

MANUAL TEST ENGINEERING

PROJECT ON E-COMMERCE

WEBSITE :---

PROJECT NAME :- E-COMMERCE WEBSITE.

PROJECT DONE BY :- G.VIGNESH

DATE OF STARTED :- 16-10-2024.

DATE OF COMPLETED :-30-10-2024.

1. INTRODUCTION:-

E-COMMERCE means mainly here the seller and buyer of goods or services through internet.

E-Commerce Categories are:-

1. B2B -Business to Business:

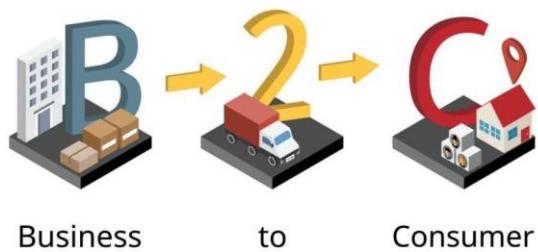
when a business body selling or purchasing products or services from another body such e-commerce is called B2B e-commerce



ex: Hindustan leather –Bata, RR, ACTION, RT HL SELLING PRODUCTS TO ALL BUSINESS BODIES

2. B2B-Business to Customer:-

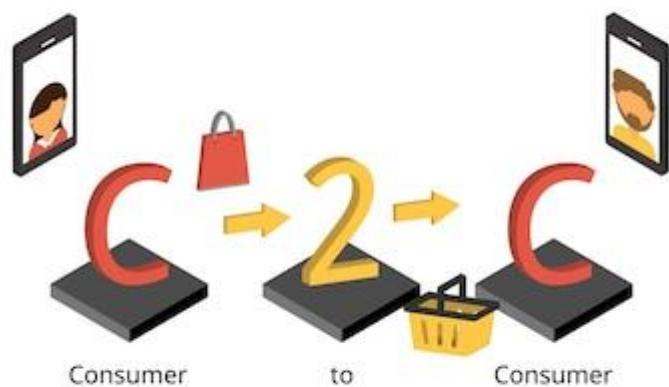
when business body directly selling products and services directly to the end users with the help of e-commerce such e-commerce is known as Business to customer e-commerce.



ex:- MEDPLUS IS THE BUSINESS BODY, TO SELLING THE PRODUCT TO THE CUSTOMER.

3. C2C- Customer to Customer:-

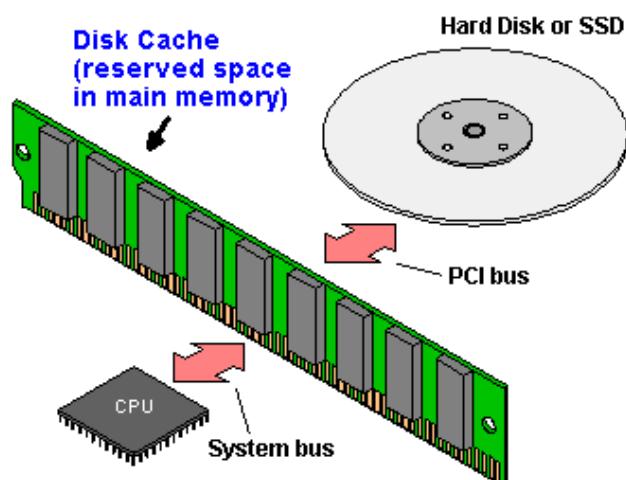
WHEN A CUSTOMER IS SELLING THE PRODUCT OR SERVICES TO ANOTHER CUSTOMER WITH HELP OF e-commerce SUCH e-commerce KNOWN AS C2C.



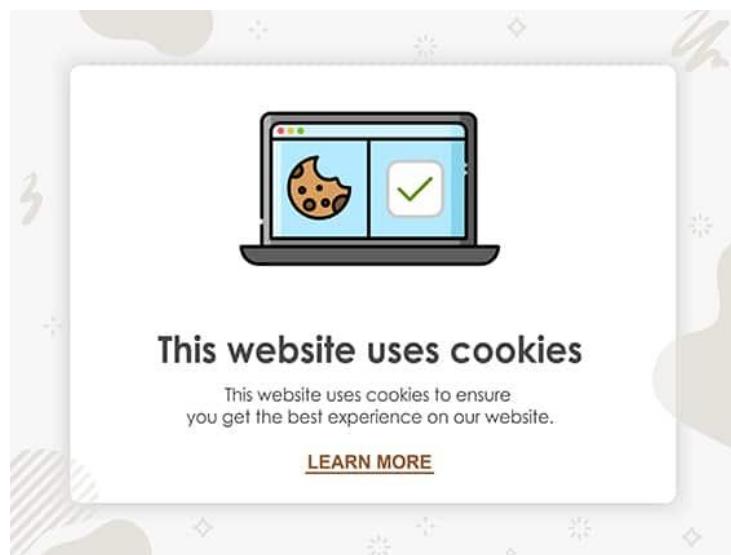
EX:- OLX.

1.2 KNOWLEDGE OF CACHE AND COOKIES :-

- CACHE :- Cache is a temporary storage of web page resources stored on a client's machine for quicker loading of the web pages. The browser stores the web site contents like the images, videos, audio, text etc on our computer so the next time when we load the same website we will find it loading faster.



- COOKIES :- Cookies are temporary internet files which are created at client side when we open a website. These files contain user data.

