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

Date	17October 2022
Team ID	PNT2022TMID51114
Project Name	Project –News Tracker Application.
Maximum Marks	4 Marks

Technical Architecture:

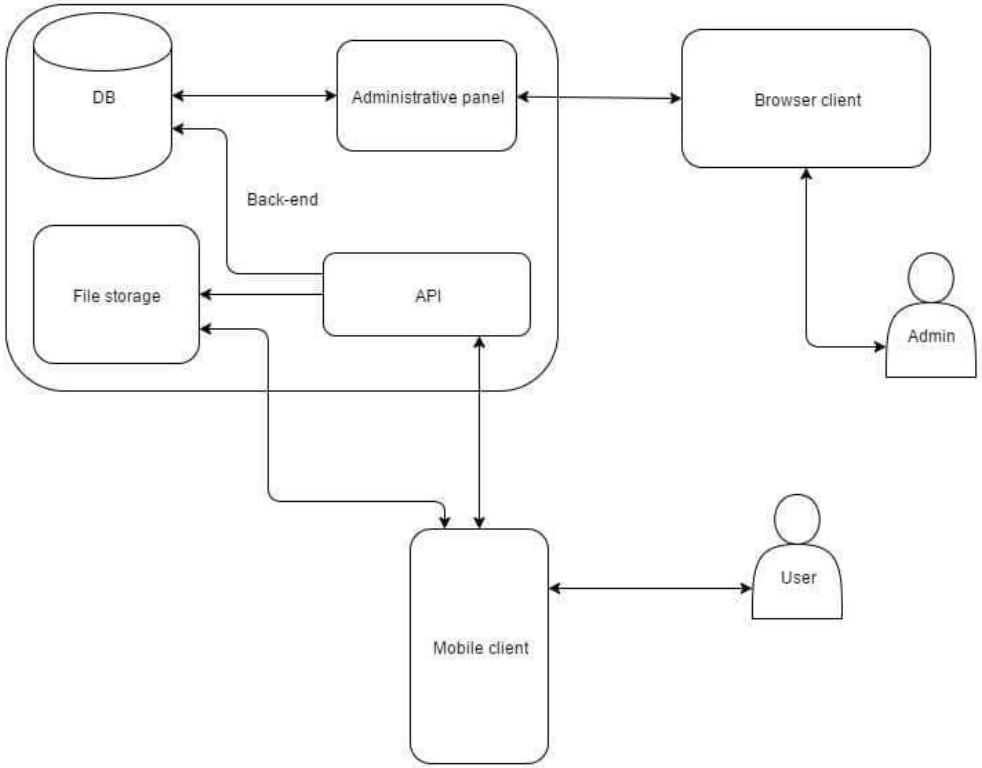

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User uses the application (mobile client) and searches the desired news then the application uses the API to access the information from the file storage.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	This application starts with login page where user sign up or sign in web application	HTML, CSS , Java / Python
3.	Application Logic-2	As a user, I sign up for the news tracker application by giving my email ID, DOB as password and confirming password	IBM Watson STT service
4.	Application Logic-3	User selects the topic and able to view the selected contents	IBM Watson Assistant, Chabot.
5.	Database	User's email and passwords are stored in the database.(Data Type, Configurations etc.)	MySQL, NoSQL, etc.
6.	Cloud Database	Users can access their desired news by using internet which is stored in the cloud database.(Database Service on Cloud)	IBM DB2, IBM Cloudant etc.
7.	File Storage	User's history, bookmarks and their login details are stored in the file storage	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Users must be aware of their vicinity's weather change so it's mandatory to include weather reports.	IBM Weather API, etc.
9.	External API-2	It checks the integrity of the user and authenticates it. The API receives a customer's Aadhar number and an OTP as input, using which it retrieves and collects KYC information such as full name, date of birth, address, gender, and more.	Aadhar API, etc.
10.	Infrastructure (Server / Cloud)	By using cloud infrastructure, application is faster, memory free and accessible whenever wherever possible.	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Here this application is light weight . It uses flask (python) as a backend development .For web development HTML and CSS is used.	HTML, CSS, Flask(python)
2.	Security Implementations	Users login credentials, personal information like searches history, searches and bookmarks are protected from third parties by using algorithms like SHA-256, Encryptions, IAM Controls, OWASP etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Since it is accessed by more people, more servers are needed. The contents are available 24/7 without any interference despite the size of the content. It uses architecture like 3 – tier, Micro-services etc.	3 – tier, Micro-services etc.
4.	Availability	Available 24/7 whenever wherever possible. Can be accessed through internet.	Cloud
5.	Performance	It avoids latency.	Internet and cloud.