Module 2 assignment

# what is exploratory testing

The focus of exploratory testing is mare testing as a

“thinking” activity.

# what is traceability matrix.

To protect against changes, you should be able to trace back from every System

component to the original requirement that caused its presence.

## What is Integration testing?

Integration Testing is a level of the software testing process where individual units are combined and tested as a group. There are 2 types.

* + **Component Integration Testing**
  + **System Integration Testing**

## What determines the level of risk?

. A factor that could result in future

negative consequences; usually expressed as impact and Likelihood

**5• What is Alpha testing?**

Alpha testing is definitely performed and carried out at the developing organization’s

location with the involvement of developers

**6• What is beta testing?**

Beta testing is always performed at the time when software predictand project are marketed.

1. **What is component testing?**

Component Integration Testing: Testing performed to expose Defects in the

Interfaces and interaction between integrated components

**8• What is functional system testing?**

Functional System Testing: A requirement that specifies a function That a system or system component must perform

1. **What is Non-Functional Testing?**

Non-functional testing is a level of software testing that verifies non-functional aspects of the product, such as performs useability and stability testing

1. **What is GUI Testing?**

Graphical User Interface (GUI) testing is the process of testing the system’s GUI of the System under Test. 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

1. **What is Adhoc testing?**

Ad-hoc testing is a level of testing process in which without reference to the any test plan and document its unstructured unplanned and informal testing.

1. **What is load testing?**

Its a performance testing to check system behavior under load.

Testing an application under heavy loads, such as testing of a web site under a range of loads to determine at what point the system’s response time degrades or fail

1. **What is stress Testing?**

Stress testing is done to make sure that the system would not crash under crunch situations.

1. **What is white box testing and list the types of white box testing?**

White Box Testing: Testing based on an analysis of the Internal structure of the component or system.

(Structure-based testing technique is also known as ‘white

box’ or ‘glass-box’ testing technique because here the testers require knowledge of how the software is implemented, how it works.)

1. **What is black box testing? What are the different black box testing techniques?**

Black-box testing: Testing, either functional or non-functional, without reference to the internal structure of the component or System.

There are four specification-based or black-box

* + Equivalence partitioning

Aim is to treat groups of inputs as equivalent and to select one representative input to test them all

* + Boundary value analysis

Boundary value analysis is a methodology for designing test cases

that concentrates software testing effort on cases near the limits of valid ranges Boundary value analysis is a method which refines equivalence partitioning.

* + Decision tables

The techniques of equivalence partitioning and boundary value analysis are often applied to specific situations or inputs.

* + State transition testing

A back box test design technique in which test case design to execute valid and invalid state transition.

1. **Mention what are the categories of defects?**
   * **Functional Defects:**
   * **Logic Errors**
   * **Usability Defects:**
   * **User Interface Issues**
   * **Accessibility Issues:**
   * **Reliability Defects:**
   * **Fault Tolerance Issues:**
   * **Error Handling Problems:**
   * **Regression Defects:**
   * **Calculation Errors:**
   * **Performance Defects:**
   * **Speed Issues:**
   * **Scalability Issues:**.
   * **Security Defects**:
   * **Vulnerabilities:**
   * **Data Defects:**
   * **Data Corruption:**
   * **Data Integrity Issues**
   * **Documentation Defects:**

## 16 Mention what big bang testing is?

* In Big Bang integration testing all components or modules is integrated simultaneously, after which everything istested as a whole

## What is the purpose of exit criteria?

* + How do we know when to stop testing?
  + Run out of time?
  + Run out of budget?
  + The business tells you it went live last night!
  + Boss says stop?
  + All defects have been fixed?
  + When out exit criteria have been met?

## When should "Regression Testing" be performed?

* + Code Changes:
  + Integration of Code:
  + Bug Fixes:
  + System Upgrades or Patches:
  + Environment Changes:
  + Automated Builds:
  + Periodically in the Development Cycle:
  + Before Release:

**19 What is 7 key principles? Explain in detail?**

* Testing shows presence of Defects

Testing can show that defects are present, but cannot prove that there are no defects.

We test to find Faults

As we find more defects, t

### Exhaustive Testing is Impossible.

Testing everything including all combinations of inputs and preconditions is not possible.

### Early Testing.

Testing activities should start as early as possible in the software

or system development life cycle, and should be focused on defined objectives.

### Defect Clustering.

A small number of modules contain most of the defects discovered during pre- release testing, or are responsible for themost operational failures.

