ProjectDesignPhase-
IITechnologyStack(Architecture&Stack)

Date	03 Nov 2023
TeamID	NM2023TMID08844
ProjectName	Project –Creating Blog usingWordPressPlatform(DigitalMarketing)

Technical Architecture:

The Deliverableshallinclude the architecturaldiagram asbelow andtheinformationasper the table1&table 2

Example:TechnologyStack

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

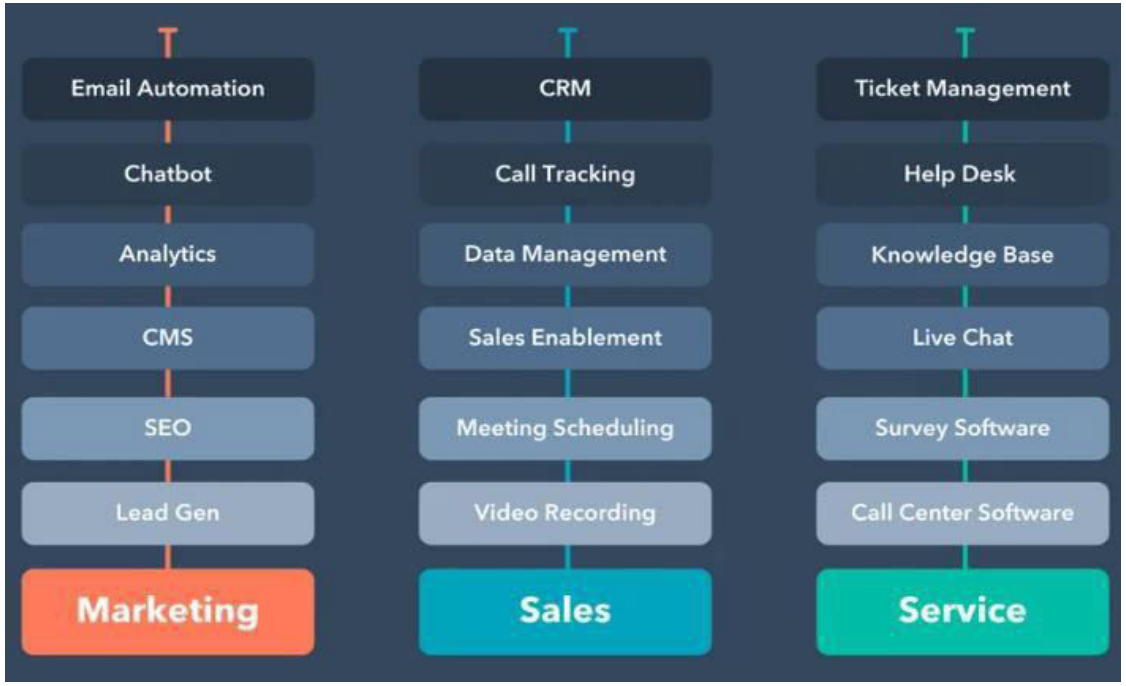

Table-1: Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	The user interface(UI)providesanintuitive anduser-friendlyplatform for users to interactwiththetechnologyknowledgecenter.	HTML,CSS,JavaScript, andfront-endframeworkslikeReact or Angular.
2.	Application Logic-1	Application logic-1encompassescorefunctionalities likecontentmanagement anduserinteractionsin	Backend technologieslikeRubyonRails,Django, or Node.js.
3.	Application Logic-2	Application logic-2includesusermanagementandpersonalized contentrecommendations forenhanced user	Custom algorithms, APIs,andserver-side scripting.
4.	Application Logic-3	Application logic-3managescollaborativetoolsanduser-generatedcontent,enablingdiscussionsandproject	Frameworksfor discussionforums (e.g.,Discourse)and projectmanagementtools.
5.	Database	The databasestores andmanagesknowledgeresources, user data,andsystem configurations.	Relational databases (e.g.,MySQL,PostgreSQL)or NoSQLdatabases(e.g.,MongoDB)fo
6.	Cloud Database	Cloud-based databases providescalable,distributeddatastorageforhighavailabilityandperformance.	Clouddatabaseserviceslike AmazonRDS orAzureCosmosDB.
7.	File Storage	File storagemanagesattachments, multimedia,and contentassets within	Cloud storagesolutions(e.g.,AmazonS3)or
8.	ExternalAPI-1	ExternalAPI-1integrates third-partydata orservices, enrichingcontentandfeatures intheknowledge center.	RESTful or GraphQLAPIs for dataretrieval andintegration.
9.	ExternalAPI-2	ExternalAPI-2connects to externalservicesforauthentication,paymentprocessing, or otheressential functions.	OAuthforauthentication, paymentgateways,andvariousRESTfulAPIs.
10.	Machine LearningModel	Machine learningmodelspower contentrecommendations,personalization,anddataanalysis to enhanceuserexperiences.	Python withmachine learningframeworkssuchasTensorFlow, scikit-learn,orPyTorch.
11.	Infrastructure(Server /Cloud)	Infrastructurecomprisestheserveror cloudenvironmentwherethe knowledgecenter ishosted, ensuringsystemstabilityandscalability.	Cloud providerslikeAWS,Azure, orGoogle Cloudfor scalableand reliablehosting infrastructure.

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-sourceframeworksenablecost-effectivedevelopment andcustomization.	RubyonRailsandWordPress.
2.	Security Implementations	Securitymeasuresprotectuserdata andpreventcyber threats.	SSL/TLS,firewalls,androle-basedaccesscontrol.
3.	Scalable Architecture	Scalable architecturesupports growthwithoutperformancedegradation.	Cloud services(e.g., AWS,Azure)andcontainerization(e.g.,D
4.	Availability	High availabilityensuresuninterruptedaccessforusers.	Load balancers,databaseclustering,and
5.	Performance	Performanceoptimizationprovidesaresponsiveus erexperience.	Caching (Redis, Memcached),CDNs,and

References:https://c4model.com/

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

https://aws.amazon.com/architecture

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