

# **IBM PROJECT REPORT**

## **NEWS TRACKER APPLICATION**

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# **1.INTRODUCTION**

## **1.1 PROJECT OVERVIEW**

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.

## **1.2 PURPOSE**

In today's world people cannot go a day without technology and social sites. In the past few decades, people were familiar with the social News sites, but in recent years, the need of features has been increased so as to make the lives of people much simpler, better and handy. The rapid progress in the mobile technology field has created a new zeal in the many new young minds of the software engineers and developers. There have been many attempts made to develop a freeware and cross platform instant news service for smart phones. A pilot case study was carried out to trace the support of the features of news applications.

The prototype developed includes the testing module. Using web services over the internet that offers latest news helps the process of development in a standardized way of the clients. It is a research on how to use and develop new features in the smart phones for bringing the world to the hands of the people and making every updates of the world easily accessible and user friendly. In the research we intend in developing a mobile news application which can connect the whole world in just a tap on the smart phones and make the people's life easy by keeping them updated with news updates.

# **2. LITERATURE REVIEW**

## **2.1 EXISTING PROBLEM**

1. Research On Topic Detection and Tracking for Online News Tracker: With the rapid development of the Internet, the amount of data has grown exponentially. On the one hand, the accumulation

of big data provides the basic support for artificial intelligence. On the other hand, in the face of such huge data information, how to extract the knowledge of interest from it has become a matter of general concern. Topic tracking can help people to explore the process of topic development from the huge and complex network texts information. By effectively organizing large-scale news documents, a method for the evolution of news topics over time is proposed in this paper to realize the tracking and evolution of topics in the news text set. First, the LDA (latent Dirichlet allocation) model is used to extract topics from news texts and the Gibbs Sampling method is used to speculate parameters. The topic mining using the K-means method is compared to highlight the advantages of using LDA for topic discovery. Second, the improved single-pass algorithm is used to track news topics. The JS (Jensen–Shannon) divergence is used to measure the topic similarity, and the time decay function is introduced to improve the similarity between topics with the similar time. Finally, the strength of the news topic and the content change of the topic in different time windows are analyzed. The experiments show that the proposed method can effectively detect and track. The topic and clearly reflect the trend of topic evolution

Merits: Improved Single-Pass algorithm is used for topic tracking, in which the time decay function and the JS divergence are used to measure the similarity between the topics.

Demerits: The characteristics of the news, the position factor is not considered, which will be the direction of the next work.

2. A Location- and Diversity-Aware News Feed System for Mobile Users: : A location-aware news feed (LANF) system generates news feeds for a mobile user based on her spatial preference (i.e., her current location and future locations) and non spatial preference (i.e., her interest). Existing LANF systems simply send the most relevant geo tagged messages to their users. Unfortunately, the major limitation of such an existing approach is that, a news feed may contain messages related to the same location (i.e., point-of-interest) or the same category of locations (e.g., food, entertainment or sport). We argue that diversity is a very important feature for location-aware news feeds because it helps users discover new places and activities. In this paper, we propose D-Mob i Feed; a new LANF system enables a user to specify the minimum number of message categories ( $h$ ) for the messages in a news feed. In D -Mobi Feed, our objective is to efficiently schedule news feeds for a mobile user at her current and predicted locations, such that (i) each news feed contains messages belonging to at least different categories, and (ii) their total relevance to the user is maximized. To achieve this objective, we formulate the problem into two parts, namely, a decision problem and an optimization problem. For the decision problem, we provide an exact solution by modeling it as a maximum flow problem and proving its correctness. The optimization problem is solved by our proposed three-stage heuristic algorithm. We conduct a user study and experiments to evaluate the performance of D-Mob i Feed using a real data set crawled from Foursquare. Experimental results show that our proposed three-stage heuristic scheduling algorithm outperforms the Brute force optimal algorithm by at least an order of magnitude in terms of running time and the relative error incurred by the heuristic algorithm is below 1%. D-Mob i Feed with the location prediction method effectively improves the relevance, diversity, and efficiency of news feeds.

Merits: D-Mob i Feed with the location prediction method effectively improves the relevance, diversity, and efficiency of news feeds.

D-Mob i Feed can efficiently provide location- and diversity-aware news feeds when maintaining their high quality in terms of relevance

Demerits: A news feed may contain messages related to the same location (i.e., point-of-interest) or the same category of locations (e.g., food, entertainment or sport).

3. Exploring Mobile News Reading Interactions for News App Personalization: As news is increasingly accessed on smartphones and tablets, the need for personalizing news app interactions is apparent. We report a series of three studies addressing key issues in the development of adaptive news app interfaces. We first surveyed users' news reading preferences and behavior; analysis revealed three primary types of reader. We then implemented and deployed an Android news app that logs users' interactions with the app. We used the logs to train a classifier and showed that it is able to reliably recognize a user according to their reader type. Finally we evaluated alternative, adaptive user interfaces for each reader type. The evaluation demonstrates the differential benefit of the adaptation for different users of the news app and the feasibility of adaptive interfaces for news apps.

Merits: The reader types emerging from the online survey are well defined and distinct. The evaluation of the three variant interfaces suggest that different news reader type need different user interface.

Demerits: This application doesn't have automation process and upgradation.

4. Tracking News Stories Using Blockchain to Guarantee their Traceability and Information Analysis: Nowadays, having a mechanism to guarantee the traceability of the information and to monitor the evolution of the news from its origin, and having elements to know the reputation and credibility of the media, analyze the news as well as its evolution and possible manipulation, etc. is becoming increasingly significant. Transparency in journalism is currently a key element in performing serious and rigorous journalism. End-users and fact checking agencies need to be able to check and verify the information published in different media. This transparency principle enables the tracking of news stories and allows direct access to the source of essential content to contrast the information it contains and to know whether it has been manipulated. Additionally, the traceability of news constitutes another instrument in the fight against the lack of credibility, the manipulation of information, misinformation campaigns and the propagation of fake news. This article aims to show how to use Blockchain to facilitate the tracking and traceability of news so that it can provide support to the automatic indexing and extraction of relevant information from newspaper articles to facilitate the monitoring of the news story and allows users to verify the veracity of what they are reading.

Merits: To determine a way to address the issues of fake news, disinformation campaigns, and the lack of credibility to which journalists and media are exposed.

Simply put, Blockchain technology is a digital database for recording encrypted blocks of information that can neither be changed nor hacked.

Demerits: These consist of a batch of devices (or nodes) that collectively store and share files. Each node works as a peer. If the P2P network is too extensive, it becomes a big challenge.

By nature, Blockchain uses strict logic, so it does not allow redesign without losing benefits, leading to considerable business alterations. If you do not make those changes, a blockchain solution will not accept you.

5. A Review Paper on Fake News Detection: With the popularity of mobile technology and social media growing, information is readily available. Mobile App and social media platforms have overturned traditional media in the distribution of news. Alongside the increment in the utilization of online media stages like Facebook, Twitter, and so forth, news spread quickly among a large number of clients with an extremely limited ability to focus time. Machine learning and Knowledge-based approach and approach are the two techniques utilized for investigating the truthiness of the content. Public and private assessments on a wide assortment of subjects are communicated and spread persistently through various online media. Most methodologies are utilized, for example, regulated AI. The spread of phony news has extensive results like the making of one-sided feelings to influencing political race results to support certain applicants. Additionally, spammers utilize engaging news features to produce income utilizing notices through click baits. In this paper, we intend to perform a parallel grouping of different news stories accessible online with the help of thoughts identifying with Artificial Intelligence, Natural Language Processing, and Machine Learning. The result of the project determines the fake news detection for social networks using machine learning and also checks the authenticity of the publishing news website.

Merits: Survey based on Fake news detection proven using various machine Learning and Deep Learning Techniques. Machine Learning Algorithms such as Linear Regression, Logistic Regression, Support Vector Machine, K-Nearest Neighbors, Neural Network Models and Decision Trees are used to predetermine the future content and determine the inaccurate news and posts. Demerits: A situation that arises when a machine learning model fails to capture the data properly. This typically occurs when the hypothesis function cannot fit the data well. Outliers can have a very big impact on linear regression's performance and hence they must be dealt with appropriately before linear regression is applied on the dataset.

## 2.2 REFERENCES

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7. A Review Paper on Fake News Detection, 2021.  
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## 2.3 PROBLEM STATEMENT DEFINITION

### PROBLEM STATEMENT :

Mr. Kamal is a 20 years old College student living in Nagercoil. He went to Chennai to attend an interview there. At the time, he faced many problems. They are:

- Achievements of the company. Weather condition.

