

## Project Design Phase-I - Solution Fit Template

**Project Title:** Analytics for Hospitals' Health-Care Data

**Team ID:** PNT2022TMID04231

Define CS, fit into CC	<p><b>1. CUSTOMER SEGMENT(S)</b></p> <ul style="list-style-type: none"><li>• Hospital Managements <b>C</b></li><li>• Patients</li></ul>	<p><b>6. CUSTOMER CONSTRAINTS</b></p> <ul style="list-style-type: none"><li>▪ Customers require more accurate and early predictions of Length of Stay (LOS).</li><li>▪ Inadequate information about availability of required resource</li></ul>	<p><b>5. AVAILABLE SOLUTIONS</b></p> <ul style="list-style-type: none"><li>➤ Text Mining</li><li>➤ General analysis</li><li>➤ Insight gaining by humans</li></ul>	Explore AS, differentiate
Focus on J&P, tap into BE, understand RC	<p><b>2. JOBS-TO-BE-DONE / PROBLEMS</b></p> <ul style="list-style-type: none"><li>1. Analysis of patients' healthcare records</li><li>2. Predict length of stay for patients</li></ul>	<p><b>9. PROBLEM ROOT CAUSE</b> <b>RC</b></p> <ul style="list-style-type: none"><li>1. Solutions are generated only using the available data and no new features are extracted to get more meaningful information.</li><li>2. Usage of less efficient prediction system.</li></ul>	<p><b>7. BEHAVIOUR</b> <b>BE</b></p> <ul style="list-style-type: none"><li>❖ Tracking the information with available technologies and organizing them to gain insights which can then be used to make predictions.</li><li>❖ Developing a model which predicts the length of stay of unexceptional cases with better accuracy.</li></ul>	Focus on J&P, tap into BE, understand RC

<p><b>3. TRIGGERS</b> <span>TR</span></p> <ul style="list-style-type: none"> <li>✓ Covid Pandemic</li> <li>✓ Emergency Situations</li> </ul>	<p><b>10. YOUR SOLUTION</b> <span>SL</span></p> <p>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.</p>	<p><b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span></p> <p>ONLINE: Use of data from all region(data Exploration)</p> <p>OFFLINE: Use of data Collect from nearby facilities</p>
<p><b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span></p> <p>Before :</p> <p>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.</p> <p>After :</p> <p>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.</p>		