

PROJECT DESIGN PHASE-II

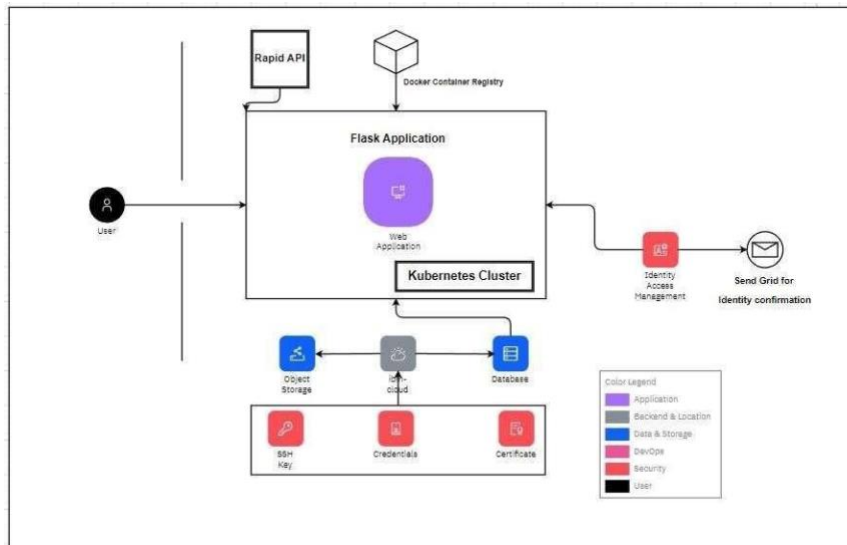
TECHNOLOGY STACK (ARCHITECTURE & STACK)

Date	03 October 2022
Team ID	PNT2022TMID07331
Project Name	Project – News Tracker Application

TECHNICAL ARCHITECTURE:

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

NEWS TRACKER 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 general news
6. Login page- login and confirmation message
7. register page- register and confirm using OTP or email
8. after Login-dashboard showing more news and can search specific news
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 news and to search news
12. Files can be stored in IBM Storage

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, JavaScript / Angular Js / React Js etc.
2.	Application Development	Logic for a process in the application	Python
3.	Application Logic-2	Integrate Chatbot with the Web Application	IBM Watson STT service
4.	Chat Bot	Chatbot Assistant	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.	API Connection	Searching News	Rapid API, etc.
9.	API Connection	Displaying Headline news	Rapid API, etc.
10.	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	Flask is a micro web framework written in Python. It is classified as a microframework because it does not require tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions.	Flask
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SSH Key with Certificate, Service Credentials
3.	Scalable Architecture	Presentation tier: UI Interface with HTML, CSS, JavaScript Application tier: Rapid API, Flask Data tier: IBM Cloud with Database such as IBM DB2, etc.	HTML, CSS, JavaScript, flask (Python Framework), Rapid API, IBM Cloud with Database such as IBM DB2, etc.
4.	Performance	number of requests per sec, use of Cache, use of Kobe CDN	IBM Cache Services, Kubernetes