Project Design Phase-II

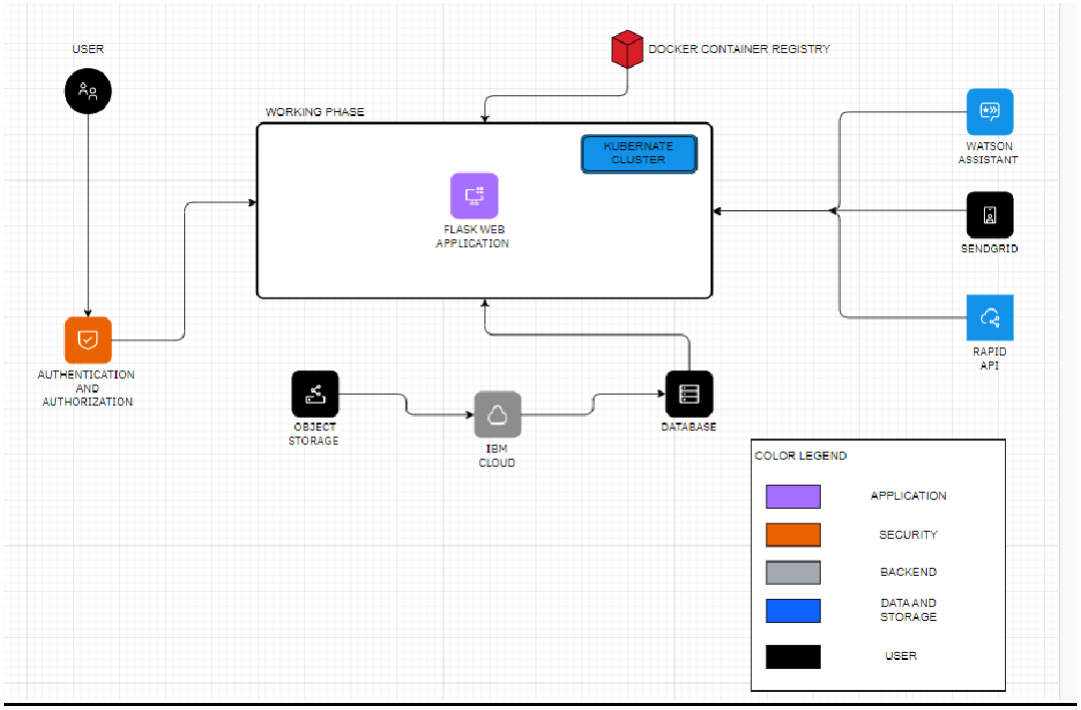
Technology Stack (Architecture & Stack)

Date	14 October 2022
Team ID	PNT2022TMID16599
Project Name	Project – skill and job recommender 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

SKILL AND JOB RECOMMENDER APPLICATION



Guidelines:

1. Registration using form, Gmail
2. Confirmation using OTP, gmail
3. flask app -using python library
4. first - Homepage with login and register
5. In Homepage showing post job and apply job
6. Login page- login and confirmation message
7. register page- register an confirm using OTP or email
8. after Login-dashboard showing more jobs and can search specific job
9. Login and register database are stored in IBM DB2
10. OTP Messages are sent through Send grid

11. Rapid api is connected to display jobs and to search jobs
12. Files can be stored in IBM Storage
13. Services are received from IBM Cloud account

Table-1 :

Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, Java script, flask etc.
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2 (ibm cloud)
7.	File Storage	File storage requirements	IBM object Storage
8.	External API-1	Purpose of External API used in the application	Rapid API API, etc.
9.	External API-2	Purpose of External API used in the application	Rapid API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, 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 flask.
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used IBM cloud

S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used IBM DB2 ,kubernate
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 sendgrid , IBM container Registry,

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