* **The Pesticide Paradox.**

If the same tests are repeated overland over again Eventually the same set of test cases will no longer find any new defects.

To overcome this “pesticide paradox”, the test cases need to be regularly reviewed and revised, and new and different tests needto be written to exercise different parts of the software or system topotentially

## Testing is Context Dependent.

Testing is done differently in different contexts. Different kinds of sites are tested differently.

For example

Safety– critical software is tested differently from an E-commerce site.

## Absence of Errors Fallacy

* + If the system built is unusable and does not fulfill the user’s needs and Expectations then finding and fixing defects does not help.

# Difference between QA v/s QC

|  |  |
| --- | --- |
| * focus on process and procedure rather than conducting actuall testing on the system | * Focuses on actual testing by executing Software with intend to identify bug/defect through implementation of procedures and process. |
| * Process oriented activities. | * Product oriented activities. |
| * Preventive activities. | * It is a corrective process. |
| * It is a subset of Software Test   Life Cycle (STLC). | * QC can be considered as the subset of Quality Assurance. |

1. **Difference between Smoke and Sanity?**

|  |  |
| --- | --- |
| * **smoke** | * **sanity** |
| * Smoke Testing is performed after software build to ascertain that the critical functionalities of the program is working fine. | * After receiving a software build, with minor changes in code, or functionality,   Sanity testing is performed to ascertain that the bugs have been fixed and no further issues are introduced due to these changes |
| * It is executed "before" any detailed functional or regression tests are   executed on the software build. | * The goal is to determine that the proposed functionality works roughly as expected. |
| * In Smoke Testing, the test cases chosen cover the most important   functionality or component of the system. | * If sanity test fails, the build is rejected to save the time and costs involved in a more rigorous testing. |

## Difference between verification and Validation

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| --- | --- |
| **verification** | **Validation** |
| 1. verifying documents, design, code 2. Not involve executing code. 3. Usually documents and file are check by people 4. Uses methods like inspections, do | VALIDATION (have we built the right software)   1. Validating and testing of the actual product done by series of dynamic mechanism. 2. Execution of the code. |

|  |  |
| --- | --- |
| reviews, decision making etc.   1. Check if the software meets the specification. 2. It can catch errors that validation cannot catch and it is low level exercise. 3. It involves the requirements specification, application, software architecture, high level, complete design, and database design etc. | 1. Execution of program using computer. 2. Uses methods in testing the product. Ex. black box functional testing, gray box testing etc. 3. Check if the software meets the customer expectations and requirements or their satisfaction. 4. Can catch errors that verification cannot catch and it is high level of exercise. 5. Target is the actual product. A module, unit, effective final product. |

1. **Explain types of Performance testing.**

Load Testing:

* + Objective: Determine the system's behavior under expected load conditions.
  + Method: Gradually increase the number of concurrent users or transactions until the system reaches its maximum capacity.
  + Stress Testing:
  + Objective: Evaluate the system's stability and robustness under extreme conditions.
  + Endurance Testing (Soak Testing):
  + Objective: Assess system performance over an extended period under normal or
  + Focus: Ensure the system can handle continuous usage without deterioration in performance.
  + Volume Testing:
  + Objective: Evaluate the system's ability to handle a large volume of data.
  + Scalability Testing:
  + Objective: Determine the system's ability to scale up or down in terms of user load, transactions, or data volume.
  + Isolation Testing:
  + Objective: Evaluate the performance of individual components or modules in isolation.
  + Resilience Testing:
  + Objective: Assess the system's ability to recover from failures or disruptions.

**24What is Error, Defect, Bug and failure?**

* + A mistake in coding is called error
  + error found by tester is called defect,
  + defect accepted by development team then it is called bug,
  + build does not meet the requirements then it is failure

## 25.Difference between Priority and Severity

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| --- | --- |
| * Severity * Defect Severity is specified as the degree of impact that a defect has on the operation of the product * Severity status is established on the technical aspect of the product. * Severity means the seriousness of the defect in the product functionality. * The test engineer determines the severity level of the defect. * It is driven by functionality | * Priority * Defect Priority has specified the order in which the developer should fix a defect. * Priority of defects is decided in discussion with the manager/client. * Priority means how soon the bug should be fixed. * It is driven by business value. * Priority status is established on customer requirements. |
|  |  |

**26 What is Bug Life Cycle?**

The bug life cycle, also known as the defect life cycle, describes the stages that a software bug

goes through from its identification to its resolution. The bug life cycle helps in managing and

tracking the progress of bug fixes and ensures that the development

## Explain the difference between Functional testing and Non Functional testing

**Function testing**

* + Its execute first.
* Manual or automation tools can be effect for function testing.
* Buisness requirment is input for function testing.
* Easy to do manual testing.