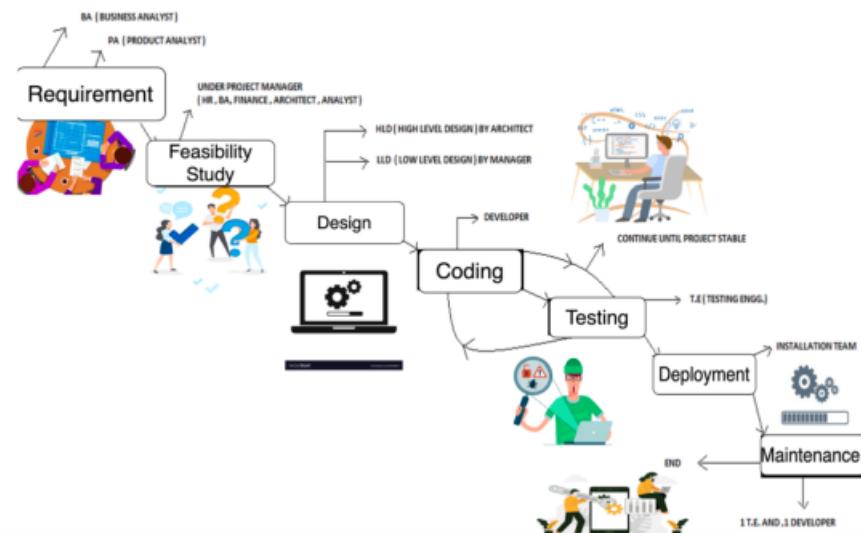


Cookies



1.4. SOFTWARE DEVELOPMENT LIFECYCLE[SDLC]:-

It is a step-by-step process of developing of an application in this duration various stages are involved like Requirement analysis, Feasibility Study, Design, Coding, Testing, Installation [Deployment], Maintenance.



1. Requirement Analysis

- Objective:** Gather and document requirements.
- Process:** The project team meets with stakeholders to identify what they need from the application. This stage involves interviews, surveys, and document analysis.



- **Output:** A clear list of functional (what the system should do) and non-functional (system qualities like performance) requirements.

2. Feasibility Study

- **Objective:** Assess if the project is viable in terms of technical, financial, and operational aspects.
- **Process:** The team evaluates resources, budget, time, and technology needed to complete the project.
- **Output:** A feasibility report that helps stakeholders decide whether to proceed.



3. Design

- **Objective:** Define how the application will look and work.
- **Process:** The team creates detailed designs, including system architecture, data flow diagrams, and user interfaces.
- **Output:** System design documents, which include both high-level architecture and detailed component designs.



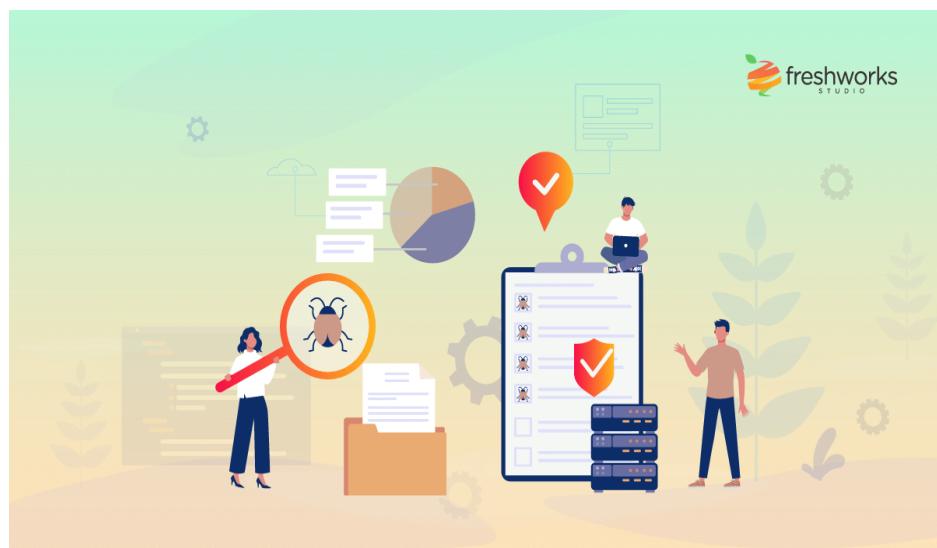
4. Coding

- **Objective:** Translate designs into executable code.
- **Process:** Developers write code according to the design specifications. They use programming languages, frameworks, and tools suitable for the project.
- **Output:** Source code files and possibly code documentation.



5. Testing

- **Objective:** Ensure the software meets requirements and is free of defects.
- **Process:** Testers run various types of tests (unit, integration, system, user acceptance) to find and fix bugs.
- **Output:** Tested software that's ready for deployment.



6. Installation (Deployment)

- **Objective:** Make the software available to end-users.
- **Process:** The team deploys the software to the production environment. This may involve configuring hardware and software settings, migrating data, and setting up security measures.
- **Output:** Live software accessible to users.

