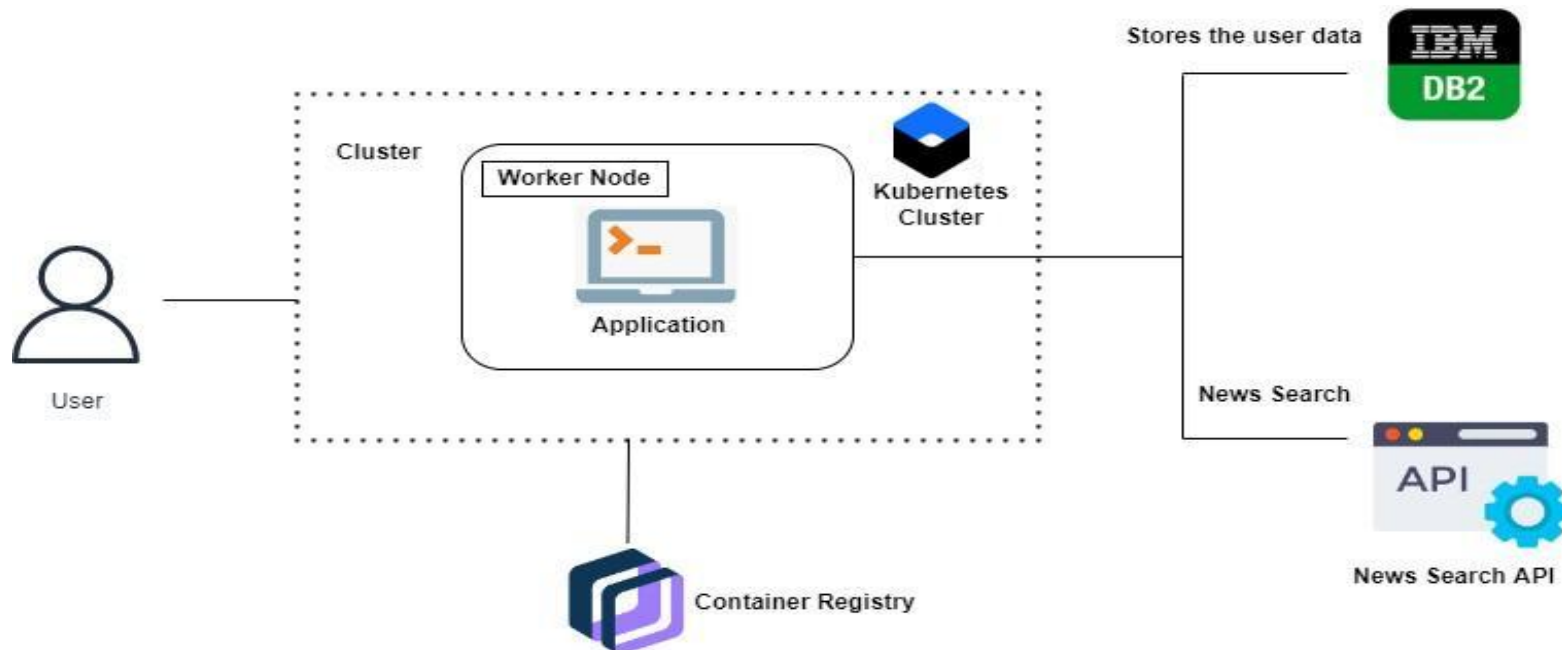


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	10 November 2022
Team ID	PNT2022TMID43934
Project Name	Project – News Tracker Application

### Technical Architecture:



## Guidelines:

- The HTML and CSS are used for Frontend which is responsible for UI.
- The news feed is collection of news which are newly published.
- The user could also receive push notifications on the new updates on the site.
- IBM DB2 is used to access information of the news based on user interest.
- For providing news the News API is used.

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

S.No	Component	Description	Technology
1.	User Interface	The user interacts with 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 database.	MySQL, NoSQL, etc.
6.	Cloud Database	The news feed data is stored in cloud.	IBM DB2.
7.	File Storage	Files uploaded by the user are stored.	IBM Object Storage.
8.	External API-1	Weather API used in the application for gathering news about weather.	IBM Weather API, etc.
9.	External API-2	NEWS API used in the application for taking news from different sources.	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:**

<b>S.No</b>	<b>Characteristics</b>	<b>Description</b>	<b>Technology</b>
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.
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 – Python and 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 - IBM DB2,IBM cloud
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 – IBM DB2

