

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	30 <sup>th</sup> JUNE 2025
Team ID	LTVIP2025TMID52558
Project Name	Learn Hub
Maximum Marks	4 Marks

#### Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: <https://www.mural.co/templates/brainstorm-and-idea-prioritization>

#### Step-1: Team Gathering, Collaboration and Select the Problem Statement



## Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 🕒 10 minutes to prepare
- 🕒 1 hour to collaborate
- 👥 2-8 people recommended



### Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes



#### Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.



#### Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.



#### Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →



### Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

PROBLEM

How might we [your problem statement]?



### Key rules of brainstorming

To run an smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



If possible, be visual.

## Step-2: Brainstorm, Idea Listing and Grouping

2

### Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

#### TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Person 1

We need a platform where students can access latest technology courses

Person 2

We need a platform where individual educators can create courses

Person 3

Courses need to be affordable to students

Person 4

Courses can be learnt in anywhere and in any language from across the world

3

### Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

🕒 20 minutes

#### TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Students can  
enroll and  
learn courses

Individual  
educators  
can create  
courses

Courses can  
be learnt from  
anywhere  
and in any  
language

## Step-3: Idea Prioritization

4

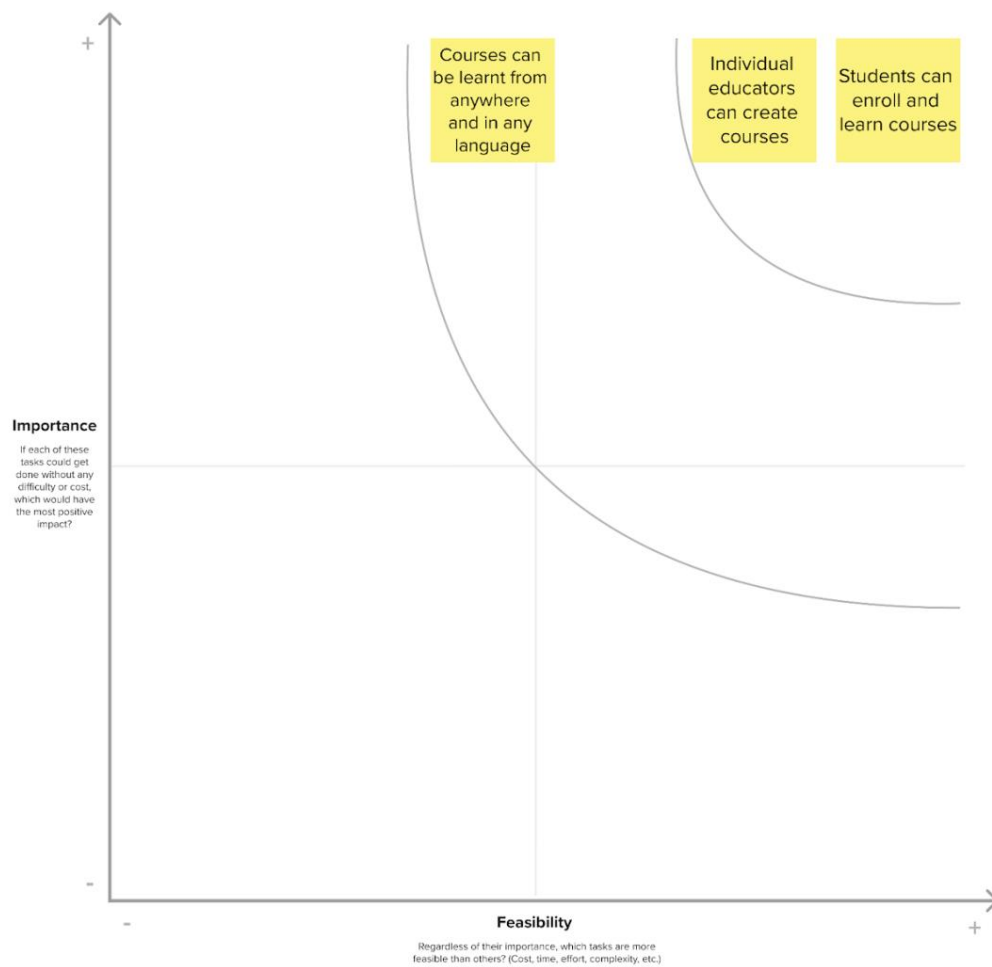
## Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