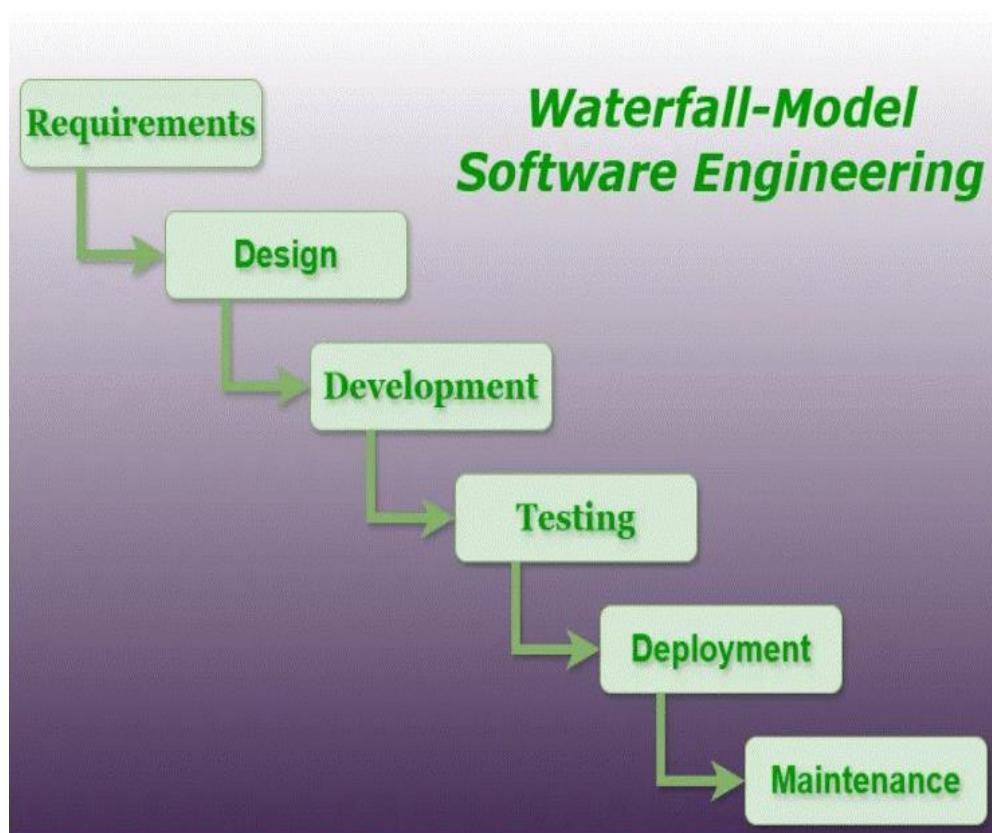
7. Maintenance

- **Objective:** Keep the software running smoothly post-deployment.
- **Process:** This involves fixing issues, making updates, and enhancing features over time to meet new requirements or improve performance.
- **Output:** Continuous updates and patches, ensuring the software remains functional and relevant.

2. AGILE METHODOLOGY:-

2.1 INTRODUCTION TO AGILE:- Before going to depth of Agile We have to be aware of Waterfall Model.

WATERFALL MODEL :-



The **Waterfall Model** is a sequential approach to software development that follows a strict order: Requirement Analysis, Design, Coding, Testing, Deployment, and Maintenance. Each phase must be completed before the next begins, with minimal overlap or iteration between them.

This model is ideal for projects with well-defined, stable requirements, where changes are unlikely during development. It emphasizes thorough documentation and planning, ensuring each phase meets its specific objectives before progressing. While it provides structure and clear milestones, the Waterfall Model is less flexible than iterative models, making it less suitable for projects with evolving requirements.

[**Advantages of Waterfall Model:-**](#)

- 1. Simple and Easy to Understand:** The sequential steps and structured approach make it easy to follow and manage.
- 2. Clear Milestones:** Each phase has defined outcomes and documentation, allowing teams to track progress easily.
- 3. Well-Documented:** Extensive documentation is created at each stage, which is helpful for future maintenance.
- 4. Ideal for Smaller Projects:** Works well for projects with clear, stable requirements where minimal change is expected.

Disadvantages of WaterFall Model:-

1. **Inflexible to Changes:** Once a phase is completed, going back to make changes is difficult and costly.
2. **Delayed Testing:** Testing occurs only after coding, meaning issues can be detected late in the process.
3. **High Risk for Larger Projects:** Projects with evolving requirements or complex needs may suffer due to the model's rigidity.
4. **Customer Involvement Limited:** Customer feedback is minimal until the project's end, which may lead to dissatisfaction if expectations aren't fully met.

2.2 Agile:- Agile is set of beliefs to make decisions to develop an software.

- Agile is philosophy[i.e] set of values & principles.

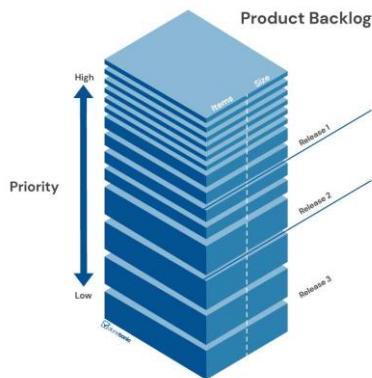
2.3 Principles of AGILE:-

- Highest Priority is to satisfy the customer through early and continuous delivery of valuable software.
- Requirement changes are welcoming, even late in development. Agile thinks the customers advantages of this software.
- Delivering the working software frequently from a couple of weeks [demo giving to customers at every stage].
- Delivery and Business people work together throughout the project.
- Developers and Business people work together throughout the project.
- Develop the environment that can get the job done given by the customer to develop a software.
- Effective method should be there to develop an application conveying info to the customers.
- Working Software is primary measure of progress.

2.4 SCRUM:- Scrum is an management framework under Agile which consists of sudden rules and regulations which need to be followed by each team member.

