Ideation Phase
Define the Problem Statements

Date	19 September 2022
Team ID	PNT2022TMID11513
Project Name	Project – IOT BASED SMART CROP PROTECTION
Maximum Marks	2 Marks

Customer Problem Statement Template:

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

I am	Describe customer with 3-4 key characteristics - who are they?	Describe the customer and their attributes here
I'm trying to	List their outcome or "job" the care about - what are they trying to achieve?	List the thing they are trying to achieve here
but	Describe what problems or barriers stand in the way – what bothers them most?	Describe the problems or barriers that get in the way here
because	Enter the "root cause" of why the problem or barrier exists – what needs to be solved?	Describe the reason the problems or barriers exist
which makes me feel	Describe the emotions from the customer's point of view – how does it impact them emotionally?	Describe the emotions the result from experiencing the problems or barriers

Reference: https://miro.com/templates/customer-problem-statement/

Example:

I am	I'm trying to	But	Because	Which makes me feel
a traveler	book flights on my phone	it takes a long time	The website is not responsive and doesn't have a mobile version	Frustrated

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Farmer	Monitoring the growing condition	It involves risk on related equipment and understand the useof technology	Requires more Knowledge and skills	irritated
PS-2	Farmer	Smart and precision irrigation	Climate changes to increased maintenance of channels	Purchasing and installing cost high	Suitable for mass crop protection

Agriculture farming is the main source of livelihood for many people in different parts of the world. But still, farmers depend on traditional methods for past years. Also, among the reasons behind the low yield of crops includes Animal intrusion, causing serious damage to the crops.

The Necessity of IoT-Based Smart Crop Protection System for Agriculture:

Crops growing on farms are many times devastated by local animals like buffaloes, cows, goats, birds, etc. This makes the farmers face a huge loss. And it's impossible to keep an eye on the field or stay on the field for the whole day and protect it

Low production of crops is one of the major issues faced by the farmers in our country. This includes two main reasons. One of them is the crops destroyed by wild and domestic animals.

Impact of this issue :

•Low productivity

The damage to the crops leads to low productivity

•Threat to animal

The electrical fences constructed are a threat to animals which gives an electric shock when animals come in contact.

When does this issue occur :

Due to deforestation, animals become homeless. The removal of trees reduces available food, shelter, and breeding habitat. Wildlife becomes fragmented, where native species must live on remaining habitat places that are surrounded by disturbed land that is being used for agriculture and other uses.

Why it is important to fix the problem :

IoT-based Smart Farming improves the entire agriculture system by monitoring the field in real-time. With the help of sensors and interconnectivity, the Internet of Things in agriculture has not only saved the time of the farmers but has also reduced the extravagant use of resources such as water and electricity and thus protecting the crops from getting destroyed.