Who does the problem affect?	The people are affected.
What are the boundaries of the problem?	Limitation of news. Regional news.
What is the issue?	Telecasting ,particular information.
When does the issue occur?	If an information is announced, then that information is important to someone but they didn't know about it. In that situation some issue occurs .
Where does the issue occur?	The issue occurs in when the person does not know about some information in particular area.
Why is it important that we fix the Problem?	It is important because everyone should know "What happens around us".
What solution to solve this issue?	Create an automated system which is use to provide news about certain areas. Update the current news.
What methodology used to solve the Issue?	Using API and cloud services. Develop an web application to interface with the users.

#### SOLUTIONS:

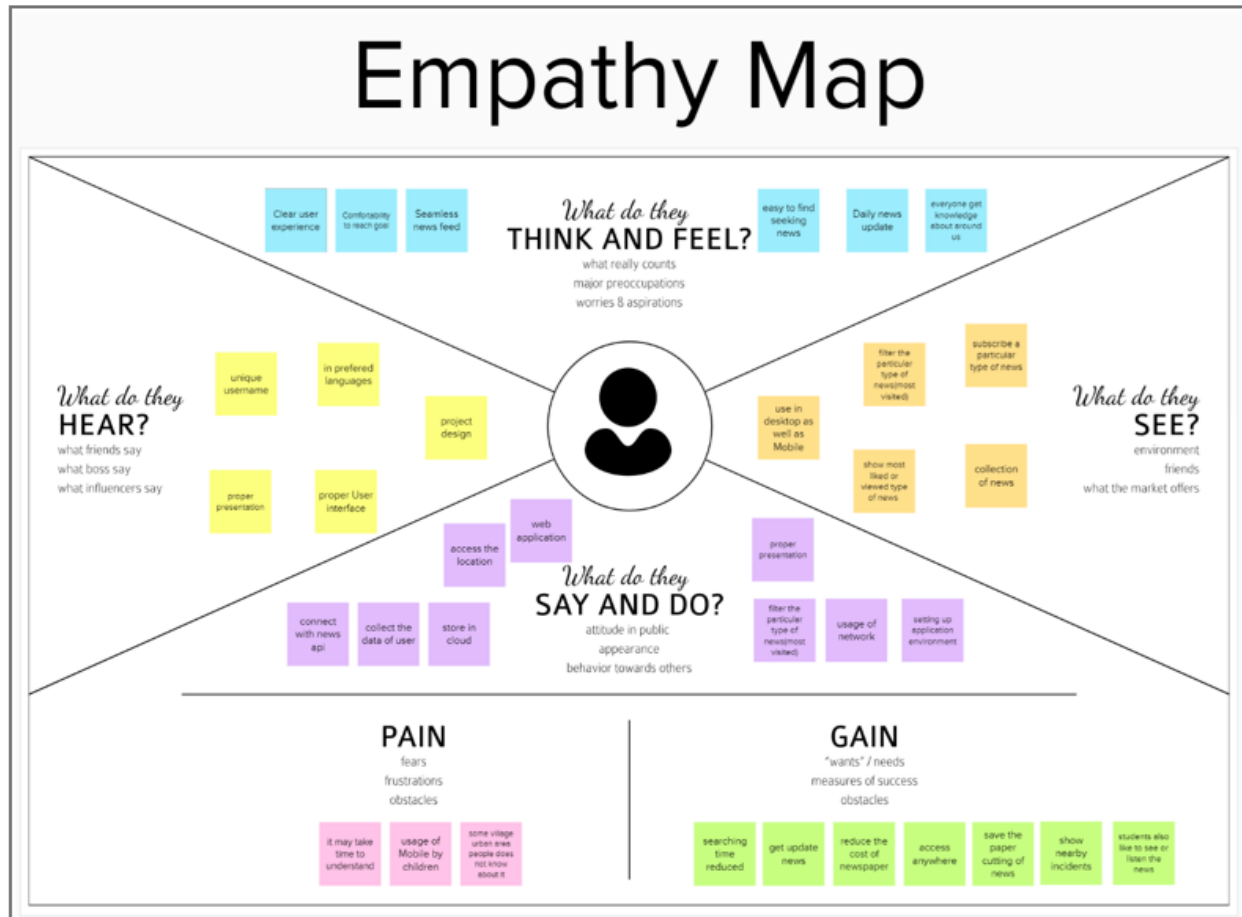
We deliver news in the form of quick videos. Distributing news from a reliable, trustworthy source everywhere, preventing the spread of false information. We offer local news in locations where there was already a news channel.

One platform to read all of his/her favorite local news, dependence on search engines and social media.

We added multiple languages to our platform so that locals could readily understand it.

### 3.IDEATION & PROPOSED SOLUTION

#### 3.1 EMPATHY MAP CANVAS



## NEWS TRACKER APPLICATION

**Define your problem statement**

What problem are you trying to solve? Frame your problem as a noun-verb statement. Think of the kinds of your questions.

*3 minutes*

**Brainstorm**

Write down any ideas that come to mind. The solution your problem statement.

*3 minutes*

**Group ideas**

Take 5 minutes to group ideas into categories. Write down the ideas that you think are most important.

*5 minutes*

**Finalize**

Write down the final solution. Think of the kinds of your questions.

*3 minutes*

**1**

What problem are you trying to solve? Frame your problem as a noun-verb statement. Think of the kinds of your questions.

*3 minutes*

**2**

Write down any ideas that come to mind. The solution your problem statement.

*3 minutes*

**3**

Take 5 minutes to group ideas into categories. Write down the ideas that you think are most important.

*5 minutes*

**4**

Write down the final solution. Think of the kinds of your questions.

*3 minutes*

**1**

What problem are you trying to solve? Frame your problem as a noun-verb statement. Think of the kinds of your questions.

*3 minutes*

**2**

Write down any ideas that come to mind. The solution your problem statement.

*3 minutes*

**3**

Take 5 minutes to group ideas into categories. Write down the ideas that you think are most important.

*5 minutes*

**4**

Write down the final solution. Think of the kinds of your questions.

*3 minutes*

**1**

What problem are you trying to solve? Frame your problem as a noun-verb statement. Think of the kinds of your questions.

*3 minutes*

**2**

Write down any ideas that come to mind. The solution your problem statement.

*3 minutes*

**3**

Take 5 minutes to group ideas into categories. Write down the ideas that you think are most important.

*5 minutes*

**4**

Write down the final solution. Think of the kinds of your questions.

*3 minutes*

### 3.3 PROPOSED SOLUTION

#### PROJECT DESIGN PHASE -1

Date	07-10-2022
Team ID	PTN2022TMID41218
Project Name	NEWS TRACKER APPLICATION
Maximum Marks	2 Marks

S.NO	PARAMETER	DESCRIPTION
1	Problem Statement (Problem to be solved)	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. 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.
2	Idea / Solution Description	We provide news in a form Of reading and video or audio types. Distribute the news everywhere, and based on the location we access the particular news.
3	Novelty / Uniqueness	It is an cloud based Web Application. It provides news based on the user interested areas and user requested location. User can pin the news and read later.

4	Social Impact / Customer Satisfaction	The first news paper in India was published in 1780's. But, in day to day life information and technologies are increased. Like that, Customers also expecting more new ideas and algorithms.
5	Business Model (Revenue Model)	This is an independent Platform to all the users like Pro Publica is an independent non-profit newsroom that produces investigative journalism with moral force.

## 3.4 PROBLEM SOLUTION FIT

Project Title: News Tracker Application

Project Design Phase-I - Solution Fit Template

Team ID: PNT2022TMD41218

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b>  In research, scientific purposes, commercial purpose and sociality purpose	<b>6. CUSTOMER CONSTRAINTS</b>  As much as service providers need to cater to the needs of their customers, it is just as important for them to satisfy their customers.	<b>5. AVAILABLE SOLUTIONS</b>  Customer can receive the information through internet and their updates. User interest news are list out top of the list.	Explore AS, differentiate	
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b>  From there the user can easily read the news in a single click and it is gives news as audio format .The user can receive messages based on their location.	<b>9. PROBLEM ROOT CAUSE</b>  Lot of time is wasting in reading news and some people does not know how to read in such cases they refuse the newspapers.	<b>7. BEHAVIOUR</b>  User experience, content performance , Perfect user interface , popularity sharing the news , conversion are optimization , checkout process website accessibility .		Focus on J&P, tap into BE, understand RC
	<b>3.TRIGGERS</b>  This software is used instead of using news and pictures. This software like as a journalism .It access the user location and give the related news.	<b>10.YOUR SOLUTION</b>  From this application, user get better UI experience, Reduce their time of reading and get information in everywhere. Using certain algorithms to pop up the user interest areas.	<b>8. CHANNELS BEHAVIOUR</b>  8.1. Online This web application basically depends upon the internet connectivity, because we use the API and database connections through internet or online mode.  8.2. Offline This is not applicable for offline, but also we can save the clips and read in offline mode.		
<b>4. EMOTIONS: BEFORE / AFTER</b>  Fear ,satisfaction, sometimes anger and both positive and negative responses while designing the application.					

