TEAM ID: PNT2022TMID14367

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Smart Farmer - IoT Enabled Smart Farming Application

ABSTRACT:

IoT-based smart farming is a new system that improves the quantity and quality of agricultural goods. IoT devices offer details about the characteristics of farming fields and then operate in response to human input. In this article, a cutting-edge IoT-based solution for tracking the atmosphere and soil conditions for effective crop growth is given. With the help of NodeMCU and other sensors attached to it, the built system is capable of monitoring temperature, humidity, soil moisture level, and smart watering. Additionally, an SMS message regarding the field's environmental conditions will be delivered to the user's phone.

PROJECT OBJCTIVES:

1. Prerequisites:

- IBM cloud services
- Software
- MIT app inventor
- Create an account in Fast2sms dashboard

2. Project Objectives:

- Abstract

3. Create And Configure IBM Cloud Services:

- Create IBM Watson Iot Platform And Device
- Create Node- Red Service
- Create A Database In Cloudant DB

4. Develop The Python Script:

- Develop A Python Script

5. Develop A Web Application Using Node-RED Service:

- Develop The Web Application Using Node-RED

6. Ideation Phase:

- Literature Survey On The Selected Project
- Prepare Empathy Map
- Ideation & Brainstorming

7. Project Design Phase -1:

- Proposed Solution
- Prepare Solution Fit
- Solution Architecture

8. Project Design Phase -2:

- Customer journey
- Functional Requirement
- Data Flow Diagram
- Technology Architecture

9. Project planning Phase:

- Prepare Milestones & Activity List
- Sprint Delivery Plan

10. Project Development Phase:

- Project Development-Delivery Of Sprint-1
- Project Development-Delivery Of Sprint-2
- Project Development-Delivery Of Sprint-3
- Project Development-Delivery Of Sprint-4