Project Title: Analytics For Hospital's Health-Care Data **Project Design Phase-I - Solution Fit Template** **Team ID:** PNT2022TMI30183

Define CS, fit

1. CUSTOMER SEGMENT(S)

- Patients
- Hospital Management

6. CUSTOMER CONSTRAINTS

Customers require more accurate and early predictions of Length of Stay (LOS).

5. AVAILABLE SOLUTIONS

There are few Length of Stay prediction model available which lacks in predicting some exceptional case where the length of stay may extend.

Explore AS,

Focus on J&P, tap

2. JOBS-TO-BE-DONE / PROBLEMS

Length of stay prediction may vary based on the patient's stage/severity of disease. Patient may get dissatisfied if there is no bed availability.

9. PROBLEM ROOT CAUSE

Unpredictable length of stay and improper medical records are the root cause of the problem.

7. BEHAVIOUR

Developing a model which predicts the length of stay of unexceptional cases with better accuracy.

Focus on J&P, tap

Identify strong TR & EM

3. TRIGGERS

To accurately predict the length of stay.

4. EMOTIONS: BEFORE / AFTER

Before : Pateints often get frustrated and depressed.

After: They feel better and get new beginning.

10. YOUR SOLUTION

Our solution includes using algorithms like Fuzzy Logic, Tree Bagger, Random Forest, and Decision Trees to predict the length of stay more accurately. Gives frequent update about the bed availability.

8. CHANNELS of BEHAVIOUR

Users will check for bed availability.

Identify strong TR & EM