## 4 .REQUIREMENT ANALYSIS

### PROJECT DESIGN PHASE-II

#### Solution Requirements (Functional & Non-functional)

Date	20 October 2022
Team ID	PNT2022TMID41218
Project Name	News Tracker Application
Maximum Marks	4 Marks

### 4.1 FUNCTIONAL REQUIREMENT

Following are the functional requirements of the proposed solution.

<b>FR No.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement (Story / Sub-Task)</b>
FR-1	User Registration	Registration through Form or instead of using Email id in this web application.
FR-2	User Confirmation	Confirmation via Email. Confirmation via OTP.
FR-3	User Login	User should login by their user name and password in the web application.
FR-4	User Search	User can search by their current location, related news is fetched from the database and present to the user.
FR-5	User Activity	The web application track the user interest and User most visited areas are store in the database.



## 4.2 NON-FUNCTIONAL REQUIREMENT

Following are the non-functional requirements of the proposed solution.

<b>FR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR-1	<b>Usability</b>	Everyone must understand easily by the proper User interface and simple ways to handle.
NFR-2	<b>Security</b>	It is secure and safe, No one change the data and no one can share the fake news.
NFR-3	<b>Reliability</b>	It is reliable because an authenticate person should able to share news.
NFR-4	<b>Performance</b>	It will perform very well when compare to other application.
NFR-5	<b>Availability</b>	It consists of more categories and updates
NFR-6	<b>Scalability</b>	It allows more number of user to access the application and it is flexible storage based upon the number of users.

## 5.PROJECT DESIGN

### 5.1 DATA FLOW DIAGRAM PROJECT DESIGN PHASE-II

Date	20 October 2022
Team ID	PNT2022TMID41218
Project Name	News Tracker Application
Maximum Marks	4 Marks

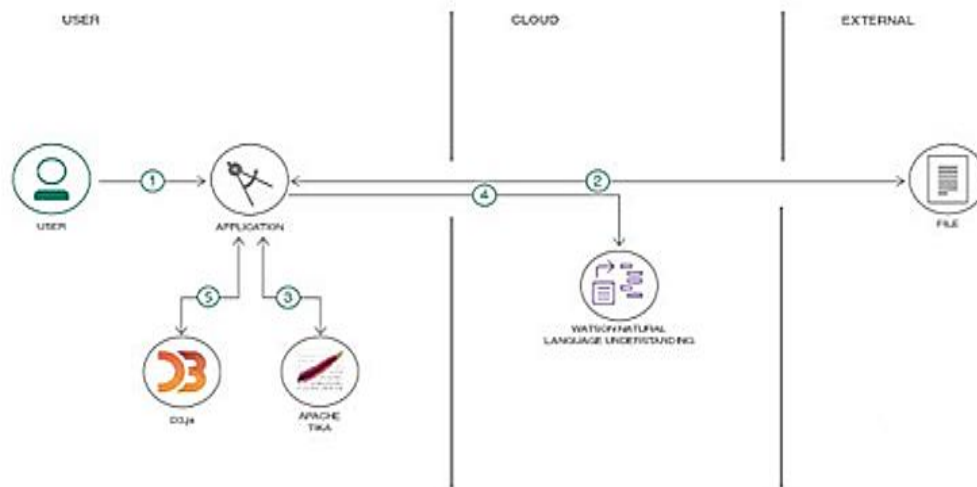
#### **Data Flow Diagrams:**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

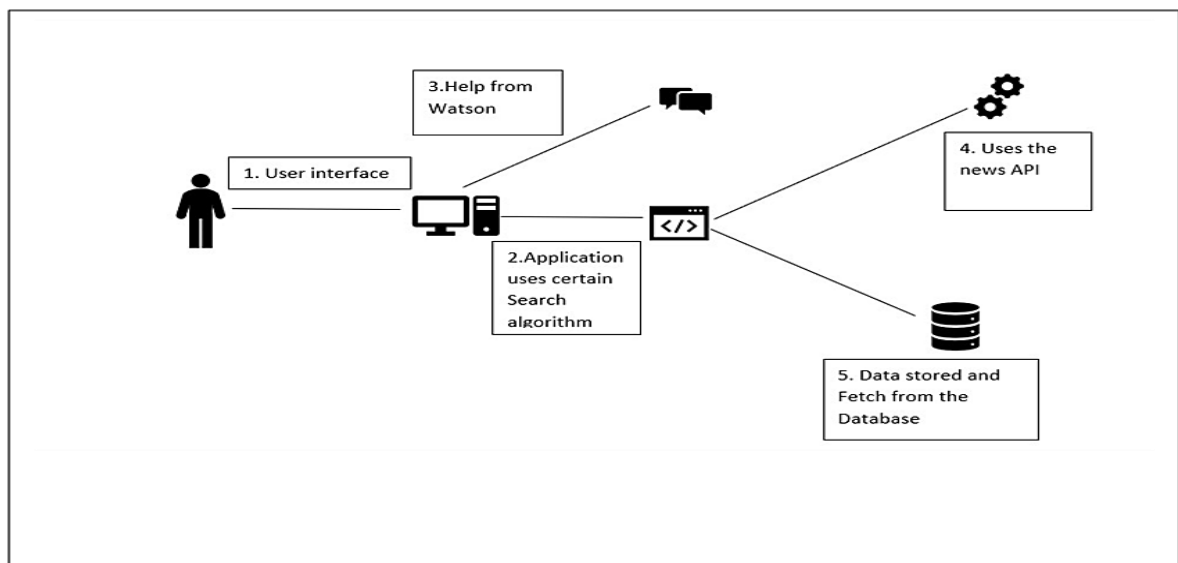
#### **Example: DFD Level 0 (News Tracker Application)**

**Example: (Simplified)**

# Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.



## 5.2 SOLUTION & TECHNICAL ARCHITECTURE

### PROJECT PHASE ONE-1

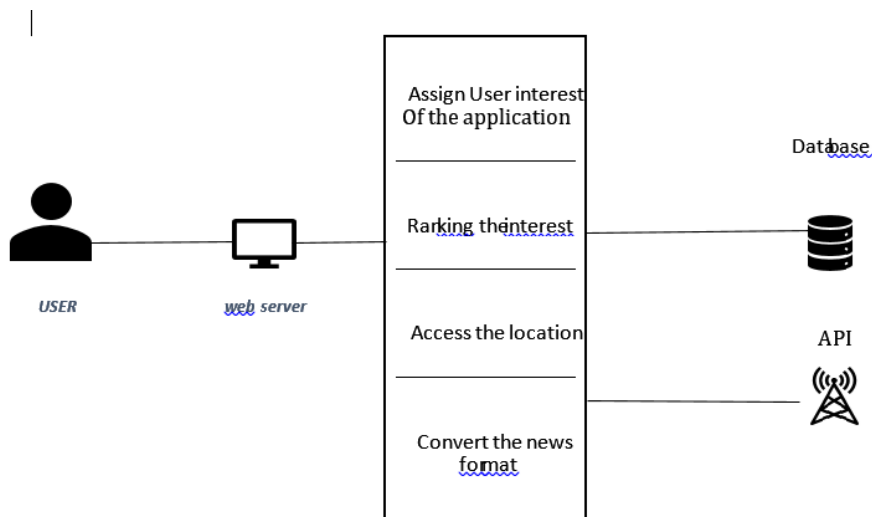
Date	07-10-2022
Team ID	PTN2022TMID41218
Project Name	NEWS TRACKER APPLICATION
Maximum Marks	4 Marks

### Solution Architecture

Solution Architecture is a complex process – with many sub processes – that bridges the gap between business problems, and technology solutions. Its goals are to:

1. Find the best tech solution to solve existing business problems.
2. Describe the structure, characteristics, behavior, and other aspects of the software the project stack holders.
3. Define features, development phases and solution requirements.
4. Provide specifications according to which the solution is defined, managed and delivered.

