

## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	14 October 2022
Team ID	PNT2022TMID43471
Project Name	Smart Farmer – IOT Enabled Smart Farming Application
Maximum Marks	4 Marks

into CC  Focus on J&P, tap into BE, understand RC	CUSTOMER EGME ( )	CUIS MFR	5. AVAILABLE SOLUTIONS	differentiate  Focus on J&P, tap into BE, understand RC
	<p><b>Who is your customer?</b> i.e. working parents of 0-5 y-old. kids</p> <div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>A farmer who raises crops is the target market for this product. Our intention is to assist them by remotely monitoring field conditions. this product prevents the demise of agriculture.</p> </div>	<p>their choices</p> <p><b>6.OCS</b></p> <p>What constraints prevent your customers from taking action or limit of solutions? i.e. spending power, budget, no cash, network connection, available devices.</p> <div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>It is challenging to use many sensors. Success requires an unrestricted or ongoing internet connection.</p> </div>	<p><b>AS</b></p> <p>Which solutions are available to the customer when they face the problem</p> <p>or need to get the job done? What have they tried in the past? What pros &amp; cons do these solutions have? i.e. pen and paper</p> <div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>Using IOT, 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.</p> </div>	
Focus on J&P, tap into BE, understand RC	1. JOBS-TO-BE-DONE / PROBLEMS	9. ROBLE ROOL	7. BEHAVIOUR	Focus on J&P, tap into BE, understand RC
	<p><b>J&amp;P</b></p> <p>Which jobs-to-be-done (or problems) do you address for it</p>	<p><b>RC</b></p> <p>What is the real reason that this problem exists? What is the back story behind the need to do this job?</p>	<p><b>BE</b></p> <p>What does your customer do to address the problem and get the job done?</p> <p>ire directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend freetime on volunteering work (i.e. Green peace)</p>	

this product's function is to employ sensors to collect different field parameters and then process them using a centralized processing system. IOT uses the cloud to send and store data. Farmers utilize the Weather API to aid in choice.

With the use of mobile applications, farmer makes judge.

It was hard for farmers to perform agriculture because of the often changing and uncertain weather and climate. When deciding whether to water your plants, these factors are crucial. When a farmer isn't there, it's hard to keep an eye on the field, which can cause crop damage.

to counteract the consequences of extra water from heavy rain, use a suitable drainage system. the use of pest-resistant hybrid plants.

<div data-bbox="152 245 291 271"><b>3. TRIGGERS</b></div> <div data-bbox="723 240 779 272"><b>TR</b></div> <div data-bbox="152 279 674 322"><p>What triggers customers to act? i.e., seeing their neighbor installing solar panels, reading about a more efficient solution in the news.</p></div> <div data-bbox="129 336 781 537"><p>Farmers struggle to provide adequate irrigation. Inadequate water supply reduces yields and affects farmers' profit levels. Farmers have a hardtime predicting the weather.</p></div> <div data-bbox="152 560 533 585"><b>4. EMOTIONS: BEFORE / AFTER</b></div> <div data-bbox="723 555 768 587"><b>EM</b></div> <div data-bbox="152 592 730 633"><p>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.</p></div> <div data-bbox="159 686 750 914"><p>BEFORE: Lack of knowledge in weather forecasting → Random decisions → low yield. AFTER: Data from reliable source → correct decision → high yield</p></div>	<div data-bbox="835 245 1059 271"><b>10. YOUR SOLUTION</b></div> <div data-bbox="1279 240 1312 272"><b>SL</b></div> <div data-bbox="835 279 1299 395"><p>If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer's act.</p></div> <div data-bbox="831 440 1361 906"><p>Our product collects data from various types of sensors and sends the values to our main server. It also collects weather data from the Weather API. the final decision to irrigate the crop is made by the farmer using a mobile application.</p></div>	<div data-bbox="1413 245 1715 271"><b>8. CHANNELS of BEHAVIOUR</b></div> <div data-bbox="1984 240 2024 272"><b>CH</b></div> <div data-bbox="1413 279 1971 330"><p><b>8.1 ONLINE</b> What kind of actions do customer take online? Extract online channels from 7 #</p></div> <div data-bbox="1413 339 1989 406"><p><b>8.2 OFFLINE</b> What kind of actions do customers take offline? Extract Offline channels from #7 and use them for customer development.</p></div> <div data-bbox="1413 440 2024 906"><p><b>ONLINE:</b> Providing online assistance to the farmer, in providing knowledge regarding the pH and moisture level of the soil. Online assistance to be provided to the user in using the product</p><p><b>OFFLINE:</b> Awareness camps to be organized to teach the importance and advantages of the automation and IOT in the development of agriculture.</p></div>
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