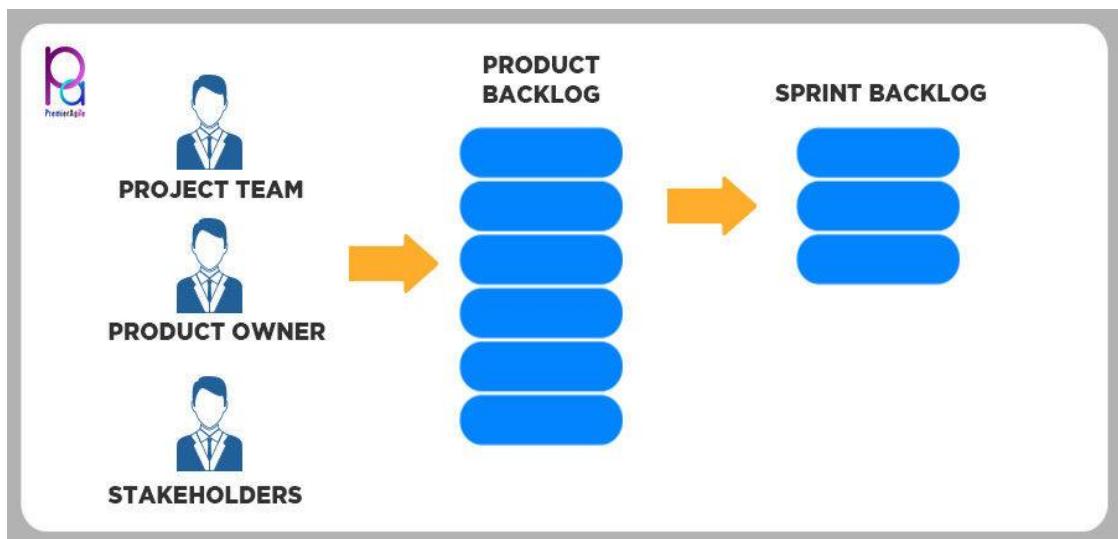
SCRUM TEAMS:-

1. Product Backlog:- Whole thing about the software [i.e] login, payment, and some other are in product Backlog.

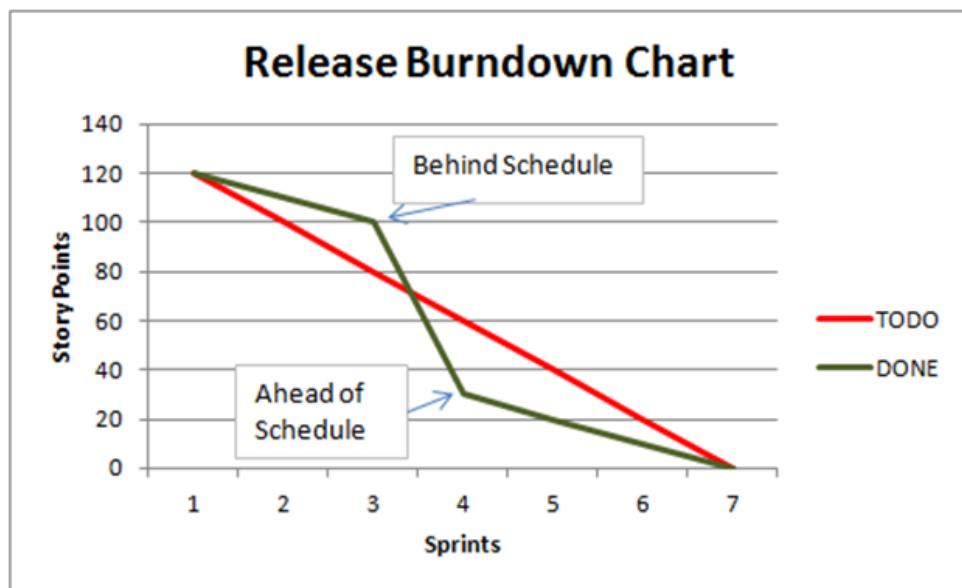


2. Sprint Backlog:- In this Each scrum are divided into same backlogs these backlogs are done according to the product backlogs.

“N” No.of Sprints = One no.of Working



3. **Burn Down Chart:-** Completed sprint and Checking how the activities are [i.e.] progress of it.



Roles :-

1. Product Owner:- Entire Things about the software is responsible of the person because to develop of the application correctly.

2. Scrum Master:- He is the persons who maintains the meeting about the software and cleaning Roadblock of the software; integrity of software and protecting the team and developing the team coaching and supporting.

