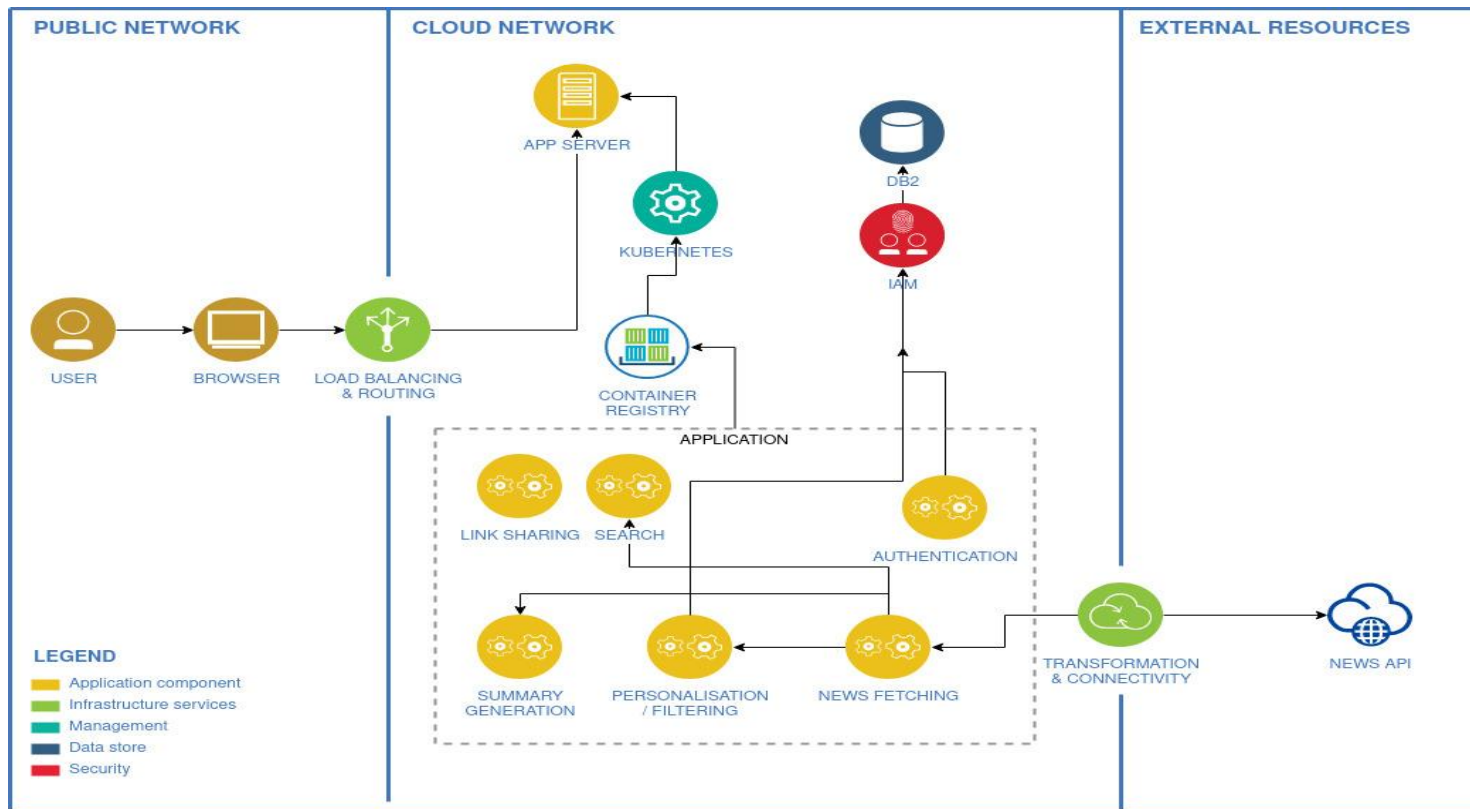


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	<b>PNT2022TMID53234</b>
Project Name	<b>News Tracker Application</b>
Maximum Marks	4 Marks

### Technical Architecture:

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



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

<b>S.No</b>	<b>Component</b>	<b>Description</b>	<b>Technology</b>
1.	User Interface	Web UI, Browser	HTML, CSS, JavaScript, Python, Flask
2.	Application Logic-1	Authentication	Python
3.	Application Logic-2	News Fetching	REST
4.	Application Logic-3	Searching	Python, REST
5.	Application Logic-4	Personalisation	Python, IBM DB2
6.	Application Logic-5	Summary generation	Python, REST
7.	Application Logic-6	Link Sharing	Python, REST
8.	Cloud Database	Database Service on Cloud	IBM DB2
9.	External API-1	News API returns results for current and historic news published over various sources	Rapid API
10.	Infrastructure (Cloud)	Application Deployment on Cloud Cloud Server Configuration :	Cloud Foundry, Kubernetes, Container Registry

**Table-2: Application Characteristics**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask	Python
2.	Security Implementations	Using IAM controls provided by IBM Cloud the access to resources through appropriate service IDs and security keys.	Encryptions, IAM Controls
3.	Scalable Architecture	Since we are using 3-tier architecture any tier can be scaled up independent of others	IBM container registry, IBM DB2 cloud
4.	Availability	Uses distributed cloud, and automatic load balancing with containerized app to ensure high availability	Docker, Kubernetes, IBM Cloud
5.	Performance	Using load balancing and Containerization leads to high performance	Container registry, Kubernetes

**References:**

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

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