### TIP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.



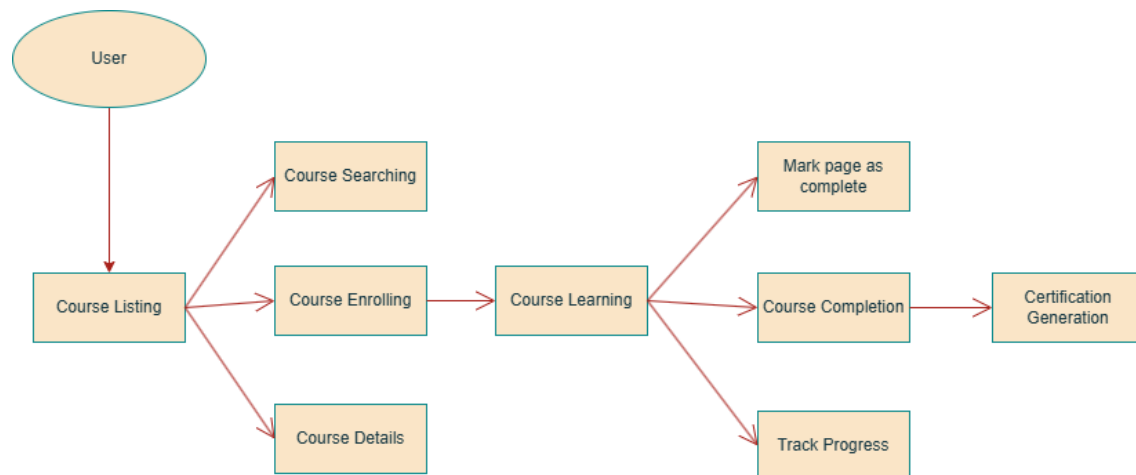
**Project Design Phase-II**  
**Data Flow Diagram & User Stories**

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**Data Flow Diagrams:**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

**Example:**



## User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Educator		USN-1	As an educator, I can register for the application by entering my email, password, and confirming my password.	I can create an account easily	High	Sprint-1
		USN-2	As an educator, I can create courses	I can create high quality courses	High	Sprint-1
		USN-3	As an educator, I can upload videos into my course. Add chapters and pages to courses.	I can add chapters in course, and pages in chapters	High	Sprint-2
Learner		USN-1	As a learner, I can find latest	I can easily find latest courses	High	Sprint 1

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
			technology courses			
		USN-2	As a learner, I should be able to learn from the comfort of my home	I can easily learn any course sitting in my home	High	Sprint 1
		USN-3	As a learner, I should be able to learn courses in any regional language	I can learn a course in any language I want	Low	Sprint 2

## Ideation Phase

### Define the Problem Statements

Date	30th JUNE 2025
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Project Name	Learn Hub
Maximum Marks	2 Marks

#### Customer Problem Statement Template:

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

<b>I am</b>	Describe customer with 3-4 key characteristics - <i>who are they?</i>	Describe the customer and their attributes here
<b>I'm trying to</b>	List their outcome or "job" the care about - <i>what are they trying to achieve?</i>	List the thing they are trying to achieve here
<b>but</b>	Describe what problems or barriers stand in the way - <i>what bothers them most?</i>	Describe the problems or barriers that get in the way here
<b>because</b>	Enter the "root cause" of why the problem or barrier exists - <i>what needs to be solved?</i>	Describe the reason the problems or barriers exist
<b>which makes me feel</b>	Describe the emotions from the customer's point of view - <i>how does it impact them emotionally?</i>	Describe the emotions the result from experiencing the problems or barriers