## Types of function testing .

1. unit testing
2. Smoke testing
3. Sanity testing

**Non Function testing**

* + Its execute after function testing
  + Using tools will be effective fort this testing
  + Performance parameter like speed ,scability are input for this non function testing.

Types of function testing .

1. performance
2. Load
3. security
4. **To create HLR & Test Case of only first page (Instagram , Facebook) Login Page**

**1) Instagram**

**2) Facebook**

## 29 What is the difference between the STLC (Software Testing Life Cycle) and SDLC (Software Development Life Cycle)?

|  |  |
| --- | --- |
| SDLC | STLC |
| * STLC is related to software testing. | * The SDLC is primarily concerned with software development. |
| * STLC fewer people are involved. | * SDLC a more people involved in all processes, (number of developers). |
| * STLC ensures that anything we produce meets customer needs and that the products are of high quality. | * ​ * The SDLC ensures that we are building the correct thing in the correct manner. |
| * STLC is a testing life cycle. | * SDLC is a development life cycle. |
| * STLC is concerned with both the development and testing processes, but it is primarily concerned with the testing process. | * Software development life cycle assures that we deliver high quality software which is as per client needs. |

1. **What is the difference between test scenarios, test cases, and test script?**

|  |  |  |
| --- | --- | --- |
| Test Scenario | Test Case | Test Script   * is a set of instructions to test an app automatically * Is mostly derived from test Cases * Helps to test specific things repeatedly * is focused on the expected result * Requires less time for testing but more resources for scripts creating and updating * Includes different commands to develop a script |
| * Is any functionality that can be Insted * is derived from test artifacts like Business Requirement Specification (BRS) and Software Requirement Specification (SRS). | * is a set of actions executed to verify   particular features o functionality   * s mostly delved from test   scenarios |
| * Helps test the end- to-end functionality in an Agile way | * Helps in exhaustive testing on an app |
| * Is more focused on what to test | * Is focused on what to lest and how to test |
| * Takes less time and fewer | * Requires more resources and time. |
| * resources to create |  |
| * Includes an end-to- end functionality to be tested | * Includes test steps, data expected results for testing. |



1. **Explain what Test Plan is? What is the information that should be covered**.

A Test Plan is a comprehensive document that outlines the overall approach, scope, resources, schedule, and activities required for testing a particular system, application, or software.

Test Scope:

In-scope and out-of-scope items for testing.

Features, functionalities, and modules that will be tested. Test Objectives:

Clear and measurable goals that the testing effort aims to achieve. Test Strategy:

High-level approach to testing, including methodologies, techniques, and testing levels (e.g., unit testing, integration testing, system testing, acceptance testing).

Test Environment:

Description of the testing environment, including hardware, software, network configurations, and any other dependencies.

Configuration management and version control details. Test Entry and Exit Criteria:

Criteria that must be met for testing to begin (entry criteria) and for testing to be considered complete (exit criteria).

Test Deliverables:

List of documents and artifacts that will be produced as part of the testing process (e.g., test cases, test scripts, test reports).

Test Schedule:

Timeline for the testing activities, including start and end dates for each phase of testing.

Resource Planning:

Roles and responsibilities of team members involved in testing. Hardware, software, and human resources required for testing. Test Execution Plan:

Details on how test cases will be executed, including the order, dependencies, and any specific conditions.

Test Data:

Requirements and strategies for creating, managing, and using test data. Risks and Contingencies:

Identification of potential risks that may impact the testing process. Strategies and contingency plans for mitigating risks.

Defect Management:

Procedures for reporting, tracking, and managing defects or issues discovered during testing.

Approvals:

Sign-offs and approvals required at various stages of the testing process. References:

Any additional reference materials, standards, or guidelines that the testing team should follow.

## What is priority?

In the context of software testing and project management, "priority" refers to the relative importance or significance assigned to a particular task, feature, or defect. It is a way of determining the order in which work should be addressed based on its importance to the overall project goals.

