Assignment-2

1. What is Exploratory Testing?

-> It is a testing approach where testers learn, design, and execute tests simultaneously to explore the application and find defects without using predefined test cases.

2. What is traceability matrix?

-> It is a document that links test cases with requirements to ensure that all requirements are covered and tested in the software.

3. What is Boundary value testing?

-> testing technique where tests are designed to check the values at the boundaries of input ranges, as errors often occur at the edge conditions.

4. What is Equivalence partitioning testing?

-> testing technique that divides input data into equal groups or partitions, so test cases from each group can represent all values in that group and reduce the number of tests.

5. What is Integration testing?

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

6. What determines the level of risk?

-> It is determined by the likelihood of a defect occurring and the impact or severity it would have if it occurs.

- Risks are of two types
    1. Project Risks
    2. Product Risk

7. What is Alpha testing?

-> It is a type of testing performed by internal teams (developers or testers) before releasing the software to external users to identify and fix defects early.

8. What is beta testing?

-> type of testing done by real users in a real environment before the final release to ensure the software works properly and meets user expectations.

9. What is component testing?

-> A minimal software item that can be tested in isolation. A unit is the smallest testable part of software it is called component testing. component testing called as a unit testing and it's done by developer.

10. What is functional system testing?

-> Functional Testing:

Testing based on an analysis of the specification of the functionality of a component or system.

->Specification Requirements specification, Use Cases, Functional specification or maybe undocumented.

11. What is Non-Functional Testing?

-> Non-Functional Testing:

Testing the attributes of a component or system that do not relate to functionality, reliability, efficiency, usability, interoperability, maintainability and portability.

12. What is GUI Testing?

-> It is a type of software testing that checks the Graphical User Interface of an application to ensure that buttons, menus, icons, and layouts work correctly and look as expected to the user.

13. What is Ad ho testing?

-> Adhoc testing is an informal testing type with an aim to break the system. Main aim of this testing is to find defects by random checking.

-> Adhoc testing can be achieved with the testing technique called Error Guesing.

14. What is Load testing?

-> Load testing is a type of performance testing that evaluates how a software application or system behaves when subjected to a specific expected load.

-> The goal is to determine whether the system can handle the anticipated number of users, transactions, or data volume without performance degradation.

15. What is stress Testing?

-> Stress testing is a type of performance testing used to determine how a system behaves under extreme or beyond normal load conditions.

-> Its goal is to identify the breaking point of the system and check how it recovers after failure.

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

-> White box testing is a software testing technique where the internal structure, code, and logic of the program are tested.

-> The tester has full knowledge of the source code and designs test cases to verify code paths, conditions, loops, and data flow.

- White Box Testing
    1. Desktop Based Testing
    2. Web Based Testing
    3. Mobile Based Testing
    4. Game Based Testing

17. What is black box testing? What are the different black box testing techniques?

-> Black box testing is a software testing technique where the functionality of an application is tested without knowing its internal code or structure.

- Black-box technique
  - Equivalence partitioning
  - Boundary value analysis
  - Decision tables
  - State transition testing
  - Use-case Testing
  - Other Black Box Testing

18. Mention what are the categories of defects?

-> Defects are commonly categorized into three severity levels
critical, major, and minor

19. Mention what big bang testing is?

-> Big Bang integration testing all components or modules is integrated simultaneously, after which everything is tested as a whole. Big Bang testing has the advantage that everything is finished before integration testing starts.

20. What is the purpose of exit criteria?

-> Exit criteria :

- Executed Test Cases are documented
- All High prioritized bugs fixed and closed
- Successful Testing of Integrated Application.
- Technical documents to be submitted followed by release

21.When should Regression Testing be performed?

-> smoke and sanity testing end after that performed Regression Testing.

22. What is 7 key principles?

- Testing Shows Presence of Defects
- Exhaustive Testing is impossible
- Early Testing
- Defect Clustering
- The Pesticide Paradox
- Testing is context dependent
- Absence of Error Fallacy

23. Difference between QA v/s QC v/s Tester

Quality Assurance	Quality Control	Tester
To improve the process and prevent defects.	To identify defects in the final product.	To execute test cases and report defects.
Process-oriented (e.g., defining standards, reviews, audits).	Product-oriented (e.g., checking whether product meets requirements).	Test-oriented (e.g., executing manual/automation tests).
Ensures testing processes and standards are followed correctly.	Verifies that the final product meets quality standards	Executes tests, finds bugs, and reports them for fixing.

