Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	16-10-2022
Team ID	PNT2022TMID27747
Project Name	News tracker application
Maximum Marks	4 Marks

Technical architecture :
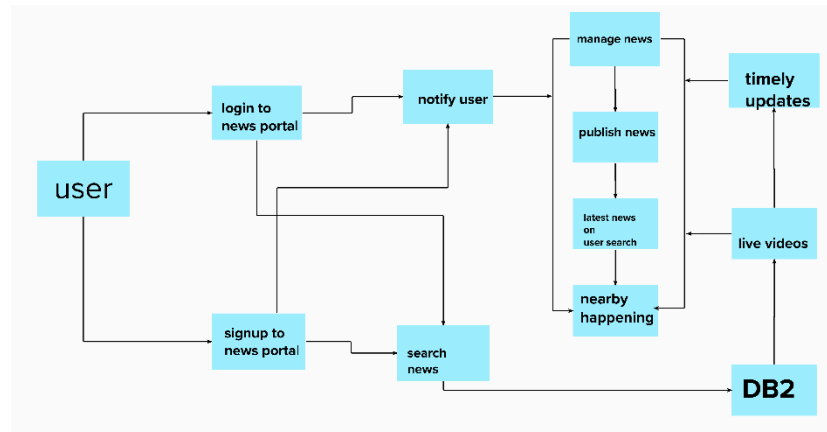
> ➤ The HTML and CSS are used for the user interface for the user to use the application.
> ➤ The user search for the news based on interest rather than scrolling down the all the news.
> ➤ The news feed is list of newly published content on website. End users can reciece push updates for new content on a site by subscribing to site's news feed.
> ➤ Feeds are designed to be machine-readable so they can they can transfer information from one computer to another without human intervention. Browser plug-ins, client-side applications called readers or application program interfaces (APIs) translate the code into human-readable text.
> ➤ IBM DB2 on cloud is used to acess the information of the news based on the user interest.

Table-1 : Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	User interacts with the application using web development, which is used to get the information needed for the user.	HTML, CSS, JavaScript / React Js etc.
2.	Application Logic	The Logic depends on the extraction news from the database	Python
3.	Database	Data type , configuration etc.	MYSQL, NOSQL, etc.
4.	Cloud database	Database service on cloud	IBM DB2, IBM Cloudnet etc..
5.	File storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem.
6.	Infrastructure (server/cloud)	Application deployment on local system / cloud local server configuration : Docker Cloud server configuration : Kubernetes	Local, Cloud Foundry, Kubernetes, etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, 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	Python
2.	Security Implementations	Cloud Security Posture Management(CSPM), Detect cloud security and compliance configuration risk, anomalous activity, vulnerabilities, and misconfigurations.	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	Technology used are the python, cloud and IBM db2

		extended with the support of Object-Oriented features and non-relational structures with XML.	