# Testing and Integration

Testing is the main phase of the development cycle which determines the reliability and functionality of the application. During testing phase every functional and non-functional requirement are tested with the set of data that represent the real-life scenario of the organization. There are mainly two types of testing. They are

1. White Box testing

White box testing can be defined as the testing done by developer to check if the operations inside the application are working as intended. White box testing are done by developer which if success indicates the successful workings of methods and functionalities. There are mainly two types of white box testing

1. Unit Testing

Unit testing is the type of testing done to check the functionality of the methods which is done right after the method is created to check if the functionality of the method is correct. Unit testing is done to check every method before it goes to production where it gets real life scenario data. Unit testing helps in development of program that is reliable from the core. Performing unit tests also enable us to apply test driven development

1. Instrumented Testing

Instrumented testing is the type of testing where the UI of the system is checked by suppling set of data that user supposedly enters in the UI. Instrumented testing helps check if visual components are working as intended and perform the desired tasks.

1. Blackbox testing

Blackbox testing is the type of Behavioral testing that is done to verify the behaviors of the application and to check if it is working as intended by developer for the users. During Blackbox testing user is supposed to check the activity of the application if it works right or not which is mostly invisible to the user using it from front end. Blackbox testing helps us identify missing or incorrect functions and also helps us find interface errors.

1. Integration Testing

Integration testing is the type of testing where individual units or components of the system are combined and tested as group. Integration helps find us faults between two units or objects communicating with each other to perform a task combinedly.

1. User Acceptance Training

User acceptance testing is the type of testing that helps us verify if users will actually like the UI of the product. User acceptance testing helps us identify ambiguous components of the system and modify it so every user can use it easily and comfortably.

1. Regression Testing

Regression testing is the type of testing where functional and non-functional features added later to fulfill the system requirements has not affected the code written before. Regression testing helps find out new updates has not affected program adversely.

# Integration

Integration can be defined as the process of putting tested application in the live environment and making it available to end users. After testing it is essential to find out if product got by end users is what they want and fulfills every functional and non-functional requirements of the project. Tannings to the end user is also provided in the integration testing so that user can use the product efficiently and reliably.