24. Difference between Smoke and Sanity?

Smoke Testing	Sanity testing
This testing is performed by the developers or testers	Sanity testing is usually performed by testers
To ensure the build is stable enough for further testing.	To ensure that new changes or fixes did not break existing functionality.
After receiving a new build from developers.	After receiving a minor update or bug fix in a stable build.
Usually automated, as it involves repetitive build checks.	Usually manual, as it focuses on recent fixes and specific tests.

25. Difference between verification and Validation.

Verification	Validation
Verification is a static, internal process focused on documents and designs.	validation is a dynamic, external process involving actual product testing.
verification Purpose Preventing errors	validation purpose Detecting errors.

26. Explain types of Performance testing.

-> Software performance testing is a means of quality assurance (QA). It involves testing software applications to ensure they will perform well under their expected workload.

➔ **Types of Performance Testing**

- Load testing
- Stress testing
- Endurance testing
- Spike testing
- Volume testing
- Scalability testing

27. What is Error, Bug, Defect and Failure.

Error :

An incorrect action or mistake made by a developer while designing or coding the software. It occurs due to misunderstanding or wrong logic.

Bug :

A fault or issue found during testing that causes the software to behave unexpectedly. It is detected before the product release.

Defect :

A deviation between the expected result and the actual result in the application. When a tester finds this difference, it's reported as a defect.

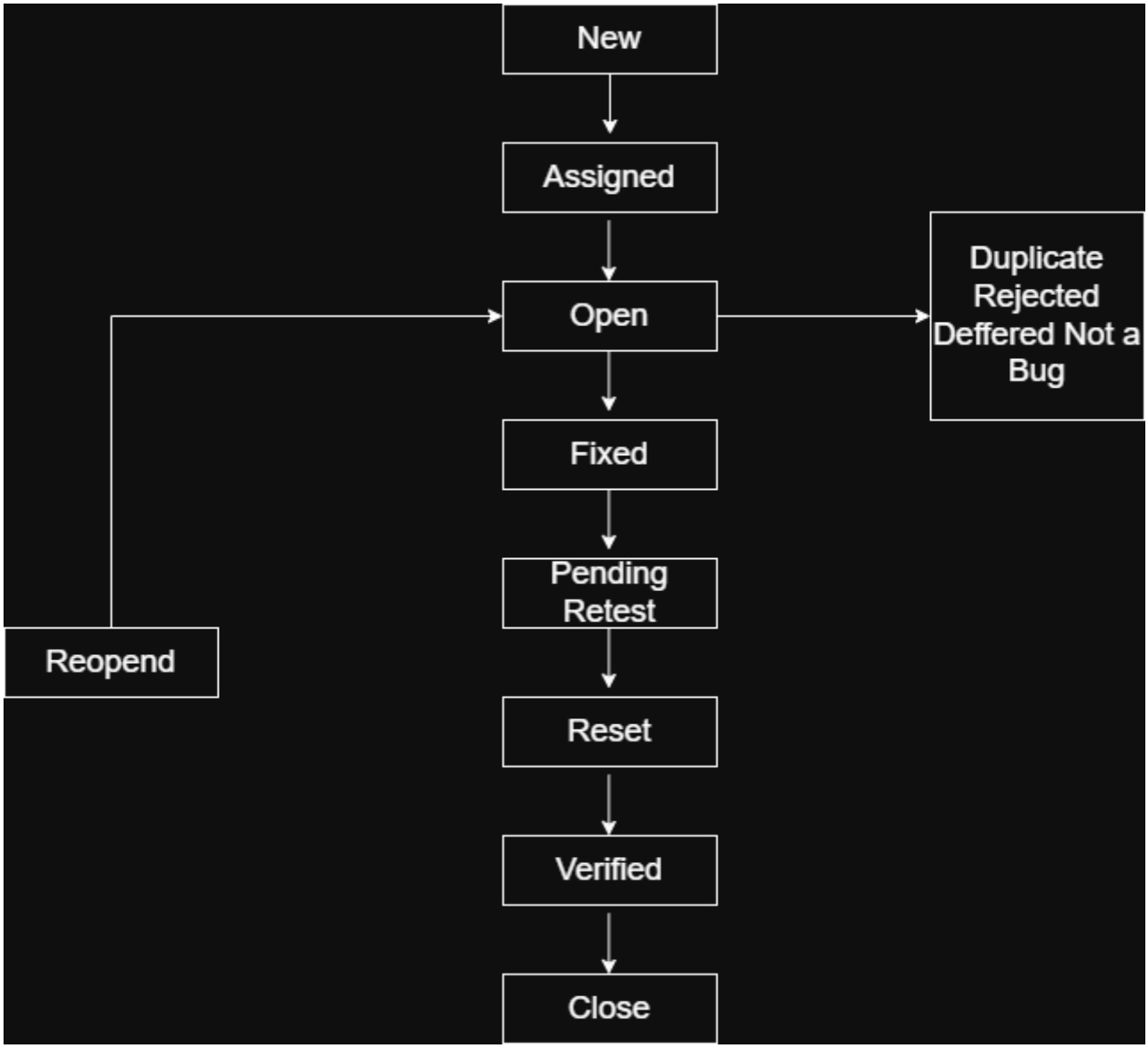
Failure :