## What is severity?

Severity, in the context of software testing and defect management, refers to the impact or degree of harm that a defect or issue can cause to the system's functionality. It is a measure of how serious or critical a particular problem is in the context of the overall system or application. Severity is independent of the priority assigned to the defect.

## Bug categories are…

Bug categories, also known as defect categories, are classifications used to categorize and organize different types of bugs or defects identified during software testing.

process, here are some common bug categories:

Functional Bugs:

These bugs are related to the incorrect behavior of a function or feature. They may include issues with calculations, data processing, or the overall functionality of a particular component.

Interface Bugs:

Bugs that occur at the interface level, involving the interactions between different modules or components. This can include issues with data exchange, communication protocols, or integration points.

Performance Bugs:

Bugs related to the performance of the software, such as slow response times, resource utilization problems, or bottlenecks that impact the system's efficiency.

Compatibility Bugs:

Issues that arise when the software behaves differently on various platforms, browsers, or operating systems. Compatibility bugs can affect the user experience on different devices.

Usability Bugs:

Bugs that impact the overall user experience, including issues with the user interface, navigation, accessibility, and other elements that affect how easily users can interact with the software.

Security Bugs:

Bugs that pose security risks, such as vulnerabilities, unauthorized access points, or other weaknesses that could be exploited by malicious entities.

Data Bugs:

Bugs related to incorrect data handling, storage, retrieval, or processing. These bugs may lead to data corruption, loss, or inaccuracies.

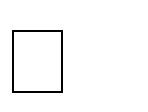
Installation Bugs:

Bugs that occur during the installation or uninstallation process of the software. This may include issues with configuration, file placement, or system requirements.

Regression Bugs:

Bugs that occur when a new version of the software introduces issues that were not present in the previous version. These bugs may result from code changes or updates.



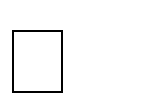
1. **Advantage of Bugzila. **

Bugzilla is an open-source bug tracking system that provides several advantages for software development and quality assurance processes. Here are some key advantages of using Bugzilla:

* + **Customization and Flexibility:**
  + **Web-Based Interface:**
  + **Comprehensive Search and Reporting:**
  + **Email Notifications and Alerts**:

1. **Difference between priority and priority**

|  |  |
| --- | --- |
| * Priority * Defect Severity is specified as the degree of impact that a defect has on the operation of the product. * Severity means the seriousness of the defect in the product functionality. * The test engineer determines the severity level of the defect. * It is driven by functionality. * Severity status is established on the technical aspect of the product. * ​ | * priority * Defect Priority has specified the order in which the developer should fix a defect. * Priority means how soon the bug should be fixed. * Priority of defects is decided in discussion with the manager/client. * It is driven by business value. * Priority status is established on customer requirements. |

1. **What are the different Methodologies in Agile Development Model? ** Agile is a software development approach that emphasizes flexibility, collaboration, and customer satisfaction.

**Scrum**:

Scrum is an agile development model concertrains particularly on how to menage tasks within tream based development environment

**Kanban**:

Kanban is very popular frame work for development in the agile software development mythology

It provides to transparent wat to visualizing to task and work capacity of the team

**Extreme Programming (XP):**

Key Characteristics:

Emphasizes technical excellence and frequent releases.

Pair programming (two developers working together at one workstation).

**Feature-Driven Development (FDD):**

Key Characteristics:

Emphasizes modeling and feature-centric development.

Develops a feature list, and each feature is a short, time-boxed project.

**Lean Software Development**:

Key Characteristics:

Based on lean manufacturing principles. Focuses on delivering value to the customer.

**Dynamic Systems Development Method (DSDM):**

Key Characteristics:

Emphasizes user involvement throughout the project. Time-boxed and incremental development.

**Crystal:**

Key Characteristics:

Adaptable and lightweight methodology.

Tailored to the specific characteristics of a project.

**Adaptive Software Development (ASD):**

Key Characteristics:

Emphasizes continuous adaptation to changing circumstances.

