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Smart Farmer - IoT Enabled Smart Farming Application

ABSTRACT:

Smart Farming based on IoT, this is an emerging system increases the quantity and quality of agricultural products. IoT devices provide information about nature of farming fields and then take action depending on the user's input. In this an IoT based advanced solution for monitoring the soil conditions and atmosphere for efficient crop growth is presented. The developed system is capable of monitoring temperature, humidity, soil moisture level, smart irrigation using NodeMCU and several sensors connected to it. Also, a notification in the form of SMS will be sent to the user phone about environmental conditions of the field.

PROJECT OBJECTIVES:

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