Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	18 November 2023
Team ID	PNT2022TMIDxxxxxx
Project Name	Project -
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Order processing during pandemics for offline mode

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/
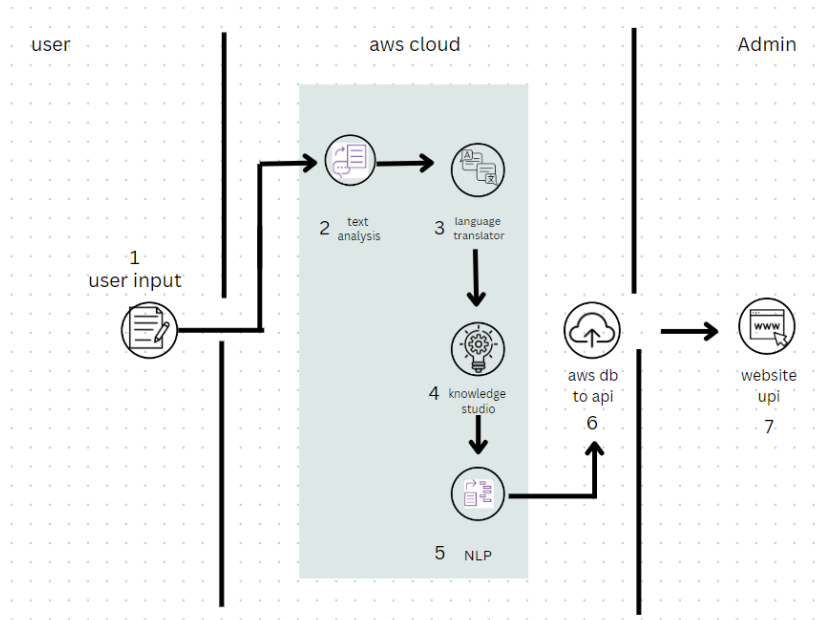
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Chatbot	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	user to provide the input, such as text and pictures.	Java / Python
3.	Application Logic-2	Given data will be analyzed based on the given knowledge basis.	Amazon comprehend .
4.	Database	Data Type, Configurations	MySQL, NoSQL.
5.	Cloud Database	DynamoDB	Amazon databases.
6.	File Storage	File storage requirements	AWS Storage (S3 Bucket) AWS Block Storage or Filesystem.
7.	External API-1	Open ai	Slack's bot API.
8.	Machine Learning Model	To analyze the given pictures and data.	CNN, NLP, Deep Learning algorithms.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	EC2, Cloud Storage, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used

S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

References:

https://platform.openai.com/api-keys

https://aws.amazon.com/what-is/text-analysis/

https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Introduction.html

https://aws.amazon.com/architecture

https://huggingface.co/matchten/text-message-analyzer-finetuned