Example: Solution Architecture Diagram



## PROJECT DESIGN PHASE – II

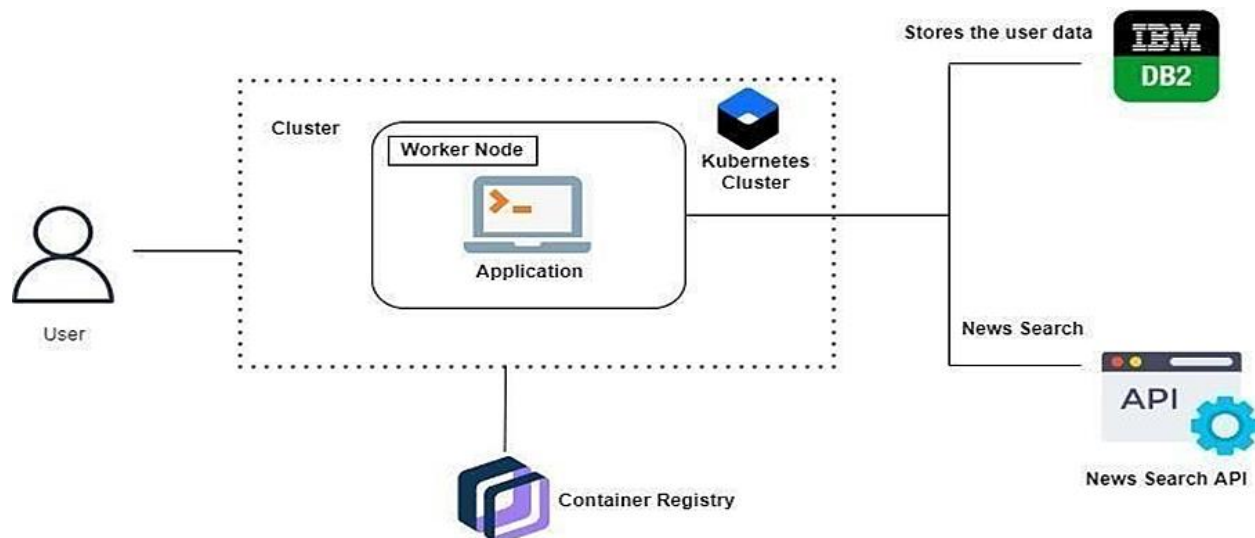
### Technical Architecture

<b>Date</b>	15 October 2022
<b>Team ID</b>	PNT2022TMID41218
<b>Project Name</b>	News Tracker Application
<b>Maximum Marks</b>	4 Marks

### News Tracker Application: -

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:



### Project Workflow: -

1. The user interacts with the application.
2. Registers by giving the details.

3. Integrate the application with news APIs and store the data in the database.
4. The database will have all the details and the user can search the news by using a search bar.

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

S No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular JS / React JS etc.
2.	Application Logic-1	Logic for a process in the application	Python flask
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem.
8.	External API	Purpose of External API used in the application	IBM News API, etc.
9.	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	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Microservices)	Technology used
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used

## 5.3 USER STORIES

### User Stories

✚ Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Gmail	I can access my account	Medium	Sprint-1
	Login	USN-4	As a user, I can log into the application by entering email & password	It directed to the web application	High	Sprint-1
	Dashboard	USN-5	As a user can access the service provided by the application, such as user can get the news from their current location as well as worldwide.	It gives the user interested area in news from the help of database and API	High	Sprint-1
Customer Care Executive	Help	USN-6	Watson helps the user to clear the user questions	I can receive the solutions for my questions	Medium	Sprint-2
Administrator	Administrator	USN-7	As a user, the administrator gives the access the resource	Overall service	High	Sprint-3s



## 6.PROJECT PLANNING & SCHEDULING

### 6.1 SPRINT PLANNING & ESTIMATION

#### MILESTONE & ACTIVITY LIST

<b>Date</b>	10 November 2022
<b>Team ID</b>	PN12UZZ1MID41218
<b>Project Name</b>	News tracker application

<b>TITLE</b>	<b>DESCRIPTION</b>	<b>DATE</b>
<b>Literature Survey &amp; Information Gathering</b>	Literature survey on the selected project & gathering information by referring the, technical papers, research publications etc.	27 SEPTEMBER 2022
<b>Prepare Empathy Map</b>	Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements	25 SEPTEMBER 2022
<b>Ideation</b>	List the by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance.	27 SEPTEMBER 2022
<b>Proposed Solution</b>	Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.	28 SEPTEMBER 2022
<b>Problem Solution Fit</b>	Prepare problem - solution fit document.	06 OCTOBER 2022
<b>Solution Architecture</b>	Prepare solution architecture document.	10 OCTOBER 2022

<b>Customer Journey</b>	Prepare the customer journey maps to understand the user interactions & experiences with the application (entry to exit).	23 OCTOBER 2022
<b>Functional Requirement</b>	Prepare the functional requirement document.	23 OCTOBER 2022
<b>Data Flow Diagrams</b>	Draw the data flow diagrams and submit for review.	23 OCTOBER 2022
<b>Technology Architecture</b>	Prepare the technology architecture diagram.	23 OCTOBER 2022
<b>Prepare Milestone &amp; Activity List</b>	Prepare the milestones & activity list of the project.	12 NOVEMBER 2022
<b>Project Development - Delivery of Sprint-1, 2, 3 &amp; 4</b>	Develop & submit the developed code by testing it.	19 NOVEMBER 2022

## 6.2 SPRINT DELIVERY SCHEDULE

### PROJECT PLANNING PHASE

#### Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	10 November 2022
Team ID	PNT2022TMID41218
Project Name	News tracker application
Maximum Marks	8 Marks

### Product Backlog, Sprint Schedule, and Estimation

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	10	High	J ABDUL RAHMAN
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	10	High	J ABDUL RAHMAN
Sprint-1	Login	USN-3	As a user, I can log into the application by entering email & password.	15	High	J ABDUL RAHMAN
Sprint-2	Input Necessary Details	USN-4	As a user, I can search the news in the application	15	High	M G KIRANVARMA
Sprint-2	Data Pre-processing	USN-5	The application searches for news related to the entered details.	15	High	M G KIRANVARMA
Sprint-3	Searching of news	USN-6	As a user, I can search for the accurate news what I want	20	High	P VITALA

Sprint-3		USN-7	As a user, I can get accurate news in the application	5	Medium	P VITALA
Sprint-4	Review	USN-8	As a user, I can give feedback of the application.	20	High	S ANBUMANI



## PROJECT TRACKER, VELOCITY & BURNDOWN CHART

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	10 Nov 2022	20	12 Nov 2022
Sprint-2	20	6 Days	31 Oct 2022	12 Nov 2022	20	13 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	15 Nov 2022	20	17 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

### Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

## 6.3 REPORTS FROM JIRA

		OCT	NOV
NEW-1 Project Development Sprint			
NEW-2 sprint-1			
NEW-11 Web page interface	TO DO		
NEW-12 Html ,Bootstrap,Js,css	TO DO		
NEW-8 spirinit-2			
NEW-13 flask app	TO DO		
NEW-9 sprint-3			
NEW-14 integrate Api	TO DO		
NEW-10 sprint-4			
NEW-15 containerization	TO DO		
NEW-16 Docker	TO DO		

## **7. CODING AND SOLUTIONING**

### **7.1 FEATURE-1**

In this application , we added the IBM database connectivity to store the user activity like signup ,login to the application , API connectivity to get the current news and added an Watson chatbot to the application using this chatbot user can clear our queries.

