

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

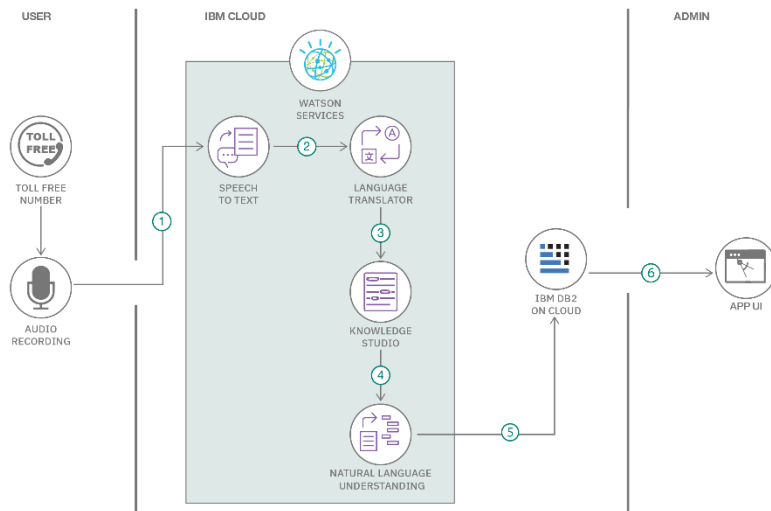
Date	27 October2022
Team ID	PNT2022TMID
Project Name	Project- Dog breed classification
Maximum Marks	4Marks

### 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/>



### Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

**Table-1 :Components& Technologies:**

S.No	Component	Description	Technology
1.	User Interface	How user interacts withapplication e.g. WebUI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript /Angular Js/ React and flask.
2.	Application Logic-1	Logic for aprocess in the application	Python
3.	Application Logic-2		
4.	Application Logic-3		
5.	Database	Data Type, Configurations etc.	MongoDB.
6.	Cloud Database	Database Service on Cloud	atlas with google cloud
7.	File Storage	File storage requirements	Local Filesystem
8.	External API-1	to fetch a dogs characteristics from a breed name	the dogs api.
9.	External API-2		
10.	Machine Learning Model	Purpose of Machine LearningModel	VG19
11.	Infrastructure(Server / Cloud)	Application Deploymenton LocalSystem /Cloud Local ServerConfiguration: CloudServer Configuration :	Local, Cloud Foundry, Kubernetes, etc.

**Table-2:Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	VG19 and reactjs	image identification and classification
2.	SecurityImplementations	List all the security / access controlsimplemented, use of firewalls etc.	SHA-256, Encryptions,IAM Controls, OWASPetc.
3.	Scalable Architecture	the architecture is very stable for any server load	google cloud based model

S.No	Characteristics	Description	Technology
4.	Availability	Availability of the application is secured by using login for multiple time users	Login functions
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	google cloud and VG19 architecture

#### 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>