3. Team :- Who worked on the particular project [i.e]it may developers , Testers , Designer.

Ceremonies: -

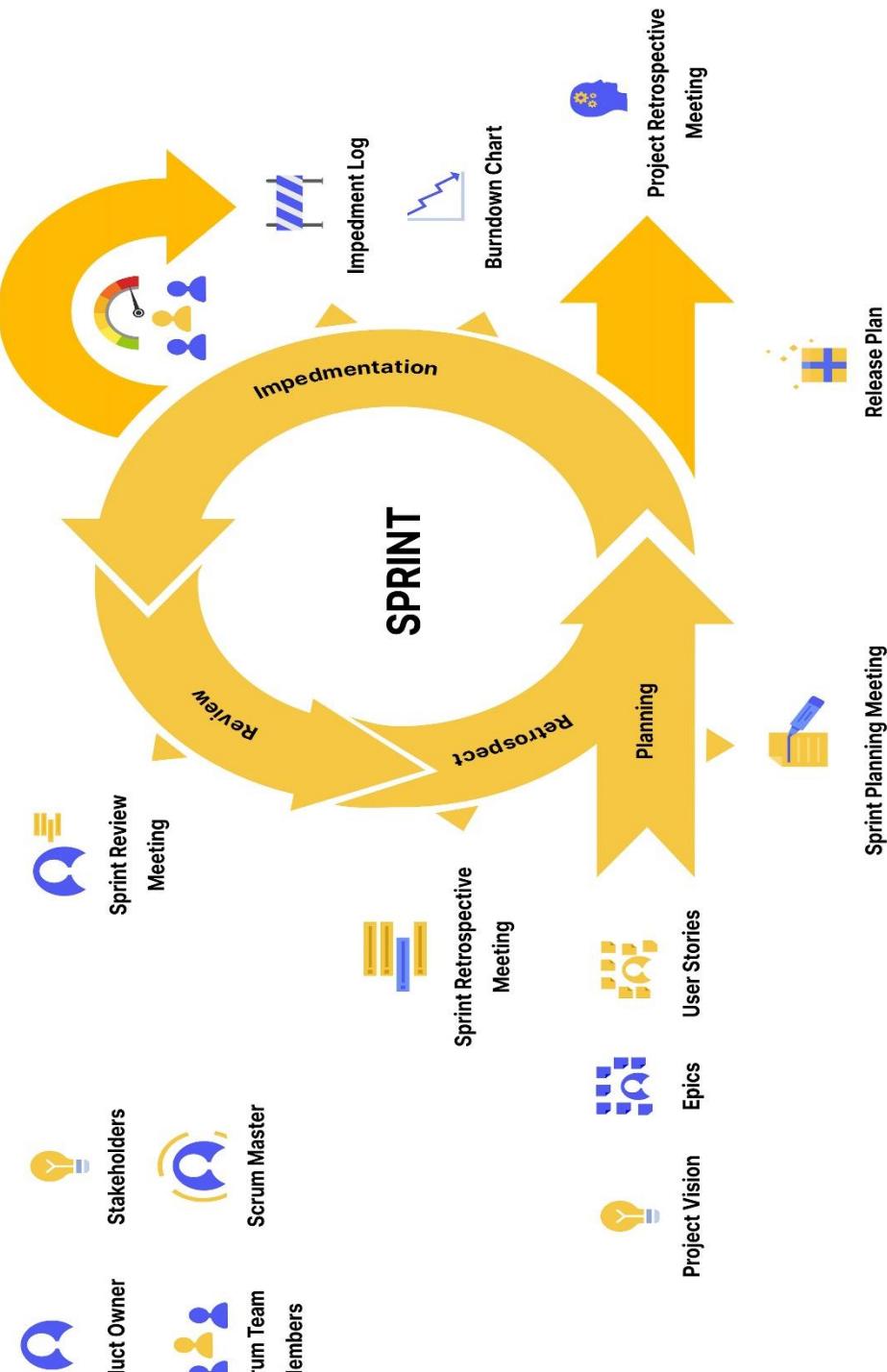
1.Sprint Planning:- It has no.of Sprints which developer to customers according to the customers requirements like Sprint planning have working on their assigned modules (or) features.

2.Daily Scrum:- It was done by the scrum master what are the things happen on the software it was how enhancement going was done by daily scrum master through meeting.

3.Sprint Review:-A set of team Completion of software is reviewed by the team is called Sprint review.

SCRUM WORKING:-

The Agile—Scrum Framework



product development. Work is organized into short, time-boxed periods called **Sprints**, typically lasting 2-4 weeks. Each sprint aims to deliver a potentially shippable product increment, adding value progressively. Scrum teams consist of three roles: the **Product Owner**, who defines and prioritizes product requirements; the **Scrum Master**, who facilitates the process and removes obstacles; and the **Development Team**, responsible for creating the product.

The process begins with **Sprint Planning**, where the team selects tasks from the prioritized **Product Backlog** (a list of requirements) and commits to achieving them within the sprint. **Daily Standups** are held to assess progress and address issues, fostering transparency and teamwork. At the end of each sprint, the team holds a **Sprint Review** to demonstrate the product increment and a **Sprint Retrospective** to reflect on the sprint process, making continuous improvements.

Scrum's iterative, flexible approach allows for rapid adaptation to changing requirements, frequent customer feedback, and continuous improvement. This makes Scrum ideal for projects with dynamic needs, where responsiveness and iterative development are critical.

SCRUM BOARD :-

A **Scrum Board** is a visual tool used to manage and track the progress of tasks during a sprint in the Scrum framework.

The screenshot shows a digital Scrum Board titled "Product Development Board". The board is divided into three main columns: "TO DO 5", "IN PROGRESS 3", and "DONE 3". Each column contains cards representing tasks, which are further categorized by color-coded labels (e.g., Deployment, Feature Development, Design) and specific task names. The "TO DO" column includes tasks like "End-to-End Testing", "Training and Support", "Deployment", and "Social Media Plan". The "IN PROGRESS" column includes tasks like "Feature: Product and Price Management", "Feature: Shopping Cart", "Feature: Payment", and "UI/UX Wireframes". The "DONE" column includes tasks like "Design Guidelines" and "Feature: User Registration". The top right of the board features a timer set to 15 days, a "Complete sprint" button, and various filter and sorting options.

Column	Task Category	Task Name	Due Date	Status
TO DO 5	Deployment	End-to-End Testing	07 JUN	In Progress (D)
	Deployment	Training and Support	12 JUN	In Progress (C)
	Deployment	Deployment	13 JUN	In Progress (D)
	Social Media	Social Media Plan	31 MAY	In Progress (C)
IN PROGRESS 3	Feature Dev	Feature: Product and Price Management	15 MAY	In Progress (D)
	Feature Dev	Feature: Shopping Cart	24 MAY	In Progress (D)
	Feature Dev	Feature: Payment	24 MAY	In Progress (D)
DONE 3	Design	Design Guidelines	03 MAY	Completed (G)
	Design	UI/UX Wireframes	10 MAY	Completed (G)
	Feature Dev	Feature: User Registration	14 MAY	In Progress (D)

It displays the sprint's selected tasks from the **Product Backlog**, categorized into columns like **To Do**, **In Progress**, and **Done**. Tasks, often represented as cards, move across columns as they advance through different stages of completion. The Scrum Board can be a physical board or a digital tool, making it easy for the team to see current progress, identify bottlenecks, and maintain transparency. It enhances team focus, accountability, and fosters effective sprint management.

