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

Date	19 October 2022
Team ID	PNT2022TMID41181
Project Name	Project – News Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

NEWS TRACKER APPLICATION
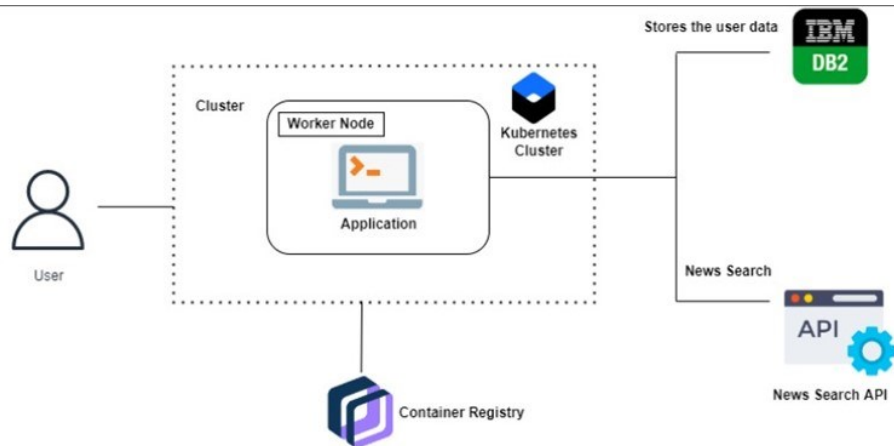
Guidelines:

1. The HTML and CSS are used for the user interface for the user to use the application.
2. The user search for the news based on interest rather than scrolling down the all the news.
3. The news feed is list of newly published content on website. End users can receive push updates for new content on a site by subscribing to site's news feed.
4. IBM DB2 on cloud is used to access the information of the news based on the user interest

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The User interacts with the application via an web application to read news.	HTML, CSS, JavaScript ,React Js etc.
2.	Application Logic-1	Verifying the client ID.	Java / Python
3.	Application Logic-2	Analyse the news feed for each customer.	Flask
4.	Application Logic-3	Integrating the customer feed with IBM Watson to improve user experience.	IBM Watson Assistant
5.	Database	The client information is stored in a database.	MySQL, NoSQL, etc.
6.	Cloud Database	The news feed data is stored in cloud.	IBM DB2.
7.	File Storage	The files which the user uploads is stored here.	IBM Object Storage.
8.	External API-1	Weather API is used to gather weather information.	IBM Weather API, etc.
9.	External API-2	To verify the identity of user we use Aadhar API	Aadhar API, etc.
10.	Machine Learning Model	ML model is used to filter the news required by the user.	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Docker Cloud Server Configuration : Kubernetes	Local, 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.	Flask, Docker, etc.
2.	Security Implementations	Cloud Security Posture Management(CSPM), Detect cloud security and compliance configuration risk, anomalous activity,	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	DB2 is a database product from IBM. It is a Relational Database Management System (RDBMS). DB2 is designed to store, analyse and retrieve the data efficiently. DB2 product is extended with the support of Object-Oriented features and non-relational structures with XML.	Technology used are the python, cloud and IBM db2.