

## 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:**

<b>1. FOMER SEGMENT(S)</b> <b>CS</b> customer? lege students wanting learn new soikils chre teoders to share ynew/kolegdeee online. ministrators managing users and torm administrators	<b>6. CUSTOMER CONSTRAINTS</b> <b>CC</b> What is solutions or platforms erree currently from taking action on customers? Instutes, soatige and shatsfms or seotoms that smes or extent ista poool tntect vious lengs and cheata yewus when avareen made, wact sumnes or... optond, remant for conissom do yot usige lompassistonts.	<b>5. AVAILABLE SOLUTIONS</b> <b>AS</b> Which solutions or platforms are currerrens, sat, to choose that they machen phins feach elton, problem Where curc lusk is seaches solutin beacne hle case and whichy user all thie leamies, plepco athey hearor szelsot?
<b>2. BS-TO-BE-DONE / PROBLEMS</b> <b>J&amp;P</b> to-be-done (or problems / pain points) do ges need to be solved? There could than: e different sides:  new skills but cannot track progress. ind upload video courses, but lack simple orms. ge user access, but lack safety controls.	<b>9. PROBLEM ROOT CAUSE</b> <b>RC</b> What is the root reason why these jobs / problems exist? What is the reason they can't get done and another job basis?  • Basic online learning platforms. • Complex or overly technical system had usability. • Disorganized course management and role controls.	<b>7. BEHAVIOUR</b> <b>BE</b> What does your customer do or address the problem and get the job done? i.e., check(s), step or circumnavigating their behavior that they currently use because of mes).  • <b>Direct:</b> Use basic online learning platforms. • <b>Indirect:</b> Avoid online learning or use work.  <b>Cons:</b> Unverified certificates, Data breach risk. Poor user and course management datases.
<b>3. RS</b> or causes to act? derent add or behaviors in the news.  id to learn new skills, grow career. share knowledge wider. nsure platform security and used user safety.	<b>10. YOUR SOLUTION</b> <b>SL</b> LearnHub is a secure, structured online learning platform built on a scalable MERN stack. MERN stack register, log in, new refresh video courses, Teachers, student Institute, deliver, set emerence, met leatu, administrators, forcomiung or get (problem).  • LearnHub is a secure, structured online learning platform • Securely register, log in, and refresh user sessions. • Teachers easily upload and manage video courses.	<b>7. CHANNELS OF BEHAVIOUR</b> <b>CH</b> 3.1.ONLINE • Search for online learning platforms. • Read online reviews, look at features.  <b>Cons:</b> • Unverified certificates, data breach risk. • Risky to try new, unverified platforms.
<b>4. EM</b> customer to change, how they recognise / mets / differentiaiget for project needcaer (eches peanting smates).	<b>10. YOUR SOLUTION</b> <b>SL</b> LearnHub is a secure, structured online learning platform built on a scalable MERN Stack.  • Securely register, log in, and refresh user sessions. • Teachers easily upload and manage video courses.	<b>8. CHANNELS OF BEHAVIOUR</b> <b>CH</b> 3.1.ONLINE: Seaaot online platforms. REONLINE • Ask friends or peers for recommendations.
<b>5. RS</b> he customer to change rierar nisno problem / andueises -swilc, ganzalchenmt, inpolents nro platforms.	<b>10. YOUR SOLUTION</b> <b>SL</b> • Provides, easy-to-use, cure, and organized online learning. Fit to the job: univel, stucture, pverified learning platform	<b>8. CHANNELS OF BEHAVIOUR</b> <b>CH</b> • Search online learning platforms. • Risky to thy relav, bixes thei plabem fat booms.
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