**38 Explain the difference between Authorization and Authentication in Web testing.What are the common problems faced in Web testing?**

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| --- | --- |
| * **Authentication** * **I**t determines whether users are who they * are claiming to be * Requests the user to validate their * credentials that could be present in the formm of passwords, PIN codes, voice or other biometrics, etc. | * **Authorization** * It determines the access that should be given or denied to an employee/user * Determines whether the user is allowed access to a resource based on the work policies * It is done after the users successfully authenticate themselves * The data is moved through |

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| --- | --- |
| * It is done before authorization * The data is moved through data tokens * Authentication is visible to the user * This process is changeable by the user * Authentication finds out if the person is a user or not | access tokens   * Authorization is not visible to the user * It is not changeable by the user * It determines the permissions that the user |

1. **Write a Scenario of Pen**

|  |  |
| --- | --- |
| Positive | Negative |
| * Verify the type of pen, whether it is a ball pen, gel pen and ink pen. | * en holding is difficult because of not proper designed |

|  |  |
| --- | --- |
| * ​ * verify that the pen is able to write in different paper. * verify that the pen writes smothly in * light and hard pressure verify the weight of pen it should be light weight to write properly. * verify the pen have cap or not. * verify the color of the ink. * verify if the pen's ink should not leak at higher altitudes. * verify if the text writeen by a pen is * erasable or not verify that the pen grip is comfortable or not * verify that the pen parts fit together * securly after reassemble. * verify that ink not dries on paper after some time * check the visibility of pen ink on bottom of light and on dark-colored paper. | * if pen point not made then how we write. sometime pen weight is heavy so is difficult to * write * sometime pen grip is not there so we don't * write proper * sometime pen refile is empty so we can't write. sometime pen is useless because pen ink is overflow sometime. * if we throw the pen the pointer of pen is broken then the pen useless. sometime pen stop between write because ink * of pen is cold in winter * sometime pen is not useful because some * types of pen not change the refile. * sometime pen in dry if not used for a while. some pen are harmful for the environment like plastic pen etc. * at some plastic pens can easily break in pockets or bags. * pen caps be dangerous for small children because the |

|  |  |
| --- | --- |
| * check the opecity of the ink. | cap of pen is too small and is swallow by the child. |
| * verify that text written by pen should not get faded before some time | * some inks don's flow well in extreme cold ink leaks sometime spoil some document and clothes. |
| * verify the text written by the pen is * waterproof or not | * if the cap is left off the link can dry out many pens don't show ink levels, so they can run out un expectedly. |
| * verify that the mechanism of refill the * pen is easy to operate. | * some pens don't write good at high altitudes * some times inks smudging can ruin written work ink quality |
| * verify if pen can support multiple refils or not |  |
| * verify that the user of gel pan can easily |  |
| * change the refile easily. |  |
| * type of refile or not. |  |
| * verify that the pen we use it's change |  |
| * verify that the pen clip can hold the pe |  |
| * on pocket or not |  |

# Write a Scenario of Pen Stand

|  |  |
| --- | --- |
| * Positive | * Negitive * Verify the functioning of a pen at extreme temperatures – |

|  |  |
| --- | --- |
| * Verify the type of pen, whether it is a ballpoint pen, ink pen, or gel pen. * Verify that the user is able to write clearly over different types of papers. * Verify if the pen is with a cap or without a cap. * Verify the color of the ink on the pen. * Check the odor of the pen’s ink on writing over a surface. * Verify the surfaces over which the pen is able to write smoothly apart from paper e.g. cardboard, rubber surface, etc. * Check that the pen’s ink should not leak in case it is tilted upside down. * Verify if the pen’s ink should not leak at higher altitudes. * Verify if the text written by the pen is erasable or not. * Verify the strength of the pen’s outer body. It should not be easily breakable. * Verify that text written by pen should not get faded before a certain time as mentioned in the specification. * Check if the text written by the pen is waterproof or not. | much higher and lower than room temperature.   * Verify the functioning of a pen at extreme altitude. * Check the functioning of a pen at zero gravity. * Verify the functioning of the pen by applying extreme pressure. * Verify the effect of oil and other liquids on the text written with a pen. * Check if the user is able to write with a pen when used against gravity i.e. upside down. * Verify the functioning of a pen when a user tries to write on unsupported surfaces like glass, plastic, wood, etc. * Verify if the pen works normally or not when used after immersing in water or any other liquid for some period of time. * Verify that the text written by the pen should have consistent ink flow without leaving any blob. * Check the functioning of the pen by applying normal |

|  |  |
| --- | --- |
|  | pressure during writing. |
| * Verify that the user is able to write normally by tilting the pen at a certain angle instead of keeping it straight while writing. * Check the grip of the pen, and whether it provides adequate friction for the user to comfortably grip the pen. | * Check the weight of the pen. It should be as per the specifications. In case not mentioned in the specifications, the weight should not be too heavy to impact its smooth operation. |
| * Verify if the pen can support multiple refills or not. |  |

