Project Design Phase-I
Proposed Solution Template

Date	23 october 2022
Team ID	PNT2022TMID52158
Project Name	SmartFarmer - IoT Enabled Smart Farming Application
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Farmers need to increase the cultivation because their income remains very low due to low productivity
2.	Idea / Solution description	❖ An (IoT) based smart irrigation system automatically shuts off the water-pump when the soil moisture in the field rises above a set threshold level, thus preventing excessive waterlogging, thereby preventing disease and crop damage. ❖ Over-fertilizing reduces soil fertility so apply the right amount of fertilizer so It also increases the yield of crops ❖ Climate change negatively affects crop growth and yield hence by adopting modern technological methods Crops can be protected from destruction by knowing the climate
3.	Novelty / Uniqueness	Agriculture sensors provide data that helps farmers to monitor and optimize crops with environmental conditions and challenges. These sensors in agriculture installed and fixed in weather stations, drones, and robots used in the agriculture industry.
4.	Social Impact / Customer Satisfaction	❖ Monitoring crops, surveying, and mapping the fields, and providing data to farmers for rational farm management plans to save both time and money. ❖ Smart farming is designed to help farmers monitor vital information like humidity, air temperature and soil quality using remote sensors, and to improve yields, plan more efficient

		irrigation, and make harvest forecasts.
5.	Business Model (Revenue Model)	❖ Key activity ➢ Develop Website ➢ Develop Smartphone Application ➢ Develop SMS Messaging Platform ❖ Key resources ➢ Website developer ➢ Apps developer ➢ Patent right ❖ Value proportion ➢ Linking the smallholder farmers to the existing and new buyers ➢ disease tips ❖ Customer Relationships ➢ Smallholder farmers ➢ Agricultural product exporters ➢ Agricultural processing firms ❖ Revenue Streams ➢ Commission from agricultural produce exporters and processors ➢ Selling of data to agricultural researchers
6.	Scalability of the Solution	The ability to support an increasing number of connected devices, users, application features, and analytics capabilities, without any degradation in the quality of service.The IBM cloud services makes the solution more scalable.