

Project Design Phase
Problem – Solution Fit Template

Date	04 February 2026
Team ID	LTVIP2026TMIDS56565
Project Name	Rising Waters: A Machine Learning Approach to Flood Prediction
Maximum Marks	2 Marks

Problem – Solution Fit:

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 behavioral patterns and recognize what would work and why.

Purpose:

1. **Customer Segment(s):** Government disaster management authorities, residents in flood-prone areas, and urban infrastructure planners.
2. **Jobs-to-be-done / Problems:** Predicting flood occurrences with high accuracy and providing actionable insights to minimize impact.
3. **Triggers:** Rapidly rising river levels, heavy seasonal rainfall alerts, or previous history of floods in the area.
4. **Emotions (Before/After): Before:** Anxious and unprepared due to uncertainty. **After:** Informed and proactive due to timely alerts.
5. **Available Solutions:** Manual monitoring of river gauges or general weather reports which may not provide specific flood risk classification.
6. **Problem Root Cause:** Lack of automated tools that can simultaneously analyze rainfall, humidity, river discharge, and terrain information.
7. **Your Solution:** A machine learning model that achieves **88.75% accuracy** and provides real-time classification through an easy-to-use UI.

Template:

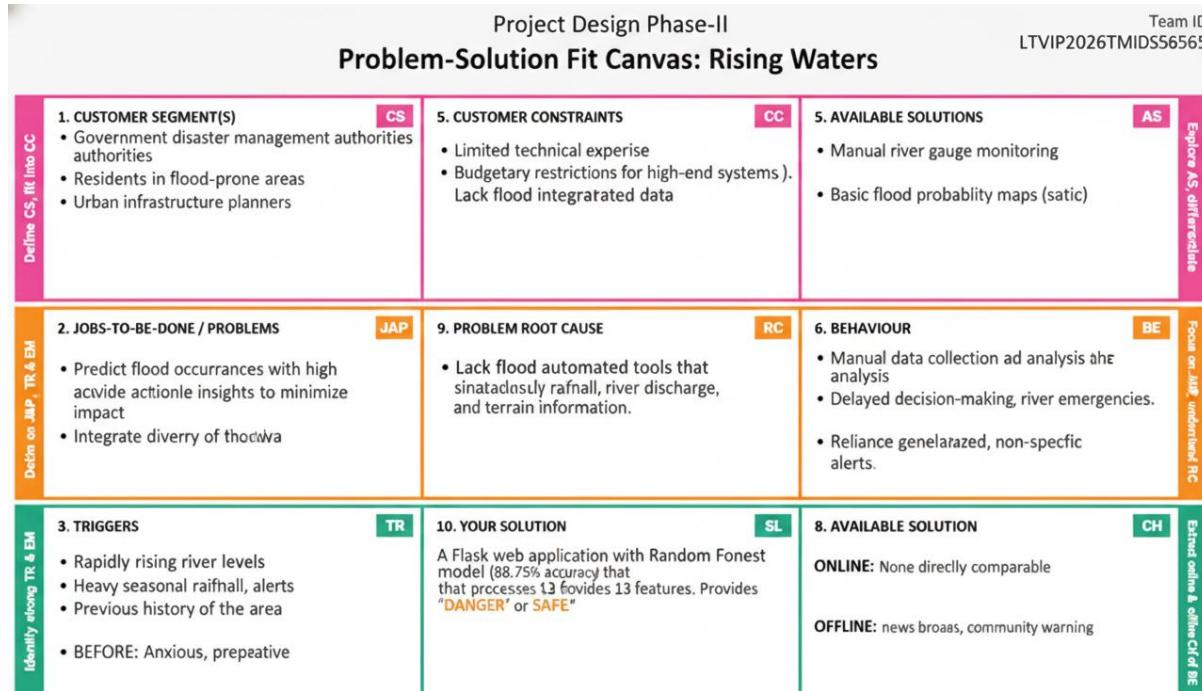


Fig. 4: Problem-Solution Fit Canvas for Rising Waters. This illustrates alignment between customer problems and ML-based web application solution.