1. **Write a Scenario of Door**

|  |  |
| --- | --- |
| * positive test scenario * verify the type of doors like single door, bi- * folded door, double door. * verify if the door opens inwards and * outwards * verity door's dimension as per requirement. * verify the matireal of door whether it is wooden, iron, fiber etc * verify the height of the door is proper or * door | * negative test scenario * It must be strong, otherwise its broken by thief. * Its handles or locking system is not broken, otherwise not lock properly. * verify if digital locking system not working so we can't open the door * verify if biometric system not working so we * can't open the door the wooden door is swelled in raininy season * so sometimes door stuck * iron door is corroded in rainy season. due to moisture the |

|  |  |
| --- | --- |
| * verify the width of the door is proper or not | door panel is bent or twisted. |
| * verify the color of the door is specified. | * The handle or knob moves or rotates more than it should because the handle of door in not fit properly |
| * verify the position of hinges of the door | * the door's paint ar finish in coming off in rainy season |
| * verify the quality of hinges of the door | * physical damage to door's surface sometimes |
| * verify the strength of hinges of the door | * it's dented or scratched because of smoothing |
| * verify the type of locks whether it's | * hit by door |
| * simple, digital, bio-matric verify that the door have both side locking | * sometime door sticks when opening or closing because of not proper installation |
| * system or not | * For doors that are supposed to be fire- |
| * verify that the door have stopper or not. verify that the door have a spring or not to * automatic closing the door | * rated, because it's help in fire condition Rot in the door frame because the bottom the door jamb is the place where water is most likely to pool |
| * verify the amount of force required to open and close then door. * verify that door have sticky system on wall verify that door have a bottom side * stopping system for keeping door open verify the wooden | * cracks in doors during the humid months. Sometime door frame is splits because one side of wooden door frame dries out * the door dose not adequately block sound. the door is sticks when opening and closing is likely cause by loose hinges |

|  |  |
| --- | --- |
| door has polished perfect |  |
| or not   * verify that the metal door is properly finished | * sometimes door loose or missing hardware like stripped screws or inferior quality. Improper threshold in door because of poor installation |
| * verify that painting or design on door. | * door is discolored because of uv exposure sometimes water staining, after ages |

1. **Write a Scenario of ATM**

|  |  |
| --- | --- |
| * **positive** | * **Negative** |
| * verify the tape of atm machine whether it's touch screen or keypad or truth | * sometime ate machine nut working due to power |
| * verifyt that the am machine properly inserting a valid cant or not | * sometime atm machine due to network connectivity * problems |
| * verify that the atm machine accept it different Banking card or not | * some time case dispenser of atm in stuck due to |
| * verify that the atm machine connected with the cable or will enfyn if the card is not inserted that is no option for continue от естет | * physical obstruction * sometime ate machine not accepted valid due to funtionalty error |
| * verify that the button of atm working properly or not | * sometime atm machine show income account |
| * verifyy that the touch of aim machine worting smooth or nat | * balance stue to software and database error |

|  |  |
| --- | --- |
| * verify that there is option for chossing different language. | * Sometime atm machine touchscreen not working and unresponsiveness due to hardware issue and display |
| * verify that there is an option to enter the in number | * sometime key patte button of atm machine t |
| * verify that them in limit number of attempt to enter the number * heck the pin is displayed in masked form. | * warning due to testinal sometime atm machine not give proper print of |
| * verify that the user is attend to enter different account type option like saving of current   account | * receipt because of receipt printer in failure sometime atm machine not the receipt of |
| * Verify that the answer is asked to enter different option to withdrawal | * withdrawal because of paper jam in redirect printer sometime pie pad of atm machine is nut showing |
| * heck balance or mini statement | * number of pad properly because of poor quality alm machine not selected language properly it's result |
| * heck that the user get same number of amount that i enter by m verify that the user ale- wed to enter amount in multiple Be-nominations as   per require | * in customers contingent difficulties when sing atm machine |
| * verify that the weer not withdraw more amount than the total available balance | * Arm machine cash case settel not lock securely * due to |
| * verify that there is option to get transaction details in panted form, | * atm machine not clean properly due to lack of |
| * verify that the outer session timeout is working | * in regular maintenance |

|  |  |
| --- | --- |
|  | * improper maintenance |
| * Verify that there is an of transaction amount on daily basis verify if the atm machine have no money su it's show anti-per message | * Sometime atm machine software update can Introduce bugs and glitches * sometime atm amputated invalid and expire card |
|  | * sometime user card details can show after wer the card |
|  | * l atm machine not show proper out of * money massage due to improper functionality machine finds wrong pin due to software and database |
|  | * atm machine accepted less then 100 amount due to |
|  | * software atm machine not have transitionally basis |



43 **When to used Usability Testing?**

Usability testing should be incorporated into the software development lifecycle at various

stages to ensure that a product is user-friendly, intuitive, and meets the needs of its intended users.