### **7.2 FEATURE-2**

In feature 2, we have added the search bar in this user can search a particular content or news by simply entering a keyword

### **7.3 DATABASE SCHEMA**

```
CREATE TABLE NEWSTRACKER(  
    NAME VARCHAR(255),  
    EMAIL VARCHAR(255),  
    PASSWORD VARCHAR(255),  
    CON_PASSWORD VARCHAR(255)  
);
```

## 8. TESTING

### 8.1 Test cases

#### Test Scenarios

- Verify user able to see login page
- Verify user able to login to application or not?
- Verify user able to navigate to create your account page?
- Verify user able to recovery password
- Verify login page elements

#### Access visualizations

- User able to see dashboard
- User able to see report
- User able to see stories

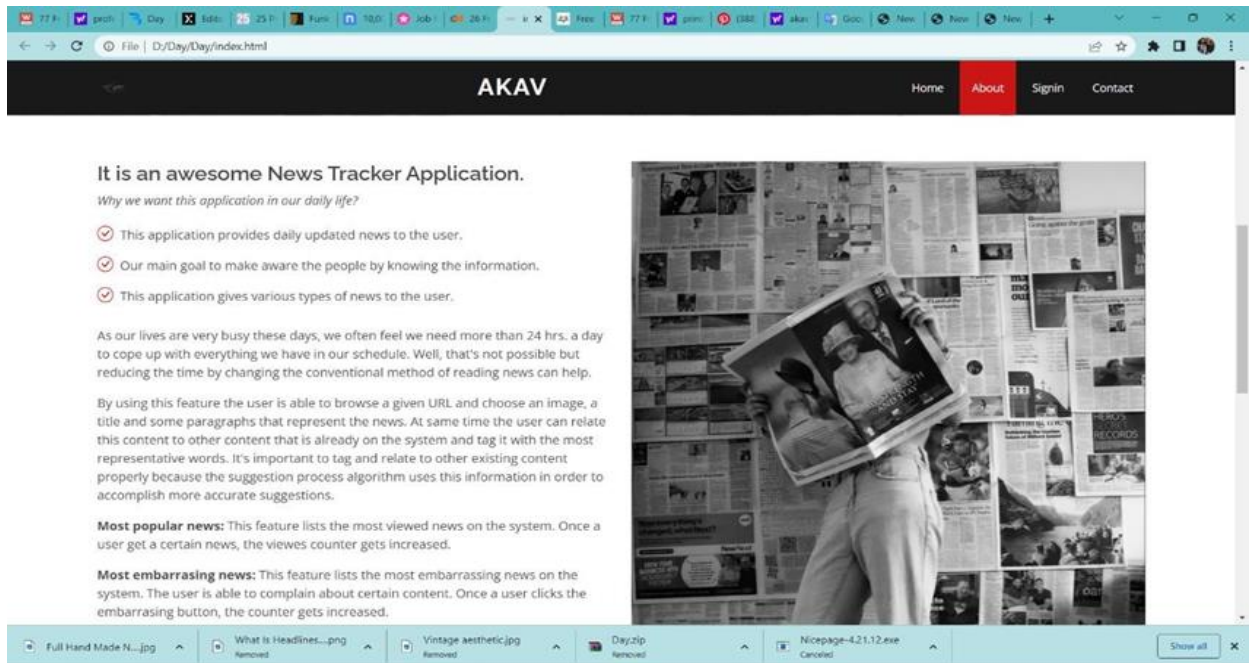
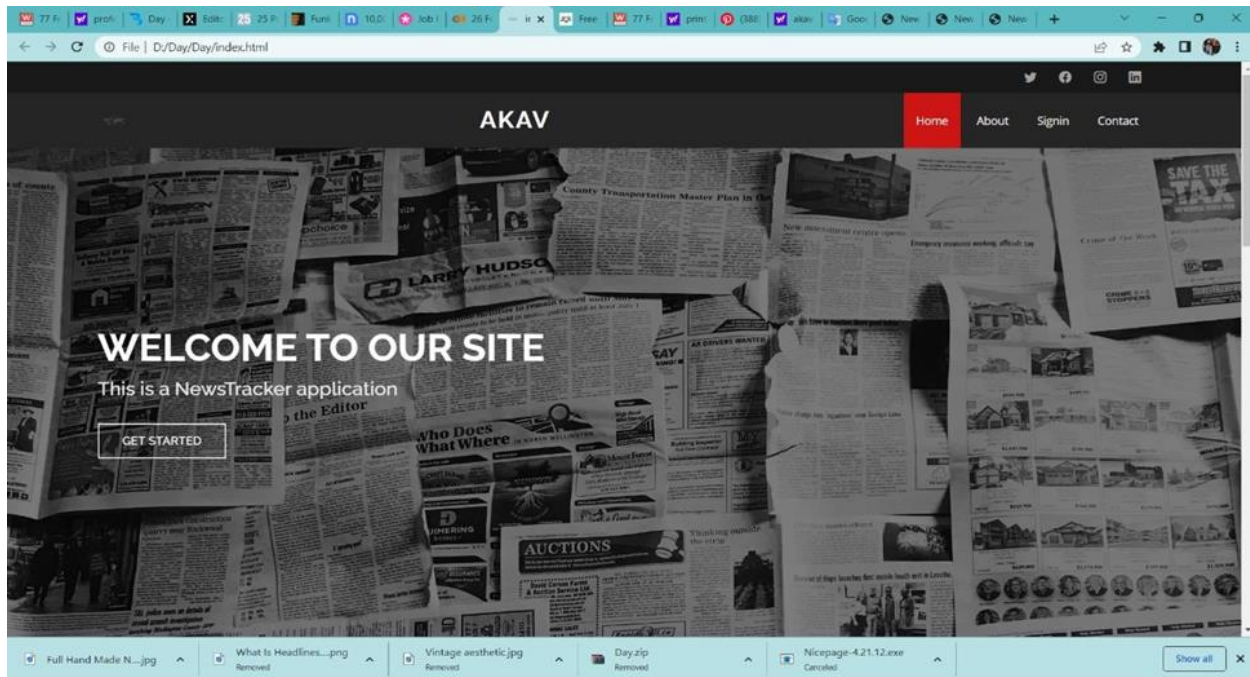
Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

## Test Case Analysis:

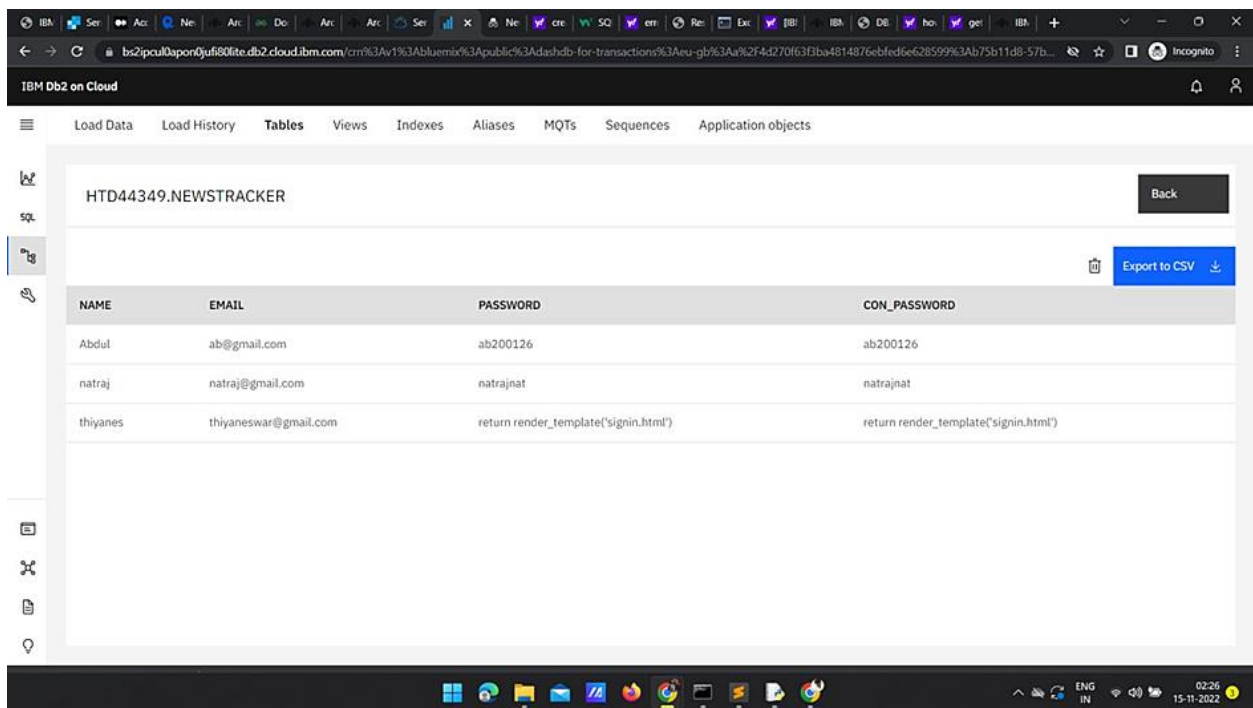
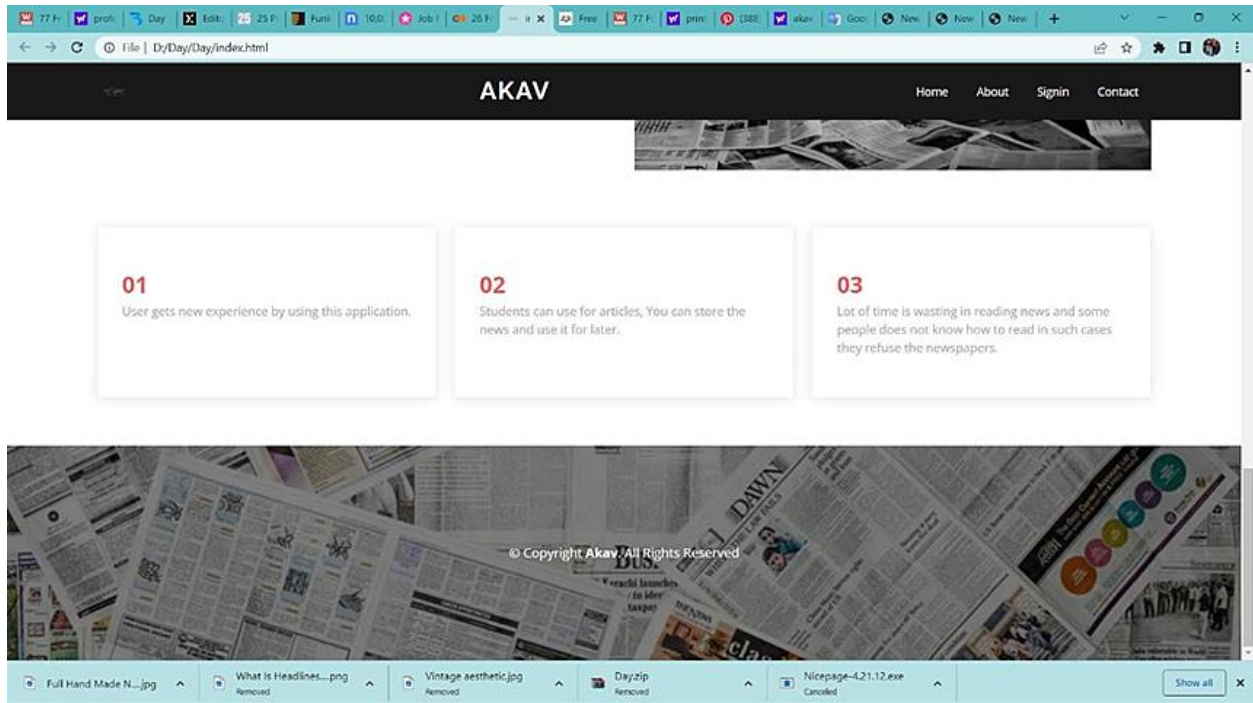
Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2

