Project Design Phase
Problem – Solution Fit Template

Date	28 January 2026
Team ID	LTVIP2026TMIDS66669
Project Name	Visualization of Housing Market Trends
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): Real estate agencies, property investment firms (like ABC Company), urban planners, marketing teams, and property buyers and sellers who need data-driven market insights.

2. Jobs-to-be-done / Problems: Visualizing and interpreting housing market trends — including the impact of renovation history, house age, and structural features on sale prices — to inform strategic pricing and investment decisions.

3. Triggers: Declining market competitiveness due to uninformed pricing strategies, management requests for data-driven market reports, or the need to evaluate renovation ROI before property acquisition or sale.

4. Emotions (Before/After): Before: Frustrated and uncertain due to static, non-interactive market reports that fail to communicate trends clearly. After: Confident and proactive due to interactive Tableau dashboards that reveal actionable patterns in housing data.

5. Available Solutions: Static Excel-based market reports, generic property listing analytics, or non-customized business intelligence tools that do not specifically address housing feature analysis or renovation impact visualization.

6. Problem Root Cause: Lack of interactive, purpose-built visualization tools that can simultaneously analyze renovation history, house age distribution, sale prices, and structural features (bathrooms,

bedrooms, floors) in a single integrated dashboard.

7. Your Solution: A Tableau dashboard with 4 unique visualizations and a 3-scene story, achieving comprehensive housing market insight. Embedded in a Flask web application for browser-based access without Tableau Desktop installation.

Template:

1. CUSTOMER SEGMENT(S) CS • Real estate agencies / ABC Company • Property investment firms • Urban planners and developers • Property buyers and sellers	5. CUSTOMER CONSTRAINTS CC • Limited Tableau expertise in teams • No budget for enterprise BI tools • Lack of structured, visualization-ready housing datasets	5. AVAILABLE SOLUTIONS AS • Static Excel reports and pivot tables • Generic property listing analytics • Basic non-interactive chart tools (static graphs)
2. JOBS-TO-BE-DONE / PROBLEMS JAP • Visualize renovation impact on sale prices • Understand house age distribution trends • Identify structural feature patterns across age groups	**9. PROBLEM ROOT CAUSE RC** • Lack of interactive tools that analyze renovation history, house age, sale prices, and structural features simultaneously	**6. BEHAVIOUR BE** • Manual review of housing CSVs in Excel • Static PowerPoint presentations to management with no drill-down • Delayed and reactive pricing decisions
3. TRIGGERS TR • Management request for market trend report • Need to evaluate renovation ROI before property acquisition • Declining pricing competitiveness • BEFORE: Frustrated, uncertain	**10. YOUR SOLUTION SL** A Tableau dashboard with 4 visualizations and a 3-scene story embedded in a Flask web app. Covers Overall Overview, Renovation Sales, House Age Distribution, and Feature Analysis with interactive Top-N filters.	**8. AVAILABLE SOLUTION CH ONLINE:** No directly comparable open-source housing market Tableau dashboard **OFFLINE:** Static market reports, generic BI tools not tailored to housing data

Fig. 4: Problem-Solution Fit Canvas for House Market Trends. This illustrates alignment between customer problems and the Tableau-based web application solution.