When the software does not perform its intended function during actual operation or user execution. It is the result of an unremoved defect in the live environment.

28. Difference between Priority and Severity.

Severity	Priority
Severity defines how serious or critical a defect is to the functionality of the software.	Priority defines how quickly a defect should be fixed based on business needs.
Focuses on the impact of the defect on the system.	Focuses on the urgency to fix the defect.
Usually decided by the tester based on technical impact.	Usually decided by the project manager or client based on business importance.

29. What is Bug Life Cycle?



30. Explain the difference between Functional testing and NonFunctional testing?

Functional Testing	Non-Functional Testing
To ensure each function of the software application operates correctly.	To ensure the software's performance, usability, reliability, and other quality attributes.
Focuses on user actions, inputs, and outputs of the system.	Focuses on system attributes like speed, scalability, stability, and efficiency.
EX: Unit Testing, Integration Testing, System Testing, User Acceptance Testing (UAT).	EX: Performance Testing, Load Testing, Stress Testing, Security Testing, Usability Testing.
Functional testing describes what the product does	product does Nonfunctional testing describes how good the product works

31. To create HLR
(Instagram , Facebook) only first page

Functionality Id	Functionality Name	Description
101	Check Instagrame website Link	When I Click Website Opens Properly.
102	Check Instagrame Tab Preview	Check Instagrame Tab Preview is Visible Properly.
103	check the Sign up link	check the Sign up link is Proper clickable or not.
104	Check User Name	User Name Succesfully Add

105	Check Password	Password is Succesfully Add

Facebook Login Page:

Functionality Id	Functionality Name	Description
101	Check Facebool website Link	When I Click Website Opens Properly.
102	check the user first name field	User First name It is properly working
103	Check the User surname Field	User Surname is not number accept only character accept
104	check the Birth of Date field	Birth Date formate day,month,year Properly
105	check the gender field	Gender Field Only number accept
106	Check gender Button	It is male nad female radio button only for one choice select

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

SDLC	STLC
It is the process of developing software through different phases like requirement analysis, design, coding, testing, deployment, and maintenance.	It is the process of testing the software to ensure quality and that it meets the requirements.
Focuses on creating a functional and working product.	Focuses on verifying and validating that the developed product is defect-free and meets business needs.
Requirement → Design → Development → Testing → Deployment → Maintenance	Requirement Analysis → Test Planning → Test Case Design → Test Environment Setup → Test Execution → Test Closure
Involves developers, designers, project managers, and testers	Involves testers and QA teams mainly, with input from developers and business analysts.
To deliver a complete, functional software product to the client.	To ensure the delivered product is of high quality, reliable, and bug-free.

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

-> Test Scenario

A test scenario is a high-level description of what to test it checks a specific functionality or feature of the application.

-> helps ensure end-to-end testing coverage by describing all possible user actions or situations.

-> Test Case

A test case is a detailed set of steps, inputs, expected results, and conditions used to verify a specific part of a software feature.

-> It ensures systematic and thorough testing of each function or requirement.

-> Test Script

A test script is a set of instructions written in a programming or automation tool (like Selenium or QTP) to automatically perform testing steps.

-> it is used to automate repetitive tests to save time and improve accuracy.

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

-> Test Plan is a document that describes the scope, approach, resources, schedule, and objectives of software testing activities.