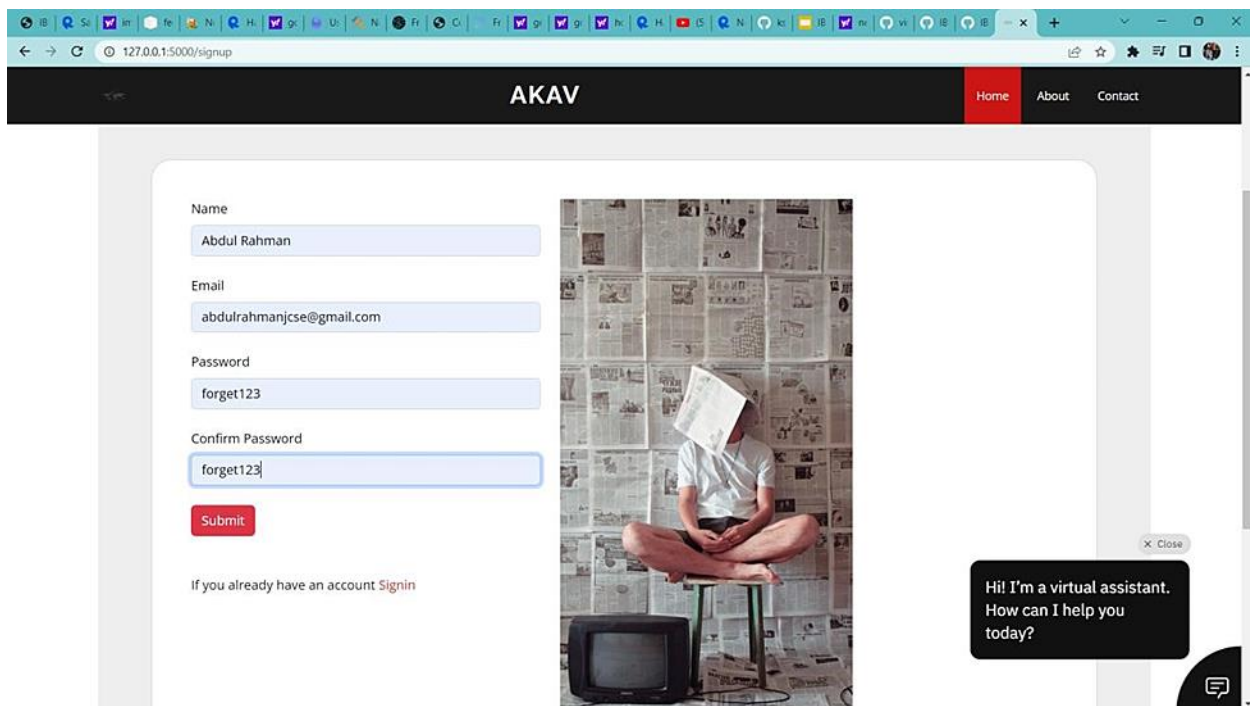
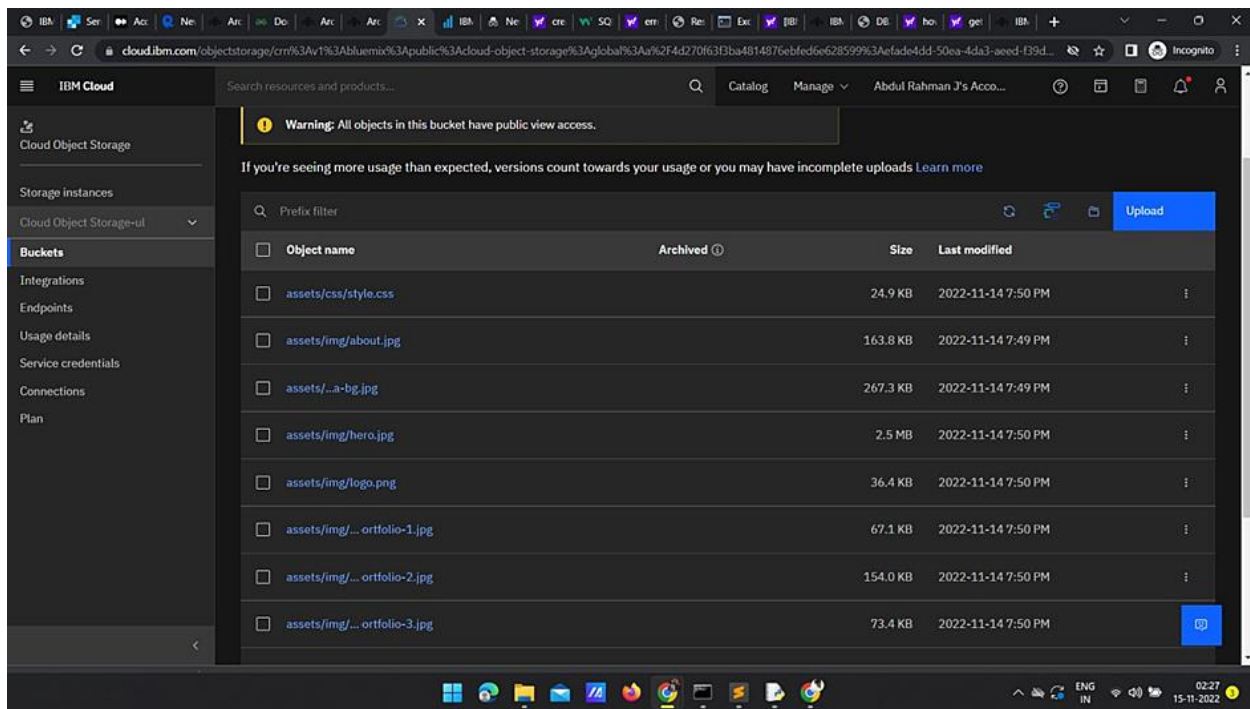
## 9. RESULT

