

ASSIGNMENT

Module 3 Context Based Testing

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Basic

B1. What is load testing?

Load Testing: Testing technique that puts demand on a system or device and measures its response. It is usually conducted by the performance engineers.

B2. What is stress Testing?

Stress Testing: Testing technique which evaluates a system or component at or beyond the limits of its specified requirements. It is usually conducted by the performance engineer

B3. What is Web Page?

Web page is a hypertext document provided by a website and displayed to a user in a web browser.

Intermediate

I1. How to work performance Testing?

- Identify the Test environment and tools. Identify the production environment, testing environment, and testing tools
- Define Acceptable Performance criteria
- Plan and Design Tests
- Prepare Test environment and Tools
- Run the performance tests
- Resolve and Retest

I2. When to used Usablity Testing?

- Testing technique which verifies the ease with which a user can learn to operate, prepare inputs for, and interpret outputs of a system or component. It is usually performed by end users. Usability testing can and should be conducted on the current iteration of a product before beginning any new design work, after you have begun the strategy work around a brand new site or app.

I3. What is the procedure for GUI Testing?

- **GUI Testing**
GUI testing involves checking the screens with the controls like menus, buttons, icons, and all types of bars – tool bar, menu bar, dialog boxes and windows etc.

Approach of GUI Testing

- **MANUAL BASED TESTING**
- Under this approach, graphical screens are checked manually by testers in conformance with the requirements stated in business requirements document.
- **RECORD AND REPLAY**
- GUI testing can be done using automation tools. This is done in 2 parts. During Record, test steps are captured into the automation tool. During playback, the recorded test steps are executed on the Application under Test. Example of such tools - QTP.
- **MODEL BASED TESTING**
- A model is a graphical description of system's behavior. It helps us to understand and predict the system behavior. Models help in a generation of efficient test cases using the system requirements.

Advanced

A1. Difference between load and stress

Load testing	Stress Testing
Test the system behaviour under normal workload conditions	Test the system behaviour under extreme conditions and is carried out till the system failure.
Load testing does not break the system	Stress testing tries to break the system by testing with overwhelming data or resources.
Huge numbers of users.	Too much users and too much data.
Load testing is performed to find out the upper limit of the system/application.	Stress testing is performed to find out the behaviour of the system under pressure.
Determines the operating capacity of a system or application.	Ensures the system security.

A2. Difference between Usability and GUI

GUI testing	Usability testing
It is used to test the frontend part of any application	It measures the extent of the friendliness of the user interface part and overall functioning of the software.

It focuses on the look and feel of an application	It focuses on the friendliness of an application
It assures the look and feel of an application by matching with standards and user requirements	It assures that the user should be comfortable to use any app by making its design easy.
In this, an application should be amazing in look whether it is east to use or not	In this, an application should be easy to use whether its appearance is up to the mark or not
The testing is performed on various platforms just to make sure its appearance will be perfect	It tests the app to checks its difficulty level.
Int this type of testing, we do not test the functionality of an app	In this type of testing, we test the functionality af an app to check that is it user friendly or not
It concerns the interface part of the software	It focuses on the product quality of software

A3. Described GUI Approches

GUI Testing is a software testing type that checks the Graphical User Interface of the Software. The purpose of Graphical User Interface (GUI) Testing is to ensure the functionalities of software application work as per specifications by checking screens and controls like menus, buttons, icon

Approach of GUI Testing

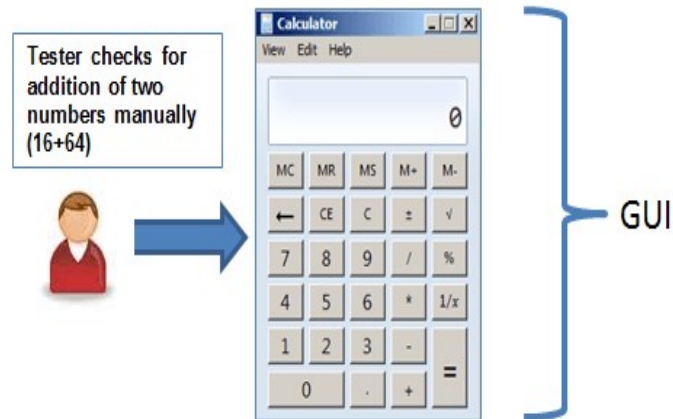
GUI Testing Techniques can be categorized into three parts:

MODEL BASED TESTING

A model is a graphical description of system's behavior. It helps us to understand and predict the system behavior. Models help in a generation of efficient test cases using the system requirements.

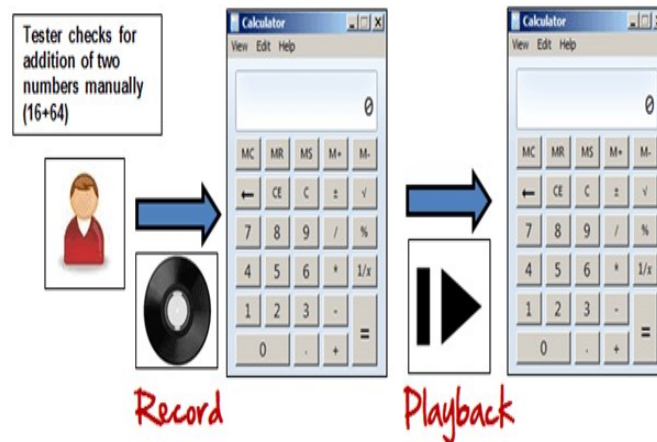
Manual Based Testing

Under this approach, graphical screens are checked manually by testers in conformance with the requirements stated in the business requirements document.

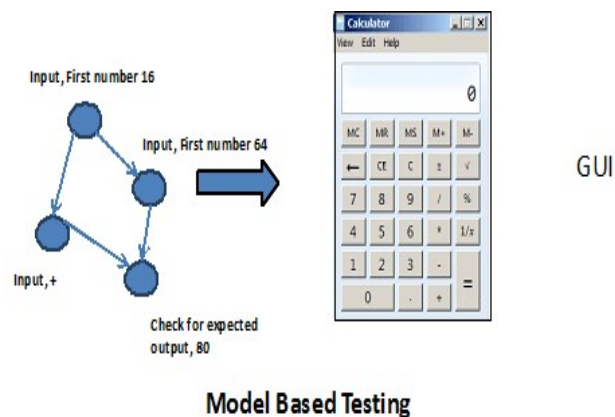


RECORD AND REPLAY

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Model based testing



A model is a graphical description of a system's behavior. It helps us to understand and predict the system behavior. Models help in a generation of efficient test cases using the system requirements. The following needs to be considered for this model based testing:

- Build the model
- Determine Inputs for the model
- Calculate the expected output for the model
- Run the tests
- Compare the actual output with the expected output
- A decision on further action on the model

Some of the modeling techniques from which test cases can be derived:

- Charts – Depicts the state of a system and checks the state after some input.
- Decision Tables – Tables used to determine results for each input applied

Model based testing is an evolving technique for generating test cases from the requirements. Its main advantage, compared to above two methods, is that it can determine undesirable states that your GUI can attain.