modules is specified.

## **Testing phases**

### **1. Unit Testing:**

Unit test plans are developed during module design phase. These unit test plans are executed to eliminate errors at unit level.

### **2. Integration Testing:**

In integration testing modules are combined and the system is tested. Integrating testing is performed on the Architectural design phase. This test verifies the communication of modules among themselves.

### **3. System Testing:**

System testing tests the complete application with its functionality, inter dependency and communication.

### **4. User Acceptance Testing:**

User acceptance testing verifies that the delivered system meets user's requirement and system is ready to use in real world.

