

Project Design Phase

Problem – Solution Fit Template

Date	14 Feb 2026
Team ID	LTVIP2026TMIDS64190
Project Name	LearnHub: Your Center for Skill Enhancement
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem–Solution Fit means identifying a real problem faced by users and developing a solution that effectively addresses those problems. It ensures that the developed system aligns with user needs and improves their overall experience.

Purpose:

- ❑ Solve real-world challenges in digital education by providing a secure, structured, and user-friendly Learning Management System tailored to students, teachers, and administrators.
- ❑ Increase platform adoption by aligning the solution with existing user behaviors such as online learning, self-paced study, and digital course enrollment.
- ❑ Improve communication and engagement by delivering clear course structures, secure authentication, and transparent enrollment workflows.
- ❑ Enhance user trust and interaction by solving common problems such as insecure access, lack of progress tracking, and absence of certification proof.
- ❑ Understand the current limitations of online learning systems and continuously improve the platform to better serve the target audience.

Template:

CUSTOMER SEGMENT(S) CS College students wanting to learn new skills Teachers to share their knowledge online Administrators managing users and platform administrators	6. CUSTOMER CONSTRAINTS CC What is solutions or platforms are currently from taking action or on customers? Industries, settings and stakeholders or problems that students or extent into popular interest without lengths and details you want where you've made, what summaries or "optional" meant for concession do not use the same solutions.	5. AVAILABLE SOLUTIONS AS Which solutions or platforms are currently, say, to choose that they match plans for each other, problem where your task is to choose solving because of the case and which way user all these features, please they're not on the same? <ul style="list-style-type: none"> • Basic online learning platforms. • With limited role-based control • No verified certificates.
TO-BE-DONE / PROBLEMS J&P To-be-done (or problems / pain points) do you need to be solved? There could be on the different sides. <ul style="list-style-type: none"> • New skills but cannot track progress. • Hard to upload video courses, but lack simple forms. • No user access, but lack safety controls. 	9. PROBLEM ROOT CAUSE RC What is the root reason why these jobs / problems exist? What is the reason they can't get done and another job basis? <ul style="list-style-type: none"> • Basic online learning platforms. • Complex or overly technical system and usability. • Disorganized course management and role controls. 	7. BEHAVIOUR BE What does your customer do or address the problem and get the job done? (i.e., checks), steps or circumventing their behavior that they currently use because of this. <ul style="list-style-type: none"> • Direct: Use basic online learning platforms. • Indirect: Avoid online learning or use work. Cons: Unverified certificates, Data breach risk. Poor user and course management data.
ROOTS TR Root causes to act? Root cause or behavior in the news. <ul style="list-style-type: none"> • Hard to learn new skills, grow career. • Share knowledge wider. • Ensure platform security and user safety. 	10. YOUR SOLUTION SL LearnHub is a secure, structured online learning platform built on a scalable MERN stack. We're going to register, log in and refresh video courses. Teachers, students, instructors (teacher, set, enrollment, and teacher administrators, for learning or get (problem)). <ul style="list-style-type: none"> • LearnHub is a secure, structured online learning platform • Securely register, log in, and refresh user sessions. • Teachers easily upload and manage video courses. 	7. CHANNELS of BEHAVIOUR CH 3.1. ONLINE <ul style="list-style-type: none"> • Search for online learning platforms. • Read online reviews, look at features. Cons: <ul style="list-style-type: none"> • Unverified certificates, data breach risk. • Risky to try new, unverified platforms.
ROOTS EM Root cause to change, how they recognize / root cause or behavior in the news. <ul style="list-style-type: none"> • Need for skill enhancement. • About platform safety and security. 	10. YOUR SOLUTION SL LearnHub is a secure, structured online learning platform built on a scalable MERN Stack. <ul style="list-style-type: none"> • Securely register, log in, and refresh user sessions. • Teachers easily upload and manage video courses. 	8. CHANNELS of BEHAVIOUR CH 3.1. ONLINE: Search online platforms. REONLINE <ul style="list-style-type: none"> • Ask friends or peers for recommendations.
ROOTS EM Root cause to change, how they recognize / root cause or behavior in the news. <ul style="list-style-type: none"> • Need for skill enhancement. • About platform safety and security. 	10. YOUR SOLUTION SL LearnHub is a secure, structured online learning platform built on a scalable MERN Stack. <ul style="list-style-type: none"> • Provides, easy-to-use, secure, and organized online learning. Fit to the job: unique, secure, powered learning platform 	8. CHANNELS of BEHAVIOUR CH <ul style="list-style-type: none"> • Search online learning platforms. • Risky to try new, unverified platforms.
Define CS, fit into CC	Focus on J&P, fit into CC	Explore AS, differentiate
Extract Actionables FR & PR		

Problem–Solution Fit Template

1. CUSTOMER SEGMENT(S)

- Students seeking structured online learning
- Teachers who want to create and manage digital courses
- Administrators managing course approvals and system control
- Educational institutions looking for scalable LMS solutions

2. JOBS-TO-BE-DONE / PROBLEMS

- Access secure and structured online courses
- Track course progress effectively
- Receive certification after completion
- Manage video course content easily (for teachers)
- Prevent unauthorized access to paid courses
- Ensure role-based system control

3. TRIGGERS

- Growth of online learning demand
- Need for remote education solutions
- Increasing requirement for skill-based certification
- Institutions adopting digital learning systems

4. EMOTIONS: BEFORE / AFTER

Before: Confused, unorganized learning, lack of security, no proof of completion.

After: Confident, structured learning, secure access, motivated with certification.

5. AVAILABLE SOLUTIONS

- Basic video-sharing platforms
- Static course websites
- LMS without proper authentication or payment control

CONS:

- No structured progress tracking
- No secure enrollment system
- No automated certificate generation

6. CUSTOMER CONSTRAINTS

- Limited budget for premium LMS platforms
- Limited technical knowledge
- Concerns about payment security
- Resistance to adopting new systems

7. BEHAVIOUR

Direct:

- Register and log in
- Browse and enroll in courses
- Watch videos and complete lessons

Indirect:

- Share certificates on social platforms
- Recommend courses to peers

8. CHANNELS of BEHAVIOUR

8.1 ONLINE

- Web browser access
- Course dashboards
- Certificate downloads
- Online enrollment and payments

8.2 OFFLINE

- Word-of-mouth recommendations
- Institutional usage

9. PROBLEM ROOT CAUSE

Online learning platforms often lack integration between authentication, payment verification, structured course management, progress tracking, and certification. The root cause is the absence of a unified and secure full-stack system.

10. YOUR SOLUTION

LearnHub – A MERN-based Learning Management System that:

- Implements secure JWT authentication
- Provides role-based access control
- Supports structured video course management
- Verifies payment before enrollment
- Tracks section-wise progress
- Automatically generates certificates
- Ensures scalable and modular architecture