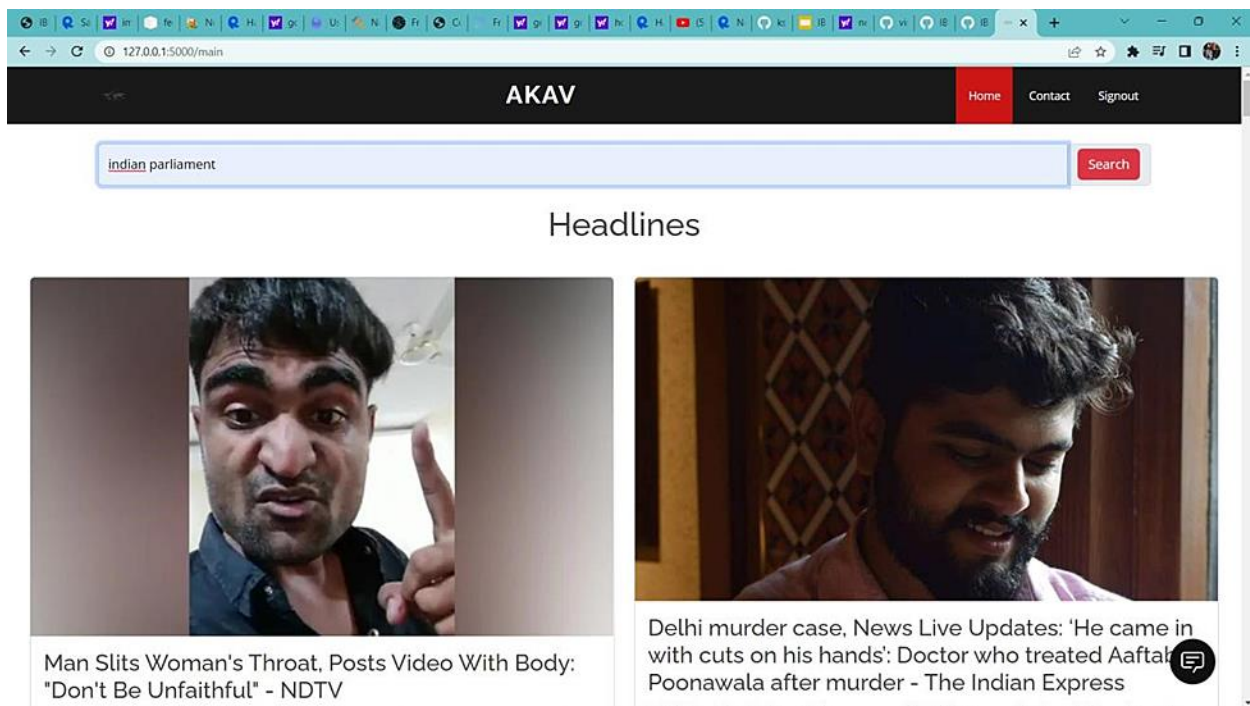
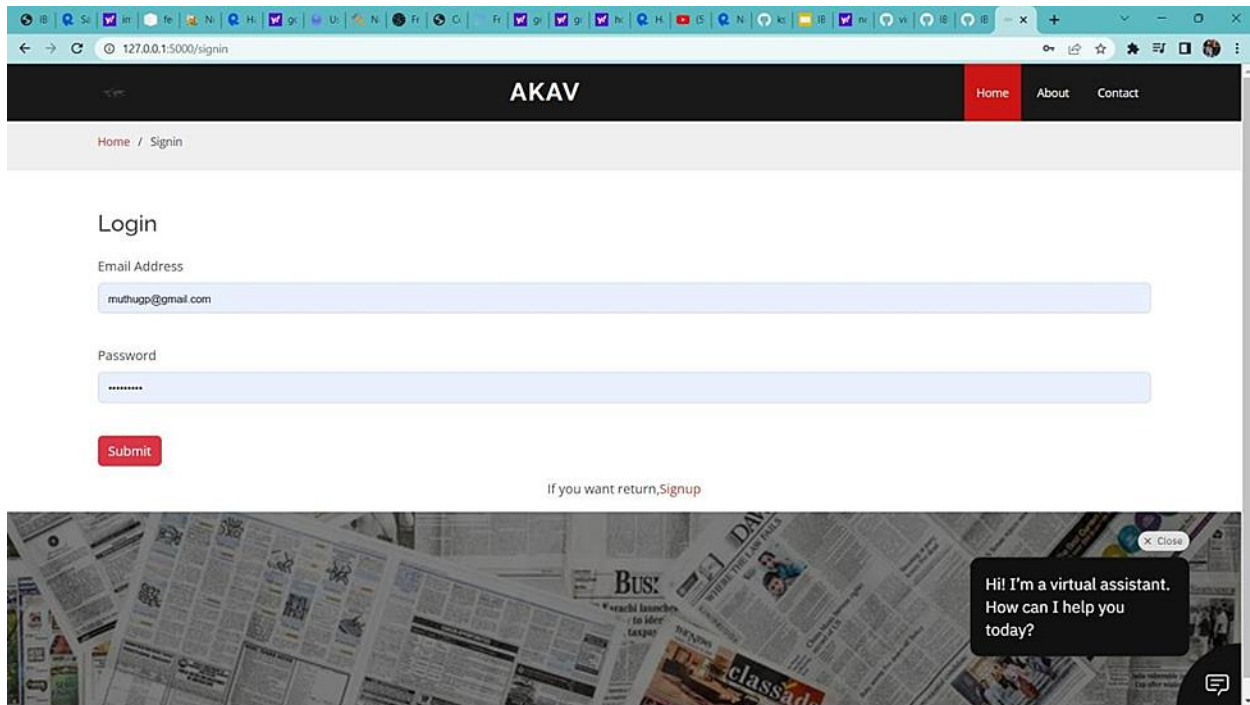
### 9.1 Performance Metrics












AKAV

HomeContactSignout


Enter keyword ....Search

Results for 'indian parliament'



**COUNTERPOINT | Opinion: Do not fall for the symbolism of Rishi Sunak's premiership**

Britain welcomed its first non-White Prime Minister, Rishi Sunak, a practicing Hindu, on the Wednesday. This is a ray of light for...



**New UK PM Sunak cheers his gloomy lawmakers with parliament debut - Reuters**

Britain's new Prime Minister Rishi Sunak earned cheers from his lawmakers and plaudits from political commentators on Wednesday as he locked horns with the opposition Labour Party in parliament for the first time since becoming leader. [Read More...](#)

## **10. Advantages and Disadvantages**

### **Advantages:**

- No extra costs involved
- Provide diversity of news
- In depth information were provide based on the users priority
- 24/7 updates
- Enables you to do multitask

### **Disadvantages**

Only this application access through the internet connection

## **11. CONCLUSION**

News tracker application helps the users to stay focuses on the news which they want to know and stay updated. It also help them to save the news or articles for the future, its mainly helpful for the researchers, students, IT professionals, share markets analytics, etc.

## **12. FUTURE SCOPE**

- We can give more advance software for online portal including more facilities
- We will host the platform on online servers to make it accessible worldwide
- We can add printer in future so that it is easier for the user
- Create the master and slave database structure to reduce the overload of the database queries
- Implement the backup mechanism for taking backup of the news(data) like statistics to shareholders and so on

## **13. APPENDIX**

Source Code

### **Docker file**

FROM python:3.10.6

WORKDIR /app

COPY requirements.txt ./

RUN pip install -r requirements.txt

COPY . .

