Project Design Phase-II
TechnologyStack(Architecture&Stack)

Date	15 October2022
TeamID	PNT2022TMID49700
ProjectName	Project-IOTbasedsmartcropprotectionforagriculture
MaximumMarks	4Marks

TechnicalArchitecture:

TheDeliverableshallincludethearchitecturaldiagramasbelowandtheinformationasperthetable1 &table2

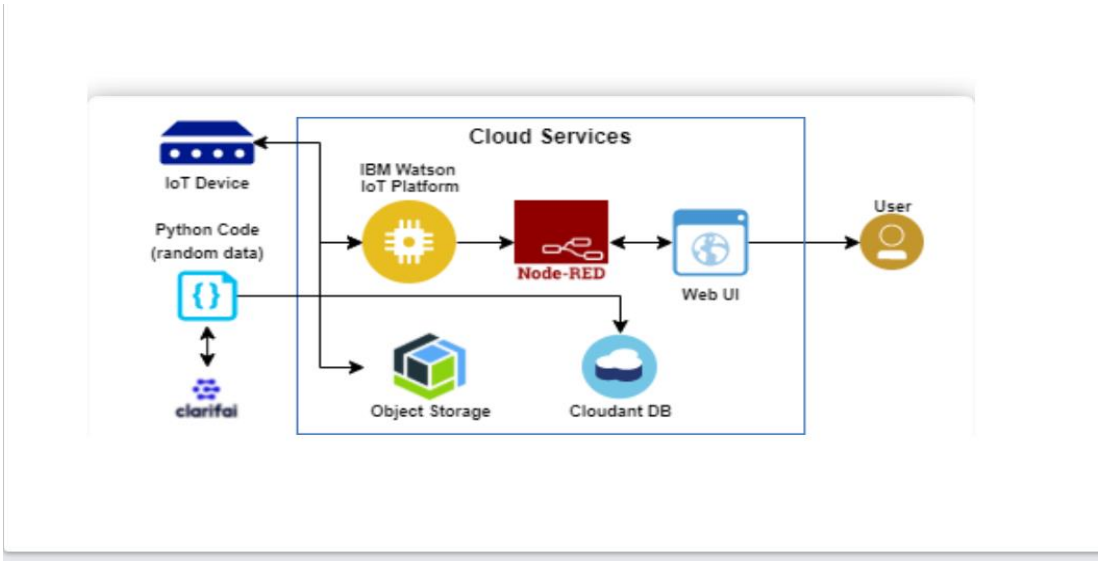

Table-1:Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	How user interacts with applicationе.g. WebUI,MobileApp,Chatbotetc.	HTML, CSS, JavaScript /AngularJs/ReactJsetc.
2.	ApplicationLogic-1	Logicforaprocessintheapplication	Java/Python
3.	ApplicationLogic-2	Logicfora processin the application	IBMWatsonSTTservice
4.	ApplicationLogic-3	Logicfora processinthe application	IBMWatsonAssistant
5.	Database	DataType,Configurationsetc.	MySQL,NoSQL,etc.
6.	CloudDatabase	DatabaseServiceonCloud	IBMDB2,IBMCloudantetc.
7.	FileStorage	Filestoragerequirements	IBMBlockStorageorOtherStorage Service or LocalFilesystem
8.	ExternalAPI-1	PurposeofExternalAPIusedinthe application	IBMWeatherAPI,etc.
9.	ExternalAPI-2	PurposeofExternalAPIusedintheapplication	AadharAPI,etc.
10	MachineLearningModel	PurposeofMachineLearningModel	ObjectRecognitionModel, etc.

11	Infrastructure(Server/Cloud)	ApplicationDeploymentonLocalSystem /Cloud Local Server Configuration:CloudServerConfiguration:	Local,CloudFoundry, Kubernetes,etc.

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Listtheopen-sourceframeworksused	TechnologyofOpensourceframework
2.	SecurityImplementations	Listallthesecurity/accesscontrolsimplemented,useoffirewallsetc.	e.g. SHA-256, Encryptions,IAMControls,OWASPetc.
3.	ScalableArchitecture	Justifythescalabilityofarchitecture(3–tier,Micro-services)	Technologyused
4.	Availability	Justifytheavailabilityofapplication (e.g. use of load balancers,distributedserver setc.)	Technologyused
5.	Performance	Design consideration for theperformance of the application(numberofrequestspersec,useof Cache,useofCDN’s)etc.	Technologyused

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