Reference: <https://miro.com/templates/customer-problem-statement/>

**Example:**





Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A college student	To learn latest technologies	I can't find relevant courses near me	I stay in a remote village in India	Like we must have an online learning platform that helps me learn skills I want in language I wish
PS-2	A trainer	Offer training session at very affordable prices to learners	Most online learning platforms are charging much	They contain courses created by educators who charge very high	Like we need an online learning platform where individual educators who teach at affordable prices can create courses

**Ideation Phase**  
**Empathize & Discover**

Date	30 JUNE 2025
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Maximum Marks	4 Marks

**Empathy Map Canvas:**

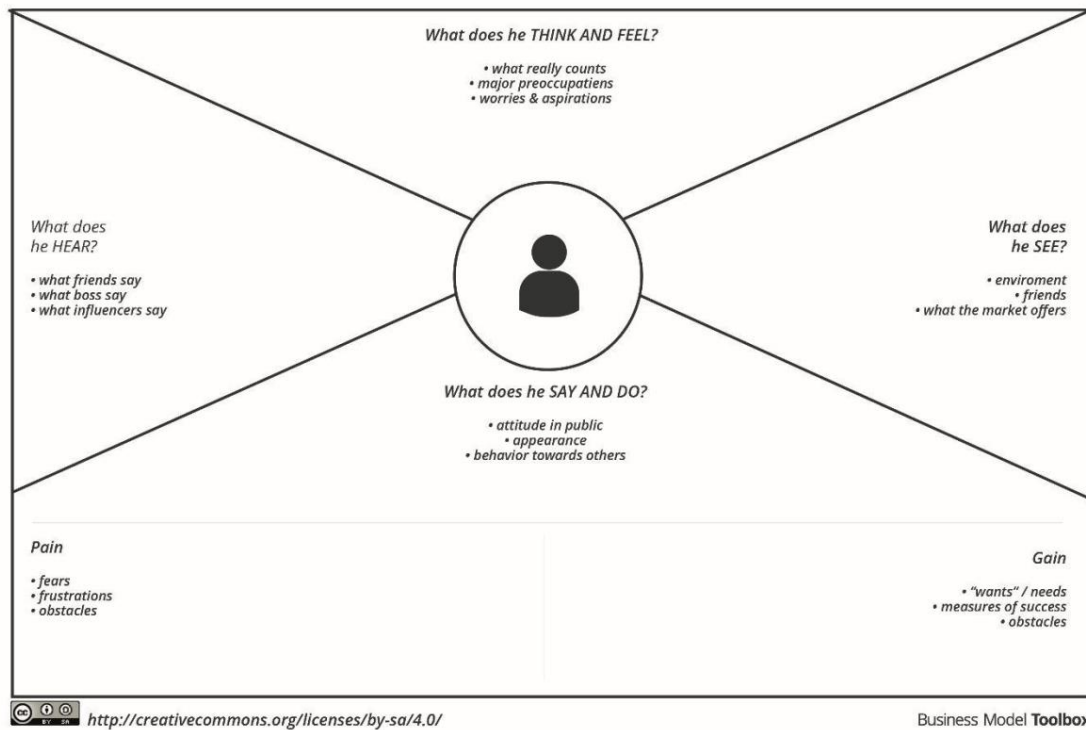
An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes.

It is a useful tool to help teams better understand their users.

Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

**Example:**

## Empathy Map



Reference: <https://www.mural.co/templates/empathy-map-canvas>

**Example: LearnHub**



#### Says

What have we heard them say?  
What can we imagine them saying?

They say they want to learn latest technologies at the comfort of their home.

#### Thinks

What are their wants, needs, hopes, and dreams?  
What other thoughts might influence their behavior?



Which online platforms offer affordable courses in regional languages?



Alexa

A student

Searches online for various platforms that offer latest courses.

Like there must be a platform that teaches latest technologies in regional language.



