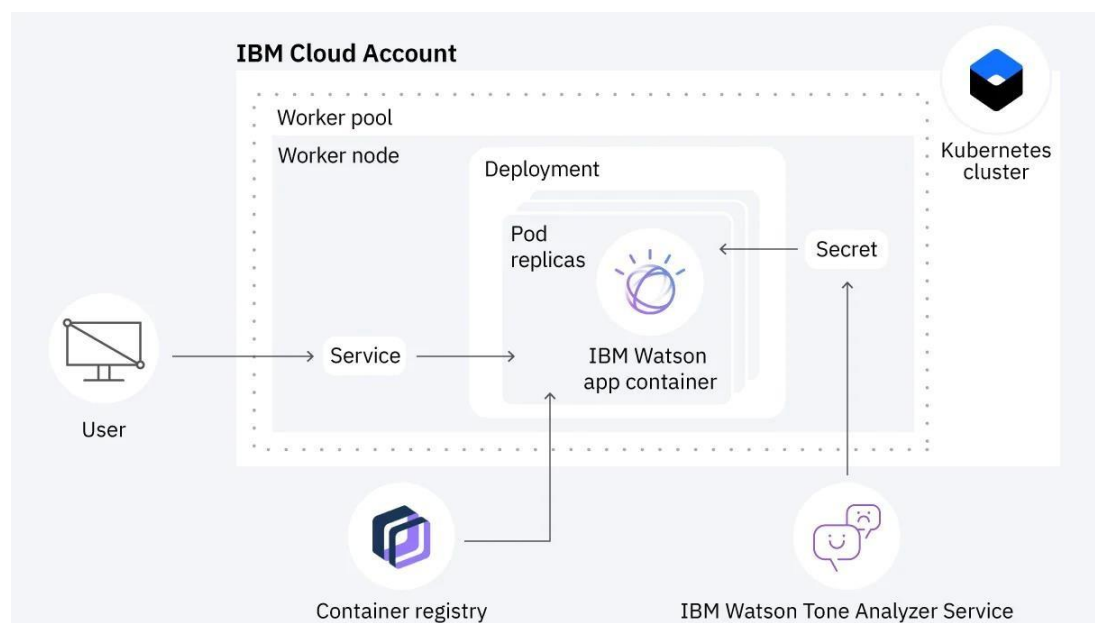
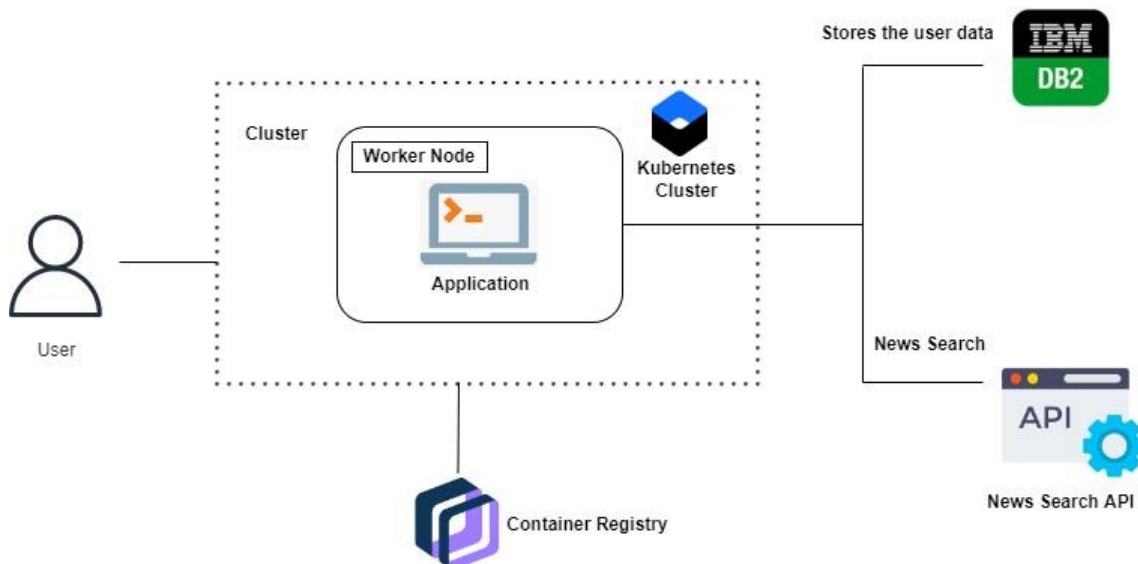


## ***Project Design Phase 2 – Technology Architecture***

Date	15th Oct 2022
Team ID	News Tracker Application
Project Name	PNT2022TMID47959
Maximum Marks	15th Oct 2022

### ***Technology Architecture:***

Technology architecture deals with the deployment of application components on technology components. A standard set of predefined technology components is provided to represent servers, network, workstations, and so on.



**Table-1 Components & Technologies**

S.No	Component	Description	Technology
1.	<i>User</i>	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js, python, flask
2.	<i>Cluster</i>	Consist of work node, Application, Kubernetes cluster.	Docker hub, IBM Cloud, Kubernetes
3.	<i>Work node</i>	Deployment of application image to the cloud	IBM Cloud, IBM Cloud Container Registry
4.	<i>Kubernetes Cluster</i>	Interactive browser-based training for deploying and operating a cluster on IBM Cloud	IBM Kubernetes
5.	<i>Container Registry</i>	Data Type, Configurations etc.	IBM Cloud Container Registry.
6.	<i>Stores the user data</i>	Database Service on Cloud	IBM DB2
7.	<i>News search</i>	User action on searching news articles	IBM Block Storage or Other Storage Service or Local Filesystem
8.	<i>News Search API</i>	Purpose of External API used in the application	IBM News Search API, etc.

**Table-2 Application Characteristics**

S.No	Characteristics	Description	Technology
1.	<i>Open-Source Frameworks</i>	List the open-source frameworks used	IBM DB2, IBM Cloud, IBM Cloud Container Registry, Docker hub, IBM Cloud Kubernetes
2.	<i>Security Implementations</i>	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	<i>Scalable Architecture</i>	Justify the scalability of architecture (3 – tier, Micro-services)	IBM DB2, IBM Cloud, IBM Cloud Container Registry
4.	<i>Availability</i>	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Docker hub, IBM Cloud Kubernetes
5.	<i>Performance</i>	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	HTML, CSS, JavaScript / Angular Js / React Js , IBM News Search API