* Early Design Phase:

Usability testing can be conducted on low-fidelity prototypes to gather initial feedback on the basic design and user interactions.

* **Mid-Development Phase:**

Iterative Testing: Conduct usability tests during development iterations to address and refine specific features or components.

Pre-Launch Phase:

Beta Testing: Before a public release, usability testing in a beta environment can uncover issues with a larger user base and diverse usage scenarios.

* **Post-Launch Phase**:

Ongoing Monitoring: Continuously monitor user feedback and behavior after the product is launched to identify and address emerging usability issues.

* **Redesign or Major Updates:**

Significant Changes: When making substantial changes to the product, conduct

usability testing to ensure that users can easily adapt to the new features or interface.

* **Usability Issues Identification:**

Task-Specific Testing: Focus usability testing on specific tasks or user journeys

to identify issues related to those activities.

* **Competitive Analysis:**

Comparative Usability Testing: Evaluate the usability of your product against competitors to identify areas for improvement and competitive advantages.

## What is the procedure for GUI Testing?

GUI testing is a type of software testing that focuses on verifying whether the graphical interface of a software application is functioning correctly and meeting

the specified requirements.

* + **Understanding Requirements:**
    1. Test Planning:
    2. Environment Setup:
    3. Functional Testing:
    4. Layout and Design Consistency:
    5. Compatibility Testing:
    6. Error Handling:
    7. Performance Testing:
    8. Usability Testing:
    9. Accessibility Testing:
    10. Documentation and Reporting:
    11. Regression Testing:

1. Write a scenario of Microwave Oven

|  |  |
| --- | --- |
| * **Positive** | * **Negative** |
| * verify the dimension of the oven as per required | * sometime oven not heating food properly due less power supply |
| * verify that the ovan material is good | * plate of the ovan is not spinning properly due to |
| * verify that the ovan heat food properly verify that the oven head food within spacefied time. | * motor issue or power issue verify that the plate of the oven is not brocket due to over heat sometime oven is not turn |
| * check the oven functioning at maximum temperature. | * on due to pluging error microwave door not closed properly due to hinges of doors |
| * verify the oven functioning at minimum temperature * verify that the plate speed of the oven in optimal. | * microwave door not opend somthely due to hinges of doors |
| * verify that the plate speed of the oven in optimal and not to high to spill the food kept over it | * microwave oven not stop running if timers runs out because of system error oven touch pad is not working proper because of un responsive button |
| * verify the the oven door closed properly | * oven button not working |
| * verify that oven door opened properly. * verify the weight of the oven as per * specification verify the battery | * properly due to control panel and functionalist issue Display of the oven is not working proper due poor display uses * Display of the oven is not brighter due to long time uses |

|  |  |
| --- | --- |
| requirement of the microwave oven. | or poor quality display uses |
| * verify that the text written on the oven is viable or not | * sometime oven is overheated because of long time of uses |
| * verify that the digital display is visible or not | * sometime oven smell badly due to food can burn and produce smell |
| * verify that the temperature regulator is working or not | * sometime text written on the oven is not visible because of poor quality |
| * verify that that the temperature regulator is working smoothly or not | * color of the oven is faded due to long time uses or poor quality |
| * check the ovan kind of food 0functionality with different |  |
| * check the ovan functionality with different kind of food with different temp. |  |
| * check the power cord of ovan is long enough |  |
| * check the company name on the oven is visible or not |  |