#### Does

What behavior have we observed?  
What can we imagine them doing?

#### Feels

What are their fears, frustrations, and anxieties?  
What other feelings might influence their behavior?



[See an example](#)

**Project Design Phase**  
**Problem – Solution Fit Template**

Date	30 JUNE 2025
Team ID	LTVIP2025TMID52558
Project Name	Learn Hub
Maximum Marks	2 Marks

**Problem – Solution Fit Template:**

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioural patterns and recognize what would work and why

**Purpose:**

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behaviour.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- **Understand the existing situation in order to improve it for your target group.**

**Problem Statement:**

Many educators and learners face many challenges in finding a single platform that offers:

- Latest technology courses online
- Platform where individual educators create courses at affordable prices
- Find and learn latest technology courses in regional languages

- Automatic certificate generation once course is completed

**Solution:**

“Learn Hub”, an online learning platform, will provide:

- Latest technology courses online at the comfort of home
- Platform where individual educators can create course content and monetize it at affordable prices for students across the world
- Same concepts but in various regional languages
- Certificate generation using pdf packages

**Project Design Phase**  
**Proposed Solution Template**

Date	30 JUNE 2025
Team ID	LTVIP2025TMID52558
Project Name	Learn Hub
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Learners can't find the latest technology courses online to learn at home. Individual educators can't create affordable courses for learners.
2.	Idea / Solution description	A platform where learners can learn courses online which are created by individual educators.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"><li>• Individual Educators</li><li>• Cross platform support(Mobile, PC)</li><li>• Simple yet intuitive UI</li></ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>• Empowering education system</li><li>• Learning made affordable</li><li>• Educated society</li></ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>• Freemium Model with Ads</li><li>• Partnership Fee</li></ul>
6.	Scalability of the Solution	Can be expanded globally by integrating APIs from other LMS systems

## Project Planning Phase

### Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	30 JUNE 2025
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Project Name	Learn Hub
Maximum Marks	5 Marks

### Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	User Registration & Login	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	3	High	
	Course Enrollment	USN-2	As a learner, I can find latest technology courses and enroll in them	2	High	
Sprint-2	Educator create courses	USN-3	As an educator, I can create affordable course on the platform	3	High	
	Mark pages as complete	USN-4	As a learner, I can mark pages	2	Medium	



Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
			in chapter as complete			
Sprint-3	Courses access in multiple languages	USN-5	As a learner, I can access courses in any regional languages	3	Low	
	Upload video content in courses	USN-6	As an educator, I can create and upload video content in the platform	2	High	
Sprint-4	Generate certification	USN-7	As a learner, I can generate certification after completing a course on platform	3	High	
	Give feedback	USN-8	As a learner, I can give feedback to courses that I have learnt from	2	Medium	

**Project Tracker, Velocity & Burndown Chart: (4 Marks)**

<b>Sprint</b>	<b>Total Story Points</b>	<b>Duration</b>	<b>Sprint Start Date</b>	<b>Sprint End Date (Planned)</b>	<b>Story Points Completed (as on Planned End Date)</b>	<b>Sprint Release Date (Actual)</b>
Sprint-1	20	6 Days	22 May 2025	21 June 2025	20	22 May 2025
Sprint-2	20	6 Days	22 June 2025	21 July 2025	20	22 May 2025
Sprint-3	20	6 Days	22 July 2025	21 August 2025	20	22 May 2025
Sprint-4	20	6 Days	22 August 2025	22 September 2025	20	22 May 2025

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	30 JUNE 2025
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Project Name	Learn Hub
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Educators create courses	Create chapters, add pages in chapters, upload videos
FR-2	Learners enroll in courses	Students enroll in course, complete chapters, track progress
FR-3	Certificate generation	Certificate gets generated upon course completion
FR-4		

