Project Design Phase-
IITechnologyStack(Architecture&Stack)

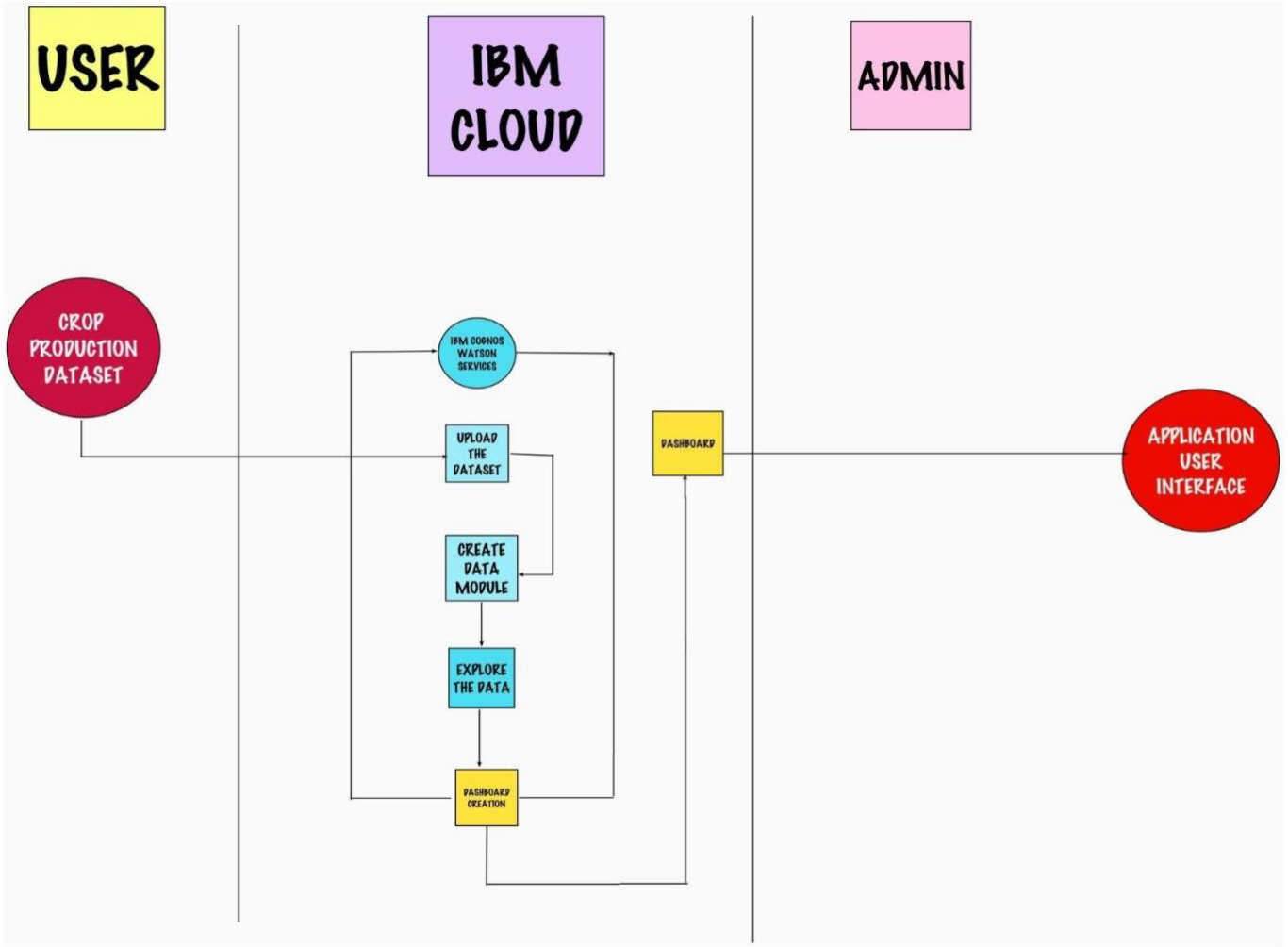
Date	03October2022
TeamID	PNT2022TMID52468
ProjectName	Project- EstimatetheCropYieldusingData Analytics
MaximumMarks	4Marks

TechnicalArchitecture:

TheDeliverableshallincludethearchitecturaldiagramasbelowandtheinformationas perthetable1&table2

Guidelines:

1. Include allthe processes(As anapplicationlogic/TechnologyBlock)
2. Provideinfrastructuraldemarcation(Local/Cloud)


USER
IBM CLOUD
ADMIN
CROP PRODUCTION DATASET
IBM COGNOS WATSON SERVICES
UPLOAD THE DATASET
CREATE DATA MODULE
EXPLORE THE DATA
DASHBOARD CREATION
DASHBOARD
APPLICATION USER INTERFACE

S.No	Component	Description	Technology
1.	UserInterface	How user interacts with application e.g.WebUI,Mobile App,Chatbotetc.	HTML, CSS, JavaScript / Angular Js /ReactJsetc.
2.	ApplicationLogic-1	Logic foraprocessinthe application	Java /Python
3.	ApplicationLogic-2	Logic foraprocessinthe application	IBMWatsonSTTservice
4.	ApplicationLogic-3	Logic foraprocessinthe application	IBMWatsonAssistant
5.	Database	DataType,Configurationsetc.	MySQL, NoSQL,etc.
6.	CloudDatabase	DatabaseServiceonCloud	IBMDB2,IBMCloudantetc.
7.	FileStorage	Filestoragerequirements	IBM Block Storage or Other StorageServiceorLocalFilesystem
8.	ExternalAPI-1	PurposeofExternalAPIusedintheapplication	IBMWeatherAPI,etc.
9.	ExternalAPI-2	PurposeofExternalAPIusedintheapplication	AadharAPI,etc.
10.	MachineLearningModel	PurposeofMachine LearningModel	ObjectRecognitionModel, etc.
11.	Infrastructure(Server/Cloud)	Application Deployment on Local System / CloudLocalServerConfiguration: CloudServerConfiguration:	Local,CloudFoundry,Kubernetes, etc.

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Listtheopen-sourceframeworksused	TechnologyofOpensourceframework
2.	SecurityImplementations	List all the security / access controls implemented,useoffirewallsetc.	e.g. SHA-256, Encryptions, IAMControls,OWASP etc.
3.	ScalableArchitecture	Justify the scalability of architecture (3 – tier,Micro-services)	Technology used

S.No	Characteristics	Description	Technology
4.	Availability	Justifytheavailability ofapplication(e.g. useofloadbalancers, distributedserversetc.)	Technology used
5.	Performance	Design consideration for the performance of theapplication(number ofrequests persec,useof Cache,useofCDN's)etc.	Technology used