## Write a scenario of Coffee vending Machine

|  |  |
| --- | --- |
| **Positive**  verify that the dimension of the coffee machine verify the the body and quality of machine as per require  verify the color of coffee vending machine  verify that the brand is correctly visable or not verify the input for coffee ingredients like milk, water and | **Negative**  sometime dimension of coffee vending machine is not proper due not properly made  sometime color of machine in fadedd because  of long time uses or poor color uses sometime brand name of machine is |

|  |  |
| --- | --- |
| powder etc.  verify that the power require for machine  verify the weight of the machine verify that the coffee should not leak if when not is used  verify that the display show correct information. check the machine in on and off using power button  check the indicator light is working or not  check the all functionality in working or not  verify that the each button have an image so it's indicating what is perform  verify that the complete quantity of a coffee should get poured in single operation  verify that the functionally to clean system working  properly  verify that system should display error if there have  some missing ingredients  verify that the machin should not make to much sound  check the amount of time taken to make a single  coffee  check the cup holder dimension as per market  standard | not show properly due to poor quality  sometime machine is not on due to electric  connection issue sometime machine make to much noise due to  user for a long time  sometime coffee tastes bad due to stale coffee beans or dirty components  sometime coffee is week due to incorrect  brewing time  sometime marching is heating because of long time of uses or sometime system is failure sometime machine is frezzing due to cooling  system is failure  machine display error because of software and  screen issue  display is not show brighter because of poor  display quality or software issue Sometime cup is stuck in machine due to  incorrect cup or misaligned cup dispenser  sometime button of machine is not working due to poor funtionality  sometime image on the button in not visiable  properly due poor quality or long time issue sometime water in the machine is overflow |

|  |  |
| --- | --- |
| check the machine performance in low voltage and  high voltage | because of water sensor issue Sometime machine has some hygiene issue  because of improper maintinance sometime display screen is flicking due to loss cable  sometime machine brewed coffee drips after cup removal because of some sensor problem check the sensor off machine if there is no cup s placed.  sometime coffee is heat to much due heating coffee problem |



**47 Write a scenario of chair**

|  |  |
| --- | --- |
| **positive test scenario**  verify the type of chair whether it's plastic, iron, steel, wood ,etc.  verify that the chair is enough to take an average human load  verify that the cushion provide with the chair or not  verify that the chair cushion if fitted proper or not  sit on the chair with average force to check the quality of chair  check the gently punch on chair to ensure the stability of chair  check the leg of chair is perfectly level to the floor or not verify the usability of chair whether it's office chair or normal home use chair  verify that the chair has back support or not  check that there is support for hands or not in the chair | **negative test scenario**  check the balance of the chair with one arm  check the balance of the chair with three  leg  some times chair have weak and unstable  joint because of poor quality some times chair have uneven legs length. because of poor joint connection  chair has a poor finish or low quality wood  chair has a fading color because of low  quality paint  sometimes chair have weak arm rests because of thin materials  chair has a defect wheels for rolling because |

|  |  |
| --- | --- |
| check the height of the chair as per satisfaction.  check the weight of the chair check the color of the chair  check the chair material is better or not  check the dimension of chair as per specification  check if the chair has an adjustment functionality or not.  check the functionality of office chair for sit up or down  verify that the wheel of the office chair is working good or  not verify that the wheel of chair in do not stuck between moving from one side to another  check the logo of company is printed properly or not | of jammed and poor quality chair has a uneven padding because of  manufacturing error  sometimes chair have a sharp edges reason incompetence fishing and broken.  parts  sometimes plastic chair in cracked because of low quality material and store chair in  extreme temp sometimes chair tilts to one side because of  uneven weight distribution chair have rough surface reason: poor finishing  sometime chair is difficult to clean because of fabric of chair is not good  chair missing branding or lables because of manufacturing problem  sometimes remote control chair is not working properly because of functionlity  error sometimes cushion of chair is tattered  because of poor quality some times switch to adjust the chair is  nor working because of functionality problem  sometimes chair have a stiff backrest tilt  because of poor lubricated some light weight chair is unstable because of |

|  |  |
| --- | --- |
|  | the use of light weight material |

49 To create HLR & TestCase of Web Based (WhatsApp web, Instagram)

Instagram file location **2ND Module folder (Instagram HLR testcase)**

WhatsApp file location **2nd module folder (WhatsApp(HLR,TESTCASE)**

1. **To create HLR and Testcase on this Link. https://artoftesting.com/.**

**2nd module folder name (test scenario)**

1. To Create gmail, flipkart Scenario (Positive & Negative)

**Gmail 2nd module folder name (test scenario)**

**Flipkart 2nd module folder name (test scenario)**

**52 Write a scenario of whatsapp payment.**

**2nd module folder (test scenario)**