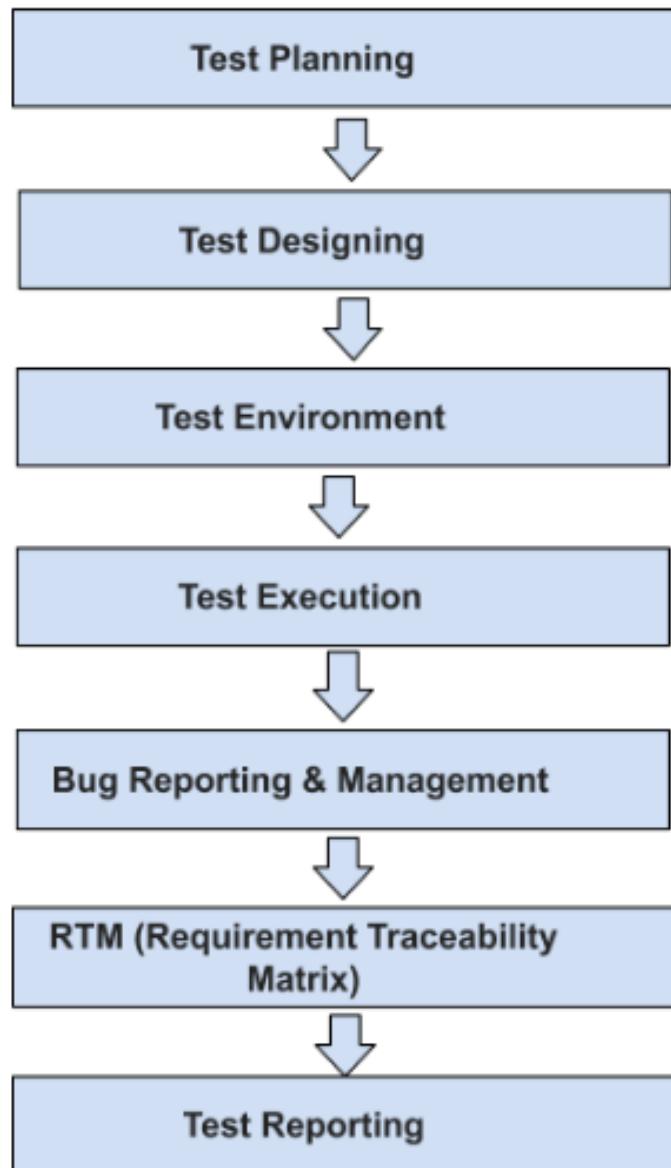
KANBAN BOARD:-

The screenshot shows a Kanban board interface with the following details:

- Header:** Kanban in Space, Kanban board.
- Quick Filters:** Only My Issues, Recently Updated.
- Columns:**
 - Selected for Development (6 cards):**
 - TIS-10: Complete ignition tests (Priority: Saturn Shoot, Status: In Progress)
 - TIS-15: Get Hubble working again (Priority: Space Exploration, Status: In Progress)
 - TIS-16: Research the Space Exploration project (Priority: Space Exploration, Status: In Progress)
 - TIS-17: Design a new rocket (Priority: Space Exploration, Status: In Progress)
 - TIS-6: Hire the team (Priority: Mars Landing, Status: To Do)
 - In Progress (2 cards):**
 - TIS-1: Spaceship tracker app updates (Priority: Mars Landing, Status: In Progress)
 - TIS-2: Verify the landing site (Priority: Mars Landing, Status: In Progress)
 - Done (3 cards):**
 - TIS-3: Enter the landing trajectory into the landing module (Priority: Mars Landing, Status: Done)
 - TIS-4: Send the pre-landing report to Earth (Priority: Mars Landing, Status: Done)
 - TIS-5: Cleanup the landing site (Priority: Mars Landing, Status: Done)- Bottom Right:** Release... button, a message about showing recently modified issues, and a link to look for older issues.

A **Kanban Board** is a visual management tool that organizes workflow and tracks tasks across different stages, promoting efficiency and clarity. Typically divided into columns like **To Do**, **In Progress**, and **Done**, the board displays tasks on cards, which move from left to right as they progress. Unlike Scrum boards, Kanban boards are continuous and don't rely on fixed sprints; they prioritize a steady, flow-based approach with limits on tasks per column to avoid bottlenecks. This ensures that the team focuses on completing tasks before starting new ones, fostering better workload balance, visibility, and improved workflow management.

SOFTWARE TEST LIFE CYCLE [STLC]:-



The **Software Testing Life Cycle (STLC)** is a systematic process followed to ensure the quality and effectiveness of software through structured testing. Each phase has specific objectives, making testing more organized and efficient.

1. **Test Planning:** Define objectives, scope, resources, and schedule for testing. It includes risk assessment and selection of testing tools.
2. **Test Designing:** Create detailed test cases and test data based on requirements. This phase outlines the steps, inputs, and expected results for each test.
3. **Test Environment Setup:** Prepare the software, hardware, and network configurations required to run tests. This environment should closely resemble the production setup.
4. **Test Execution:** Run test cases and record outcomes. Any mismatches between expected and actual results are flagged as defects.
5. **Bug Reporting & Management:** Document and manage identified bugs. This includes assigning severity and priority to each issue for prompt resolution.

6. **RTM (Requirement Traceability Matrix):** Ensure all requirements are covered by test cases, confirming no functionality is missed.
7. **Test Reporting:** Summarize results, including defect counts, test coverage, and quality status. This report aids stakeholders in decision-making about release readiness.

STLC improves software quality by identifying defects early and ensuring thorough requirement coverage.

Project Details:-

Testing is done on the E-commerce Website i.e it is B2C [Business to customer] and the link of it is [<https://www.limeroad.com/auth/login>] and I worked it on web application.

