# Project Design Phase
## Problem – Solution Fit Template

| Date | 14 Feb 2026 |
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| 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:**

# 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