-> Test Plan ID: Unique identifier for the test plan document.
-> **Introduction:** Overview and purpose of the test plan.
-> **Objectives & Scope:** What features will be tested (in-scope) and what will not be tested (out-of-scope).
-> **Test Strategy / Approach:** The type of testing (manual, automation, performance, etc.) and how it will be done.

35. What is priority?

-> Priority defines how urgently a defect (bug) should be fixed based on its impact on the project or business needs.

1. Low
2. Medium
3. High
4. Critical

36.What is severity?

-> Severity refers to how serious the impact of a defect is on the functionality of the software.
It shows how badly the system is affected when the defect occurs.

1. Major
2. Moderate
3. minor
4. Cosmetic

37. Bug categories are…

- ➢ Performance:
  Slow performance, high resource usage.
- ➢ Security:
  Vulnerabilities, data breaches.
- ➢ Usability:
  User experience issues.
- ➢ Compatibility:
  Issues with hardware/software configurations.
- ➢ Localization:
  Issues with language or regional support.
- ➢ UI (User Interface):
  Issues with UI layout, design.
- ➢ Logic:
  Issues with business logic or algorithm.
- ➢ Error Handling:
  Issues with error messages or handling.

38. Advantage of Bugzila .

-> Bugzilla helps track, record, and manage bugs efficiently throughout the testing process, ensuring no defect is missed or lost.

-> All bugs and issues are stored in one central database, making it easy for testers, developers, and managers to access and update information in real time.

-> Bugzilla allows custom fields, workflows, and permissions to fit different project needs and team structures.

-> sends automatic email updates to team members when bugs are reported, assigned, or fixed improving communication.

-> Bugzilla provides detailed bug reports and statistics, helping analyze testing progress, defect trends, and project quality.

39. Difference between priority and severity.

Priority	**Severity**

priority indicates the order in which bugs should be fixed	severity describes the impact of a bug on the software's functionality
priority determines how quickly it should be addressed.	Severity assesses the bug's overall impact
Assessed by Product managers, developers, or stakeholders	Assessed by Testing engineers or QA professionals

40. What are the different Methodologies in Agile Development Model?

1. Scrum

- Scrum is the most popular Agile methodology.
- Scrum is derived from activity that occurs during rugby match.
- Roles: Product Owner, Scrum Master, and Development Team.
- Focuses on continuous feedback, daily stand-up meetings, and incremental delivery.

2. Kanban

- Kanban is a very popular framework for development in the agile software development methodology
- It provides a transparent way of visualizing the tasks and work capacity of a team.
- It mainly uses physical and digital boards to allow the team members to visualize the current state of the project they are working on.
- Kanban originated in Toyota in the 1940s.

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

Authentication	Authorization
It is the process of verifying who the user is	It is the process of verifying what the user is allowed to do.
Confirms user’s identity (e.g., username/password).	Determines user’s access level or permissions.
Logging in with correct username and password.	Allowing access to admin panel only for admin users.
Occurs before authorization.	Occurs after authentication.
Checking login functionality and credential validation.	Checking role-based access control and permissions.

Common Problems Faced in Web Testing:

1. Broken Links
   - ➢ the link is wrong and incorrect.
2. Cross-Browser Compatibility Issues
   - ➢ some functionality can only work only specified browser.
3. Security Vulnerabilities
   - ➢ some application or web don't allow access all users.
4. Performance Issues
   - ➢ if internet connection speed is low then application performance is slow.
5. Poor Responsiveness
   - ➢ check the website is responsive or not.

42. To create HLR & TestCase of WebBased (WhatsApp web , Instagram)

1. WhatsApp Web

HLR:

Functionality id	Functionality name	Description
101	Check Whatsapp website link	Whatsapp Website open properly
102	Show QR code	Whatsapp QR Work Properly
103	check the Whatsapp camera	check the camera scan the QR code Proper or not
104	check the page is responsive	page is responsive Properly
105	check the step	verify and check the steps are correct or not
106	check the scanner	check if the successfully scan QR then login successfully or not
107	check the login with phone no link Use	it's redirect enter phone no page
108	check the download button	check it's clickable and Working proper or not
109	check the get started link	Check it's clickable or not
110	check the user	check the user is already account on whatsapp
111	Check the whatsapp logout	when user login after that user logout with his phone at that time whatsapp web is also log out

2) Instagram Web:

HLR :

