Project Design Phase-II Technology Stack (Arch

itecture & Stack)

| Date	30 October 2022
TeamID	PNT2022TMID27023
ProjectName	Project- Smart Lender- Applicant Credibility forLoan Approval
MaximumMarks	4 Marks

TechnicalArchitecture:

TheDeliverableshallincludethearchitecturaldiagramasbelowandtheinformationasperthetable1&table2

Orderprocessingduringpandemicsforonline mode.

Reference:https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/

Bank Loan Approval Process
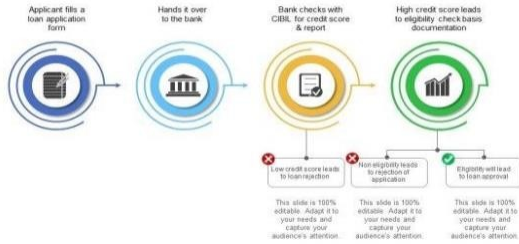
Guidelines:

1. Includealltheprocesses(Asanapplicationlogic/TechnologyBlock)
2. Provideinfrastructuraldemarcation(Local/Cloud)
3. Indicateexternalinterfaces(thirdpartyAPI'setc.)
4. IndicateDataStoragecomponents/services
5. Indicateinterfacetomachinelearningmodels(ifapplicable)

Table-1:Components &Technologies:

S.No	Component	Description	Technology
1.	UserInterface	Howuserinteractswithapplicatione.g.WebUI,MobileApp,Chatbotetc.	PythonwithappliedDatascience
2.	ApplicationLogic-1	Logicfora processin theapplication	PythonwithappliedDatascience
3.	ApplicationLogic-2	Logicfora processin theapplication	PythonwithappliedDatascience
4.	ApplicationLogic-3	Logicforaprocessin theapplication	PythonwithappliedDatascience
5.	Database	DataType,Configurationsetc.	Python
6.	CloudDatabase	DatabaseServiceonCloud	IBMDB2.
7.	FileStorage	Filestoragerequirements	IBMBlockStorageorOtherStorageServiceor LocalFilesystem

8.	ExternalAPI-1	PurposeofExternalAPIusedintheapplication	IBMBankAPI,etc.
9.	ExternalAPI-2	PurposeofExternalAPIusedintheapplication	AadharAPI,etc.
10.	MachineLearningModel	PurposeofMachineLearningModel	Datascience
11.	Infrastructure(Server/Cloud)	ApplicationDeploymentonLocalSystem/CloudLocalServer Configuration: CloudServerConfiguration:	Local,Cloudetc.

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Listtheopen-sourceframeworksused	TechnologyofOpensourceframework
2.	SecurityImplementations	List all the security / access controls implemented,use offirewallsetc.	e.g.SHA-256,Encryptions,IAMControls,OWASPetc.
3.	ScalableArchitecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technologyused
S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use ofloadbalancers,distributed serversetc.)	Technologyused
5.	Performance	Designconsiderationfortheperformanceoftheapplication(numberofrequestspersec,useof Cache) etc.	Technologyused

References:https://c4

model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/https://www.ibm.com/cloud/architecturehttps://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d