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

NFR No.	Non-Functional Requirement	Description
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<b>NFR-1</b>	<b>Usability</b>	The app should have an intuitive and user-friendly interface, ensuring smooth navigation and accessibility for users of all demographics.
<b>NFR-2</b>	<b>Security</b>	User authentication and data must be secured using encryption (e.g., HTTPS, OAuth for third-party logins). The app should prevent unauthorized access and follow best security practices.
<b>NFR-3</b>	<b>Reliability</b>	The app should ensure a consistent and uninterrupted music streaming experience, minimizing crashes and downtime.
<b>NFR-4</b>	<b>Performance</b>	Courses should load and stream with minimal buffering. The app should respond to user interactions (search, playback, course management) within 2 seconds.
<b>NFR-5</b>	<b>Availability</b>	The system should maintain an uptime of at least 99.9%, ensuring accessibility across different time zones.
<b>NFR-6</b>	<b>Scalability</b>	The application should handle increasing numbers of users and concurrent streams efficiently without performance degradation. The architecture should support future feature expansion.

**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

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Maximum Marks	4 Marks

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**Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

**Example: Order processing during pandemics for offline mode**

**Reference:** <https://www.coursera.org>

**Table-1: Components & Technologies:**

S. No	Component	Description	Technology
1.	User Interface	Web-based interface for Online Learning	HTML, CSS, JavaScript/ React Js etc.
2.	Application Logic-1	Creating courses by individual educators	Node js, Express js
3.	Application Logic-2	Enrolling in courses by learners or students	Node js, Express js
4.	Database	Stores course content, Users details	MongoDB

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Frontend frameworks	React js, Node js, Express js
2.	Scalable Architecture	3-tier architecture with RESTful APIs	Microservices

#### References:

[React.js Documentation](#)

[Node .js Best Practice](#)

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>

## User Acceptance Testing (UAT) Template

Date	30 JUNE 2025
Team ID	LTVIP2025TMID52558
Project Name	Learn Hub
Maximum Marks	

### Project Overview:

Project Name: Learn Hub

Project Description: An online learning platform where educators create latest technology courses and learners enrol and learn latest courses online at the comfort of their home.

Project Version: v1.0

Testing Period: May 15, 2025 - May 22, 2025

### Testing Scope:

Features and functionalities to be tested:

- Courses search & Discovery
- Enrolling in courses
- Marking pages as complete
- Track learning progress
- Educators creating courses
- Responsive UI
- Certificate generation

### Testing Environment:

URL/Location: localhost:5173

Credentials (if required): User details given at signup

### Test Cases

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail

TC-001	Create course Functionality	1. Create a course and add content in it  2. Allow enrollments	Educators must be able to create courses	[Actual Result]	[Pass/Fail]
TC-002	Video Playback (Play/Pause)	1. Click on a video  2. Click Play/Pause button	Video should start/stop playing	[Actual Result]	[Pass/Fail]
TC-003	Enrolling in a course	1. Navigate to Course CatLog  2. Click "Enrol in a course"  3. Enter Details & Save	Enrolments should be created successfully	[Actual Result]	[Pass/Fail]
TC-004	UI Responsiveness (Mobile)	1. Open app on mobile device 2. Navigate through pages	UI should be responsive and properly displayed	[Actual Result]	[Pass/Fail]

### Bug Tracking

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-001	Video playback is lagging on slow networks	1. Play a video on 3G network  2. Observe buffering issues	Medium	In Progress	Optimization required for low-speed connections
BG-002	UI overlaps on small screen devices	1. Open app on iPhone SE	Low	Open	Adjust CSS for small screens



		2. Observe overlapping UI			
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**Sign-off:**

Tester Name: [Name of Tester]

Date: [Date of Test Completion]

Signature: [Tester's Signature]

**Notes:**

- Ensure that all test cases cover both positive and negative scenarios.
- Encourage testers to provide detailed feedback, including any suggestions for improvement.
- Bug tracking should include details such as severity, status, and steps to reproduce.
- Obtain sign-off from both the project manager and product owner before proceeding with deployment.

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