

Project Design Phase-I - Solution Fit Template

Team ID : PNT2022TMID12810
Project Title : SmartFarmer - IoT Enabled Smart Farming Application

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS Farmers who raise crops are the targeted customers for this product. Our intention is to assist them by remotely monitoring field conditions. This product prevents the demise of agriculture.	6. CUSTOMER CONSTRAINTS CC Using numerous sensors is challenging. For success, you must have limitless or constant internet access.	5. AVAILABLE SOLUTIONS AS Using IoT technology, the irrigation process is automated. To automate the watering operation, field parameters and meteorological data were gathered and processed. Efficiency is limited over small distances, and data storage is challenging.	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS J&P The purpose of this product is to use IoT sensors to collect environmental parameters, so that farmers can improve every aspect of their work from livestock to crop farming. The data collected from the sensor will be processed and updated in IoT Cloud. MQTT protocol is used to send shared data with the farmers via Mobile apps so that farmers can make decisions.	9. PROBLEM ROOT CAUSE RC Farmers found it challenging to pursue agriculture because of the frequently changing and unpredictable weather and climate. Considering these elements is crucial when determining whether to water your plants. When a farmer is not there, it is difficult to supervise the fields, which results in crop damage.	7. BEHAVIOUR BE To counteract the consequences of extra water from heavy rain, use a suitable drainage system. The use of pest-resistant hybrid plants.	
	Focus on J&P, tap into BE, understand RC			

<div>3. TRIGGERS</div> <div>TR</div> <div>It is difficult for farmers to predict sufficient irrigation. Reduced yields and lower profits are consequences of inadequate water supplies for farmers. Weather forecasting is difficult to predict for farmers.</div>	<div>10. YOUR SOLUTION</div> <div>SL</div> <div>Our product gathers information from several sensor kinds and transmits the values to our main server. The Weather API is also used to gather weather information. The farmer uses a smartphone application to make the final decision regarding irrigation of the crop.</div>	<div>8. CHANNELS of BEHAVIOUR</div> <div>CH</div> <div><div>8.1 ONLINE</div><div>Giving the farmer access to information about the pH and moisture content of the soil by way of the internet. The user will receive online help for utilising the product.</div></div> <div><div>8.2 OFFLINE</div><div>Education camps will be held to spread awareness of the value and benefits of automation and IoT in the advancement of agriculture.</div></div>
<div>4. EMOTIONS: BEFORE / AFTER</div> <div>EM</div> <div><div>BEFORE: Poor predicting skills, haphazard decisions, and low yield.</div><div>AFTER: Reliable data, a wise choice, and a great yield.</div></div>		