

PROJECT DESIGN PHASE – I

PROBLEM SOLUTION FIT

DATE	11 November 2022
PROJECT NAME	SmartFarmer – IoT enabled smart farming applications
TEAM ID	PNT2022TMID00236

Define CS, Fit in to CC	1. CUSTOMER SEGMENT CS <p>Farmers who grow crops are the target market for this product. Our goal is to help them remotely monitor the field parameters and maintain a record of the parameters.</p>	6. CUSTOMER CONSTRAINT CC <p>It is challenging to deploy a large number of sensors. For it to be effective, a limitless or ongoing internet connection is necessary.</p>	5. AVAILABLE SOLUTIONS AS <p>Cameras can be used to monitor the live field 24/7. But the disadvantage is that it is difficult to send and organize all the recordings.</p>	Explore AS, Differentiate

Focus on J&P, tap into BE, understand RC	2. JOBS-TO-BE-DONE/PROBLEM J&P <p>The goal of this product is to collect various field parameters using sensors and process them using a central processing system. The cloud is used to store and transmit data via IoT. Weather APIs are used to help farmers make decisions. A farmer could make a decision using a mobile</p>	9. PROBLEM ROOT CAUSE RC <p>The farmers found it challenging to practice agriculture because of the frequently changing or unpredictable weather and climate. These elements are crucial in deciding whether or not to water the plant. When the farmer is away from the farm, it is difficult to monitor the field, which can result in crop damage.</p>	7. BEHAVIOUR BE <p>utilizing a suitable drainage system to combat the effects of too much water from a heavy downpour. utilizing crop hybrids with pest-resistant tr</p>	Focus on J&P, tap into BE, understand RC

Identify strong TR & EM	3. TRIGGERS TR <p>Farmers are having difficulty providing adequate irrigation. Water scarcity leads to decreased production, which reduces the farmer's profit margin.</p>	10. YOUR SOLUTION SL <p>Our product collects data from various types of sensors and sends it to the main server. It also gets weather data from OpenWeather API. The farmer makes the final decision on whether or not to water the crop using a mobile application.</p>	8. CHANNELS of BEHAVIOUR CH <p>1.ONLINE Providing online assistance to farmers by providing information about the pH and moisture level of the soil. The user will receive online assistance in using the product. 2.OFFLINE Awareness camps will be held to teach the importance and benefits of automation and IoT in agricultural development.</p>	Identify strong TR & EM
	4. EMOTIONS: BEFORE / AFTER EM <p>BEFORE: cannot monitor the field all the time. AFTER: can monitor the field all the time and can irrigate the crops remotely.</p>			