

#### Task 4.

In one or two sentences, highlight what the following types of testing try to accomplish:

- 1) Unit Testing
- 2) Integration Testing
- 3) Functional Testing
- 4) End-to-end Testing
- 5) Performance Testing
- 6) Usability Testing
- 7) Acceptance Testing
- 8) Beta Testing

Are you aware of any other type of testing that is important? If so, please briefly summarize what it tries to accomplish

- 1) Unit Testing  
Testing of an individual software component or module is termed as Unit Testing. It is typically done by the programmer and not by testers, as it requires a detailed knowledge of the internal program design and code. It may also require developing test driver modules or test harnesses.
- 2) Integration Testing  
Testing of all integrated modules to verify the combined functionality after integration is termed as Integration Testing. Modules are typically code modules, individual applications, client and server applications on a network, etc. This type of testing is especially relevant to client/server and distributed systems.
- 3) Functional Testing  
This type of testing ignores the internal parts and focuses only on the output to check if it is as per the requirement or not. It is a Black-box type testing geared to the functional requirements of an application.
- 4) End-to-end Testing  
Similar to system testing, End-to-end testing involves testing of a complete application environment in a situation that mimics real-world use, such as interacting with a database, using network communications, or interacting with other hardware, applications, or systems if appropriate.
- 5) Performance Testing  
This term is often used interchangeably with 'stress' and 'load' testing. Performance Testing is done to check whether the system meets the performance requirements. Different performance and load tools are used to do this testing.
- 6) Usability Testing  
Under Usability Testing, User-friendliness check is done. Application flow is tested to know if a new user can understand the application easily or not, Proper help documented if a user gets stuck at any point. Basically, system navigation is checked in this testing.
- 7) Acceptance Testing  
An acceptance test is performed by the client and verifies whether the end to end the flow of the system is as per the business requirements or not and if it is as per the needs of the end user. Client accepts the software only when all the features and functionalities work as expected.
- 8) Beta Testing  
Beta Testing is a formal type of software testing which is carried out by the customer. It is performed in the Real Environment before releasing the product to the market for the actual end users.

Beta testing is carried out to ensure that there are no major failures in the software or product and it satisfies the business requirements from an end-user perspective. Beta testing is successful when the customer accepts the software.

Usually, this testing is typically done by end-users or others. It is the final testing done before releasing an application for commercial purpose. Usually, the Beta version of the software or product released is limited to a certain number of users in a specific area.

So end user actually uses the software and shares the feedback to the company.

Company then takes necessary action before releasing the software to the worldwide.

Others:

Stress Testing:

This testing is done when a system is stressed beyond its specifications in order to check how and when it fails. This is performed under heavy load like putting large number beyond storage capacity, complex database queries, continuous input to the system or database load.

System Testing

Under System Testing technique, the entire system is tested as per the requirements. It is a Black-box type testing that is based on overall requirement specifications and covers all the combined parts of a system.