Edition :- Windows 11 Home Single Language,

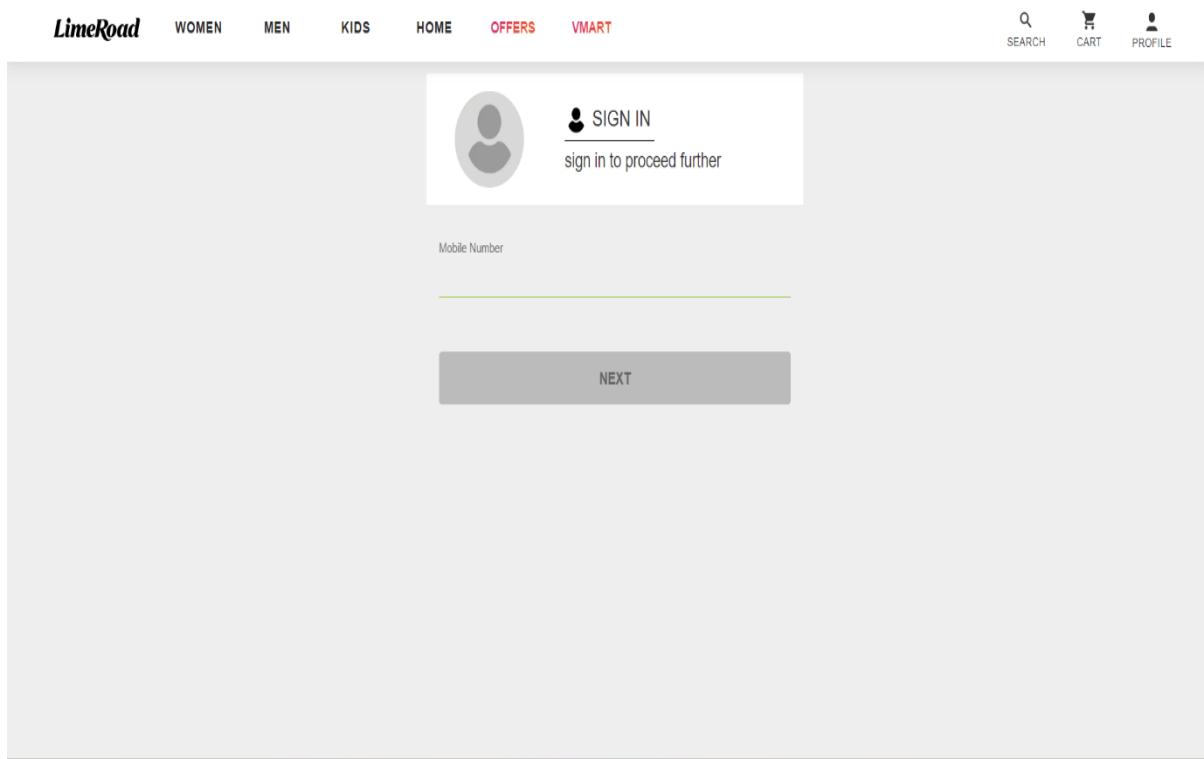
Version:- 23H2,

OS Build:- 22631.4169,

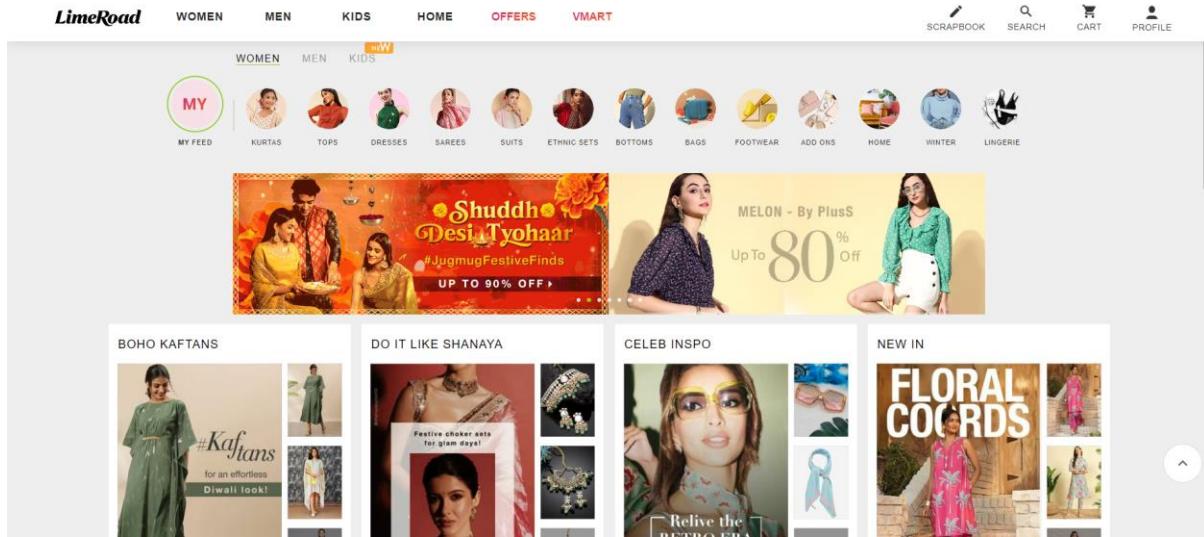
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Here I Tested on mainly two features they are:

- Login/Log Out of an LimeRoad website.