Functionality Id	Functionality Name	Description
101	Check Instagram website Link	Instagram Website Opens Properly.
102	Check Tab Preview Instagram	Instagram Preview is Visible Properly.
103	check the email field	email field accept character number and special symbol
104	check the number field	number field accept unlimited character
105	Check The Page responsive	Instagram login page is responsive
106	Check The Insta password	Verify the password is invalid and username is valid then show error message.
107	check the Grammer&Spelin	check the login page inside all spelling are correct or not
108	check the hide button	Instagram Hidden button proper work

43. To create HLR on this Link. https://artoftesting.com/

HLR :

Functionality Id	Functionality Name	Description
101	Check Art of Testing website Link	Art of Testing Website Open Properly.
102	check Tab Preview	Preview is Visible and Working Properly.
103	check the email field	Art of testing email field accept character number and special symbol like @
104	check the User first name field	check the first name field is Properly Work
105	check the first name field	Verify the first name field accept number character and special symbol also
106	check the page is responsive Or Not	Login page is responsive Properly
107	check the last name field	Last name field accept unlimited charachter
108	check the submit button	It's Working and clickable
109	check the submit button	t's send the our message to the server
110	Check the page	check the spellings or correct or not
111	check the fields	check the all mandatory fields are Work Properly

44. Write a scenario of only Whatsapp chat messages.

-> the sent message appears immediately in the chat window.
-> Verify that users can receive and view text messages from contacts.
-> that users can send emojis, stickers, and GIFs in chat messages.
-> Verify that the recipient receives the message in real-time.
-> that users can delete a message for themselves or everyone in the chat
-> users can forward a message to another contact or group.

-> that a message fails to send if the recipient has blocked the sender.
-> Verify users can reply to a specific message in the chat thread.

45. Write a Scenario of Pen.

-> check the pen length as per specification.
-> check the pen is ballpoint or gel pen.
-> verify and check the outer color of pen.
-> check the brand name is visible or not.
-> that user is able to write clearly on different type of paper.
-> check the Width and weigh of the pen.
-> the pen is with cap or without cap.
-> verify the ink color of the pen.
-> verify the text written by pen is erasable or not.
-> verify the pen is waterproof or not.
-> verify and check the pen gravity.
-> Verify if the pen can support multiple refills or not.

46. Write a Scenario of Pen Stand.

-> check the pen stand as per specification.
-> verify and check the pen stand weight.
-> verify and check the pen stand is plastic ,wood or metal.
-> verify and check the pen stand design is as per the specification.
-> that the pen stand can hold multiple pens without falling.
-> Verify that the pen stand is stable on a flat surface.
-> the pen stand can hold pens of different sizes and thickness.
-> the pen stand design allows easy removal and placement of pens.

47. Write a Scenario of Door.

-> check the door as per specification.
-> the door material is wood or Matel.
-> the door opens and closes smoothly without noise.
-> the door handle is easy to grip and operate.
-> that the door closes completely without gaps.
-> the door locks and unlocks properly with the correct key.
-> the door is sliding door or rotating door.

-> the door material is strong or not.
-> verify if the door is single door or bi-folded door.
-> Check the door color is as per specification.
-> check the quality and strength of the door.
-> the type of locks in the door.

48. Write a Scenario of ATM.

-> that all the labels and text boxes, buttons, images, and links are present on the screen.
-> the size, color, and UI of the different objects are as per the specifications.
-> the type of ATM machine, if it has a touch screen, both keypad buttons only, or both.
-> the touch of the ATM screen is smooth and or Not.
-> Verify that the ATM accepts a valid debit/credit card.
-> the user is presented with the option to choose a language for further operations.
-> Check the pin is displayed in masked form when entered.
-> the user is asked to enter a pin number before display any card account details.
-> the ATM dispenses the correct amount of cash.
-> Verify that the ATM returns the card after the transaction is completed.

49. When to used Usability Testing?

-> Usability Testing is used to check how easy, user-friendly, and efficient a software or application is for end users.
-> During the design phase to validate prototypes and find design issues early.
-> Before the final product launch to ensure the interface is intuitive and user friendly.
-> When introducing new features to check if users can easily understand and use them.
-> After a redesign to verify improvements or uncover new issues.
-> When user feedback or complaints indicate usability problems.

