

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

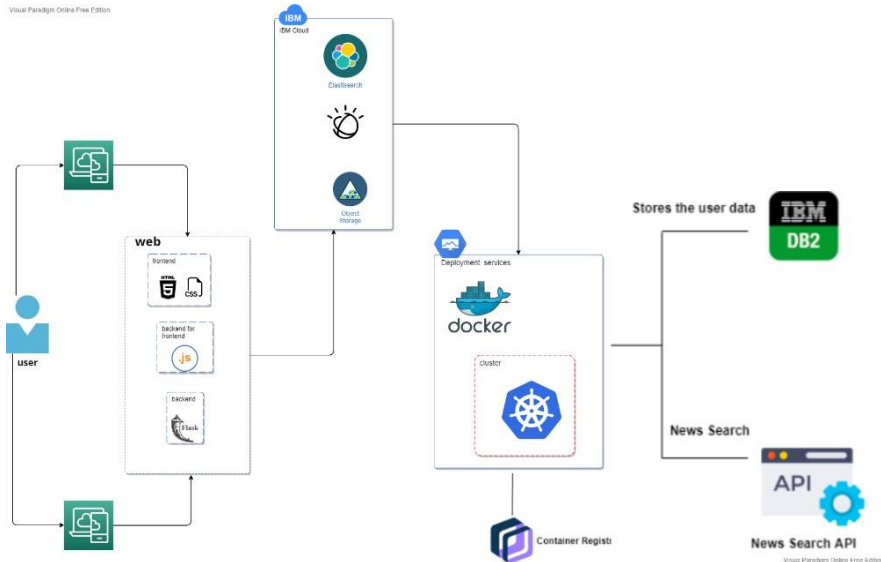
Date	03 October 2022
Team ID	PNT2022TMID31792
Project Name	Project - news tracker application
Maximum Marks	4 Marks

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/>



Guidelines:

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

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interact with Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
2.	Application Logic-1	create a flask application which connects ibm db2	Python flask
3.	Application Logic-2	convert voice into text using IBM Watson STT search in the search engine using elastic search, upload images or files to object storage.	IBM Watson STT service ,object storage,elastic search
4.	Application Logic-3	Ask queries using watson assistant	IBM Watson Assistant
5.	Database	Data Type and Configurations.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2,
7.	File Storage	News feeds , video, audio,image	IBM Object Storage
8.	External API-1	secure ,socialize,manage and monetize, helping power digital transformation on premises and across the cloud.	IBM News API, etc.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Cloud Server Configuration : SLA	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	A software for which the original source code is made freely available and may be redistributed and modified according to the requirement of the user.	Python

S.No	Characteristics	Description	Technology
2.	Security Implementations	Cloud Security Posture Management(CSPM), Detect cloud security and compliance configuration risk, anomalous activity, vulnerabilities, and misconfigurations.	Built-in encryption, BYOK
3.	Scalable Architecture	Python is one of the pioneers of programming languages that developers can use to do all the scaling work. To improve scalability, you can enable or disable services run by the dispatcher on individual servers to balance the load for a given computer by request type.	Technology used in the architecture is that with the Python and the IBM cloud.
4.	Availability	Availability is the ability of a system to withstand or recover from exceptional situations, such as a computer failure. IBM Cloud is on-demand access, via the internet, to computing resources applications, servers (physical servers and virtual servers), data storage, development tools, networking capabilities, and more hosted at a remote data centre managed by a cloud services provider (or CSP).	Technology used are the IBM cloud and the database.
5.	Performance	The updation of trending news occurs without any interruption. So, its performance is good.	Container Registry, Kubernetes Cluster.

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>