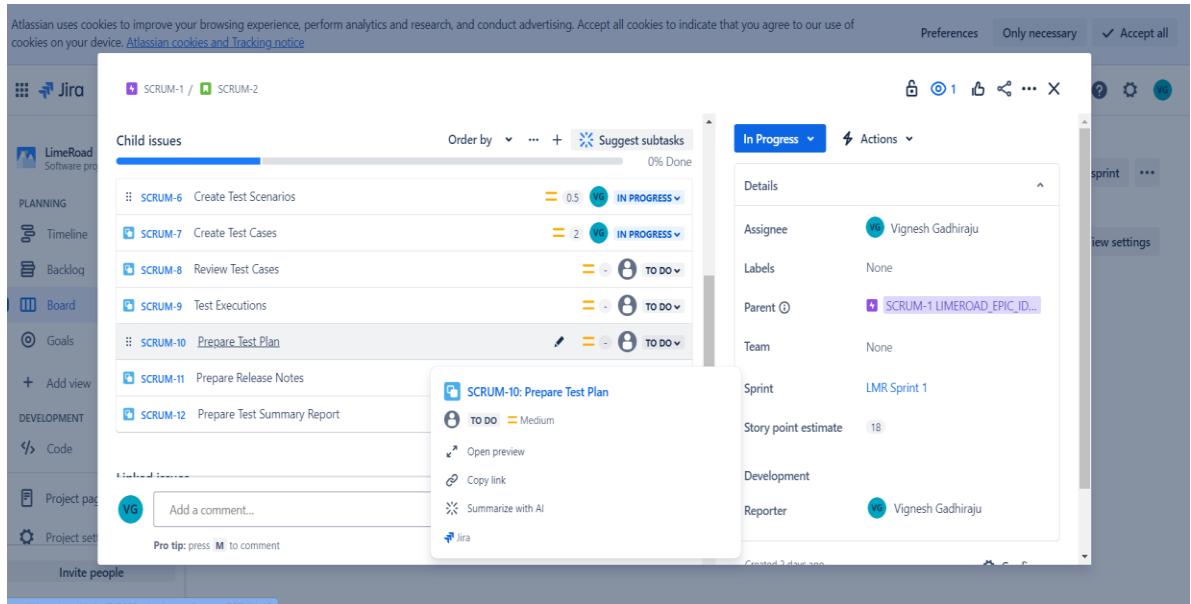


• Homepage.



1. Here basically I understood the Application as in the sight[View] of Business Analyst. And again I Started creating Buglife Project, Scrum , Kanban , and in scrum board , in Scrum using Backlog I started create the Epic Story by using Jira Tool.

2. For Each and Every Feature I created the Epic Story and again in that I created the child issues Process of like Test Cases and Test Scenarios for the login and logout page.



The screenshot shows the Jira software interface. On the left, there's a sidebar with project navigation options like Planning, Backlog, Board, Goals, Add view, Development, Code, Project pages, and Project settings. The main area displays a backlog of issues under the epic 'SCRUM-1'. One issue, 'SCRUM-6 Create Test Scenarios', is currently selected and shown in a detailed view on the right. This view includes fields for Assignee (Vignesh Gadhira), Labels (None), Parent (SCRUM-1 LIMEROAD_EPIC_ID...), Team (None), Sprint (LMR Sprint 1), Story point estimate (18), Development, Reporter (Vignesh Gadhira), and a note indicating it was created 3 days ago. A tooltip for 'SCRUM-10 Prepare Test Plan' is also visible, showing its status as 'TO DO' with a medium priority.

3. Then after created a Test Cases and Test Scenarios of the Login and Logout Feature through the EXCEL Sheets.

4. After the Same level test engineer is reviewed the Testcases and the test engineer is Check the mistakes and things not written by the test engineer is forwarded via mail to the test engineer.

- 5.This process will continued until both test engineer satisfied and finally Test lead will approve the testcase.
- 6.Then After the Test Execution process will started by the test Engineer like Functional Testing and Non-Functionality Testing.
- 7.Here Bugs are raised by the test engineer and it was mailed to the developer to fix the bug encountered by the test engineer and again fixed Bug is re-tested by the test engineer until the bug is cleared.if it is not cleared again directly moves to the developer.

Jira

Project: LimeRoad-Bug Tracking
Sorted by: Created descending
1-5 of 5 as at: 29/Oct/24 2:06 PM

T	Key	Summary	Assignee	Reporter	P	Status	Resolution	Created	Updated	Due
✓	LBT-5	At Home page the Tick Mark is not highlighted with best color	Vignesh Gadhiraju	Vignesh Gadhiraju	✗	DONE	Done	28/Oct/24	29/Oct/24	
✓	LBT-4	We can see that the spelling of the Size in homepage is not proper	Vignesh Gadhiraju	Vignesh Gadhiraju	✗	DONE	Done	28/Oct/24	29/Oct/24	
✓	LBT-3	User is not able to select the size of the particular product	Vignesh Gadhiraju	Vignesh Gadhiraju	✗	DONE	Done	28/Oct/24	29/Oct/24	
✓	LBT-2	User is not able to add the product as Wishlist	Vignesh Gadhiraju	Vignesh Gadhiraju	✗	DONE	Done	28/Oct/24	29/Oct/24	
✓	LBT-1	Login User is not getting OTP & Login is blocked	Vignesh Gadhiraju	Vignesh Gadhiraju	✗	DONE	Done	28/Oct/24	28/Oct/24	

8. According to the Things given in the Testcases written by the Test Engineer. until the both Expected Result and Actual Results are both satisfied.

9. If the both Expected Result and Actual Result will both deviates means the particular step is failed similarly the particular step is passed means the both are matches.

10. According to this the Test Execution Report is prepared.

10.The Test Plan attributes are created according to the requirements. And the test Case repository is conducted by the Test engineer and Developer and Scrum Master.

11.What are the things are not align and what problems are faced by the several teams at several departments.

12.And finally the Sprint is completed by the Test engineer particular feature is working correctly.

