MAHENDRA INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering

Smart Farmer-IOT Enabled Smart Farming Application
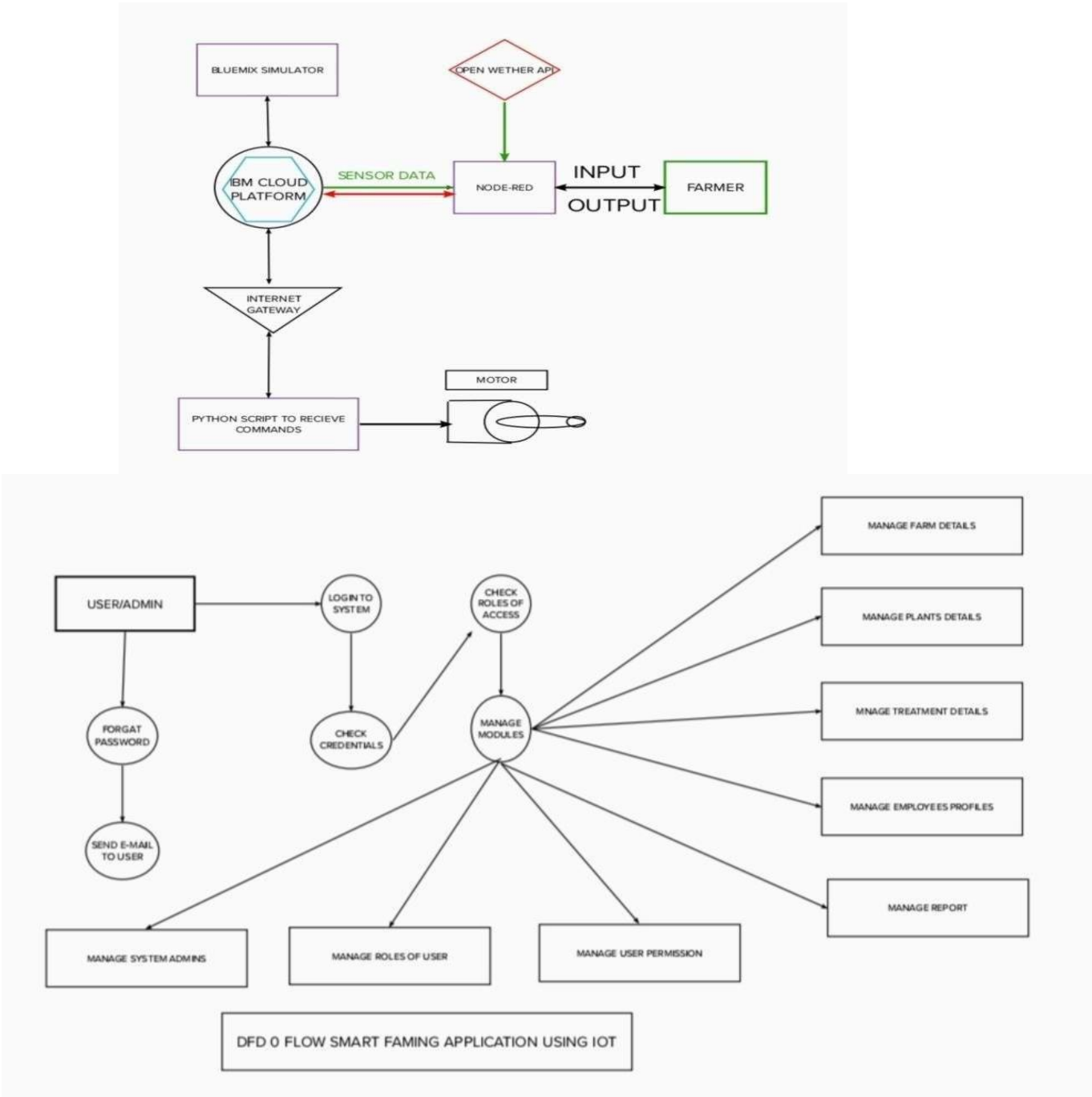
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ProjectDesignPhase -II
DataFlowDiagram&UserStories

TITLE	Smart Farmer-IOT Enabled Smart Farming Application
DOMAIN NAME	INTERNET OF THINGS
TEAM ID	PNT2022TMID17172
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DataFlowDiagrams:

ADataFlowDiagram(DFD) isatraditionalvisualrepresentationofthe informationflowswithinasystem.Aneat andclearDFDcandepicttherightamount of the system requirement graphically. It shows how data enters and

DFD 0 FLOW SMART FAMING APPLICATION USING IOT

leaves the system, what changes the information, and where data isstored.

- Thedifferentsoilparameterstemperature,soilmoisturesand thenhumidityaresensedusingdifferentsensors andobtainedvalueisstoredintheIBMcloud.

- ArduinoUNOis usedas aprocessingUnitthatprocessthedataobtainedfromthesensors and whetherdatafromtheweatherAPI.

- NODE-RED is used as a programming tool to write the hardware, software, and APIs. The MQTTprotocol is followed forthecommunication.

- All the collected data are provided to the user through a mobile application that was developed usingthe MIT appinventor.Theusercouldplanthroughanapp,weathertowaterthecropornotdependinguponthesensorvalues.Byusingtheapptheycanremotelyoperate tothemotorswitch.

UserStories

Usethebelowtemplatetolistallthe userstories fortheproduct.

UserType	FunctionalRequirement(Epic)	User StoryNumber	UserStory/Task	Acceptancecriteria	Priority	Release
Customer(Mobileuser)	Registration	USN-1	As a user, I can registerfor theapplicationby entering my email,password,andconfirmingmypassword.	Icanaccessmyaccount/dashboard	High	Sprint-1
		USN-2	As a user, I will receiveconfirmationemail onceIhaveregisteredfortheapplication	Icanreceiveconfirmationemail&clickconfirm	High	Sprint-1
		USN-3	Asauser,Icanregisterfortheapplication throughFacebook	Icanregister&accessthedashboard with FacebookLogin	Low	Sprint-2
		USN-4	Asauser,Icanregisterfortheapplication throughGmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into theapplication by entering email &password		High	Sprint-1
	Dashboard					
Customer(Webuser)						
CustomerCareExecutive						
Administrator						