50. What is the procedure for GUI Testing?

-> that the images have good clarity
-> Check the positioning of GUI elements for different screen resolution.
-> Font used in application is readable.
-> Check the alignment of the text is proper.
-> check the warning messages is display proper.
-> check the header is proper aligned
-> check the size ,position, height and width of the element.
-> check the zoom in and zoom out properly.

51. Write a scenario of Microwave Owen.

-> Microwave Owen Which material is used.
-> microwave oven powers on when connected to a power source.
-> the oven stops heating when the timer ends.
-> the door closes properly and locks during operation.
-> the light inside the oven turns on during operation.
-> the microwave heats food evenly at a given power level.
-> the microwave starts cooking when the timer is set and the start button is pressed
-> the display shows accurate time and settings.

52. Write a scenario of Coffee vending Machine.

-> check the outer body and internal part of the Coffee vending machine.
-> check the color or the Coffee vending machine.
-> Verify the power requirements of the machine.
-> the digital display displays correct information or not.
-> the functioning of all the buttons work properly when pressed.
-> that system should display an error when it runs out of ingredients.
-> check the brand and logo is display properly or not.

53. Write a scenario of chair.

-> Check The Chair is Which Company.
-> check the weight of the chair.
-> check the color of the chair.
-> verify and check the material of the chair is wood, plastic.
-> Check if the chair's leg are level to the floor.

-> check if there is support for hands in the chair.
-> Check the condition when washed with water or effect of water on chair.
-> Check the height of the chair's seat from floor.
-> check the easily can move one place to another.
-> Check the usability of the chair as an office chair, normal household chair.
-> Check if there is back support in the chair.

54. To Create Scenario (Positive & Negative) .

Gmail (Receiving mail)

-> Gmail receives emails sent from a different domain.
-> Gmail does not receive the email if the network connection is down.
-> Verify that Gmail does not receive spam emails in the Inbox.
-> that Gmail receives emails sent from another Gmail account.
-> that email attachments are received and accessible.
-> that email notifications are triggered when a new email is received.
-> Gmail does not receive an email if the sender's email address is invalid.
-> the subject and content of the email are displayed correctly.

Online shopping to buy product (Flipkart)

-> Verify that a user can log in or not.
-> that a user can add a product to the cart successfully.
-> the product details (name, image, price, stock, etc.) are displayed correctly.
-> that a valid shipping address can be added/selected.
-> that an order confirmation email/SMS is sent after purchase.
-> Verify that the user cannot proceed to checkout with an empty cart.
-> Verify that the cart updates correctly when a product is added or removed.
-> Verify that the checkout process starts successfully from the cart.
-> Verify that the system shows an error for invalid coupon codes.
-> that the system does not allow checkout without a shipping address.

55. Write a Scenario of Wrist Watch.

-> the wrist watch displays the correct time or not.
-> Verify the material of the watch and its strap.
-> that digital time is displayed in the correct 12/24-hour format.
-> the date updates automatically at midnight.

-> Check if the watch is having a date and day display or not.

-> Verify that the stopwatch or timer functions work correctly.

-> Verify the color of the text displayed in the watch – time, day, date, and other information.

-> Check if the shape of the dial is as per specification.

-> the brand of the watch and check if its visible in the detail.

56. Write a Scenario of Lift(Elevator)

-> the type of door of the lift is as per the specification.

-> verify the which material is used to made lift.

-> the emergency button is available or not.

-> verify the emergency button is working or not.

-> that in case the multiple floor number button is clicked, the lift should stop on each floor

-> verify all button are perfectly work or not.

-> that the lift moves to the particular floor as the button of the floor is clicked.

57. Write a Scenario of WhatsApp Group (generate group)

-> that a user can create a new WhatsApp group.

-> that the group appears in the chat list after creation.

-> the creator is automatically made the group admin.

-> that user can see how many person see his message.

-> verify user can voice call or not.

-> the newly created group allows sending and receiving messages.

-> Verify that participants receive a notification when added to the group.

-> that the group can include members from both phone contacts and invite links.

58. Write a Scenario of Whatsapp payment

-> that payment option is available or not.

-> payment option is open or not.

-> that user link bank account to WhatsApp payment Available or not.

-> verify user can receive money from WhatsApp account or not .

-> that confirmation message display or not.

-> that without internet connection user can use the payment option or not.

-> verify user link valid phone number to bank account.

-> user can send money which user use WhatsApp payment option or not.
-> verify that amount is deduct from the sender account or not.
-> if user enter 3 time invalid PIN then user block account or not.