Project Title: Analytics for hospitals' healthcare data **Project Design Phase-I - Solution Fit Template** **Team ID:** PNT2022TMID17917

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

1. Patients
2. Hospital Management

6. CUSTOMER CONSTRAINTS

Inadequate availability of information about resources availability and analysis of the system.

5. AVAILABLE SOLUTIONS

1. Text Mining
2. General analysis
3. Insight gaining by humans

Explore AS, differentia

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS

1. Analysis of patients' healthcare records
2. Predict length of stay for patients

9. PROBLEM ROOT CAUSE RC

1. Solutions are generated only using the available data and no new features are extracted to get more meaningful information.
2. Usage of less efficient prediction system.

7. BEHAVIOUR

Tracking the information with available technologies and organizing them to gain insights which can then be used to make predictions.

Focus on J&P, tap into BE, understand RC

Identif

3. TRIGGERS

1. Disease outbreak
2. Emergency situations

4. EMOTIONS: BEFORE / AFTER

Before :

Patient - Not satisfied with the healthcare treatment received

Hospital Management – Not able to manage the available resources in an efficient way as they do not know what to expect in the future.

After :

Patient : Satisfied with the healthcare treatment received

Hospital Management – Able to manage the available resources in a more efficient way as they could be more prepared using the knowledge of the prediction result obtained.

10. YOUR SOLUTION

A prediction analysis could be made using machine learning models which could predict the length of stay of the patients in a particular hospital based on features like severity of the case, age of patient, bed availability, etc. This could in turn enable the hospital management to organize their resources better to ensure availability making optimal use of it.

8. CHANNELS of BEHAVIOUR

The generated system uses data collected from a particular locality and thus produces data based on that. If it is to be made dynamic, then a way must be formulated to enter the healthcare records form various regions onto a single database periodically which could then be retrieved in runtime to produce models with updated details.