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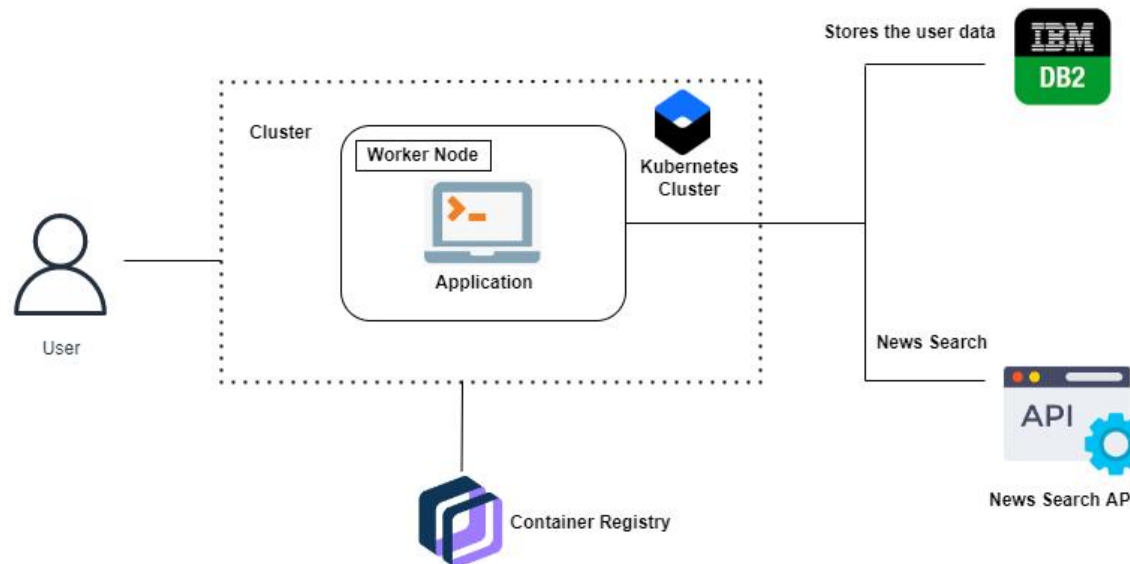# Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID51992
Project Name	News Tracker Application
Maximum Marks	4 Marks

News Tracker Technical Architecture:

As our lives are very busy these days, we often feel we need more than 24 hrs. a day to cope up with everything we have in our schedule. Well, that's not possible but reducing the time by changing the conventional method of reading news can help. Just tell us what market news you're interested in and get a quick peek for the day. Only read what you feel is relevant and save your time. This app helps you to query for all information about Indices, Commodities, Currencies, Future Rates, Bonds, etc.… as on official websites.

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The User will interact with Web UI	HTML, CSS, JavaScript, React Js etc.
2.	Application Logic-1	User ID verification	Python
3.	Application Logic-2	Analyzing the news suggestion for each User	Flask
4.	Application Logic-3	Integrating the customer feed with IBM Watson to improve the user experience	IBM Watson Assistant
5.	Database	User data like registration, name are stored in database.	MySQL
6.	Cloud Database	The News feed and live videos are stored in Cloud Database	IBM DB2
7.	File Storage	The Files uploaded by user is stored here.	IBM Object Storage
8.	External API-1	Weather API is used to track weather updates	IBM Weather API, etc.
9.	External API-2	News API is used to get the news	News API, Google News API, Bloomberg API etc
10.	Machine Learning Model	Machine Learning is used to filter the news	Natural Language Processing
11.	Infrastructure (Server / Cloud)	Local Server Configuration: Docker Cloud Server Configuration : Kubernetes	Docker, Kubernetes.

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.	Python - Flask, Docker, etc.
2.	Security Implementations	Cloud Security Posture Management(CSPM), Detect cloud security and compliance configuration risk, anomalous activity.	Built-in encryption.
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.	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).	IBM cloud and the database(MySQL.
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.