EXPOSE 5000

CMD ["python", "./app.py"]

## **Main.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

<meta content="width=device-width, initial-scale=1.0" name="viewport">

<title></title>

<meta content="" name="description">

<meta content="" name="keywords">

<!-- Favicons -->

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/img/logo.png" rel="icon">

<!-- Google Fonts -->

<link href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">

<!-- Vendor CSS Files -->

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/aos/aos.css" rel="stylesheet">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">



```

    <link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">

    <link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">

    <link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">

    <link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

    <!-- Template Main CSS File -->

    <link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/css/style.css" rel="stylesheet">

</head>

<body>

<script>

window.watsonAssistantChatOptions = {

    integrationID: "ac43d8ee-d139-4510-bac0-ea881b25733f", // The ID of this integration.

    region: "au-syd", // The region your integration is hosted in.

    serviceInstanceID: "c3f595e8-c61f-461a-8de8-dc3a72dad12", // The ID of your service
instance.

    onLoad: function(instance) { instance.render(); }

};

setTimeout(function(){

    const t=document.createElement('script');

    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";

    document.head.appendChild(t);

});

</script>

```

```

<!-- ===== Header ===== -->

<header id="header" class="d-flex align-items-center">

  <div class="container d-flex align-items-center justify-content-between">

    <a href="index.html" class="logo"></a>

    <h1 class="logo"><a href="index.html">AKAV</a></h1>

    <nav id="navbar" class="navbar">

      <ul>

        <li><a class="nav-link scrollto active" href="">Home</a></li>

        <li><a class="nav-link scrollto" href="#services">Contact</a>

        <li><a class="nav-link scrollto" href="/index">Signout</a></li></li>

      </ul>

      <i class="bi bi-list mobile-nav-toggle"></i>

    </nav><!-- .navbar -->

  </div>

</header><!-- End Header -->

<div class="container">

  <form action="{{ url_for('main') }}" method="post">

    <br>

    <div class="input-group">

      <input type="text" class="form-control" name="keyword" placeholder="Enter keyword
...." aria-label="Recipient's username" aria-describedby="button-addon2"><div class="input-
group-append">

        <span class="input-group-text">

          <input class="btn btn-danger" type="Submit" id="button-addon2"
value="Search"></span></div></div>

    <br>

```



```

    </form>

</div>

{% if all_headlines %}

<center><h1>Headlines</h1></center>

<div class="row row-cols-1 row-cols-md-2 g-4 mx-3 my-3">

    {% for headline in all_headlines %}

        <div class="col">

            <div class="card h-100">

                <div class="card-body">

                    <h3 class="card-title">{{ headline['title'] }}</h3>

                    <p class="card-text">{{ headline['description'] }} <a href="{{ headline[url] }}"
target="blank">Read More...</a></p>

                </div>

                <div class="card-footer">

                    <small class="text-muted">{{ headline['source']['name'] }}</small>

                </div>

            </div>

        </div>

    {% endfor %}

</div>

{% endif %}

{% if all_articles %}

<center><h1>Results for '{{ keyword }}'</h1></center>

<div class="row row-cols-1 row-cols-md-2 g-4 mx-3 my-3">

```

```

    {% for article in all_articles %}

    <div class="col">

        <div class="card h-100">

            <div class="card-body">

                <h3 class="card-title">{{ article['title'] }}</h3>

                <p class="card-text">{{ article['description'] }} <a href="{{ article['url'] }}"
target="blank">Read More...</a></p>

            </div>

            <div class="card-footer">

                <small class="text-muted">{{ article['source']['name'] }}</small>

            </div>

        </div>

    </div>

    {% endfor %}

</div>

{% endif %}

</section>

<section id="cta" class="cta">

    <div class="container" data-aos="zoom-in">

<1 style="color: whitesmoke;">

        <div class="text-center"><div class="copyright">

            &copy; Copyright <strong><span>Akav</span></strong>. All Rights Reserved

        </div>

    </div>


```

```

</l>

</div>

</section><!-- End Cta Section -->

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js">

<!-- Vendor JS Files -->

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/aos/aos.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/glightbox/js/glightbox.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/php-email-form/validate.js"></script>

<!-- Template Main JS File -->

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/js/main.js"></script>

</body>

</html>

```

### **Base.html**

```

<!DOCTYPE html>

<html lang="en">

<head>

```

```

<meta charset="utf-8">

<meta content="width=device-width, initial-scale=1.0" name="viewport">

<title></title>

<meta content="" name="description">

<meta content="" name="keywords">

<!-- Favicons -->

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/img/logo.png" rel="icon">

<!-- Google Fonts -->

<link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|
Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600
,600i,700,700i" rel="stylesheet">

<!-- Vendor CSS Files -->

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/aos/aos.css" rel="stylesheet">

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

<!-- Template Main CSS File -->

<link                                href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/css/style.css" rel="stylesheet">

</head>

```

```

<body>

  <!-- ===== Top Bar ===== -->

  <section id="topbar" class="d-flex align-items-center">

    <div class="container d-flex justify-content-center justify-content-md-between">

      <div class="social-links d-none d-md-block">

        <a href="#" class="facebook"><i class="bi bi-facebook"></i></a>

        <a href="#" class="instagram"><i class="bi bi-instagram"></i></a>

        <a href="#" class="linkedin"><i class="bi bi-linkedin"></i></i></a>

      </div>

    </div>

  </section>

  <!-- ===== Header ===== -->

  <header id="header" class="d-flex align-items-center">

    <div class="container d-flex align-items-center justify-content-between">

      <a href="index.html" class="logo"></a>

      <h1 class="logo"><a href="index.html">AKAV</a></h1>

      <nav id="navbar" class="navbar">

        <ul>

          <li><a class="nav-link scrollto active" href="/index">Home</a></li>

          <li><a class="nav-link scrollto" href="#about">About</a></li>

          <li><a class="nav-link scrollto" href="#services">Contact</a></li>

        </ul>

        <i class="bi bi-list mobile-nav-toggle"></i>

      </nav><!-- .navbar -->

```

```

</div>

</header><!-- End Header -->

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/aos/aos.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/glightbox/js/glightbox.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/php-email-form/validate.js"></script>

<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/js/main.js"></script>

</body>

</html>

```

### **Index.html**

```

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

<meta content="width=device-width, initial-scale=1.0" name="viewport">

<title></title>

<meta content="" name="description">

<meta content="" name="keywords">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/img/logo.png" rel="icon">

```

```
<link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/aos/aos.css" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
```

```
<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/css/style.css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
<script>
```

```
window.watsonAssistantChatOptions = {
```

```
  integrationID: "ac43d8ee-d139-4510-bac0-ea881b25733f", // The ID of this integration.
```

```

    region: "au-syd", // The region your integration is hosted in.

    serviceInstanceID: "c3f595e8-c61f-461a-8de8-dc3a72dadb12", // The ID of your service
instance.

    onLoad: function(instance) { instance.render(); }

};

setTimeout(function(){

    const t=document.createElement('script');

    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/"
(window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";

    document.head.appendChild(t);

});

</script>

<header id="header" class="d-flex align-items-center">

    <div class="container d-flex align-items-center justify-content-between">

        <a href="index.html" class="logo"></a>

        <h1 class="logo"><a href="index.html">AKAV</a></h1>

    <nav id="navbar" class="navbar">

        <ul>

            <li><a class="nav-link scrollto active" href="./index">Home</a></li>

            <li><a class="nav-link scrollto" href="#about">About</a></li>

            <li><a class="nav-link scrollto" href="#services">Contact</a></li>

            <li><a class="nav-link scrollto" href="./signin">Signin</a></li>

        </ul>

```



```

        <i class="bi bi-list mobile-nav-toggle"></i>

    </nav>

</div>

</header>

<!-- ===== Hero Section ===== -->

<section id="hero" class="d-flex align-items-center">

    <div class="container position-relative" data-aos="fade-up" data-aos-delay="500">

        <h1>Welcome to our site</h1>

        <h2>This is a NewsTracker application</h2>

        <a href="/signup" class="btn-get-started scrollto">Get Started</a>

    </div>

</section><!-- End Hero -->

<main id="main">

    <!-- ===== About Section ===== -->

    <section id="about" class="about">

        <div class="container">

            <div class="row">

                <div class="col-lg-6 order-1 order-lg-2" data-aos="fade-left">

```

</div>

<div class="col-lg-6 pt-4 pt-lg-0 order-2 order-lg-1 content" data-aos="fade-right">

<h3>It is an awesome News Tracker Application.</h3>

<p class="fst-italic">

Why we want this application in our daily life?

</p>

<ul>

<li><i class="bi bi-check-circle"></i> This application provides daily updated news to the user.</li>

<li><i class="bi bi-check-circle"></i> Our main goal to make aware the people by knowing the information.</li>

<li><i class="bi bi-check-circle"></i> This application gives various types of news to the user.</li>

</ul>

<p>

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.</p><p>By using this feature the user is able to browse a given URL and choose an image, a title and some paragraphs that represent the news. At same time the user can relate this content to other content that is already on the system and tag it with the most representative words. It's important to tag and relate to other existing content properly because the suggestion process algorithm uses this information in order to accomplish more accurate suggestions.

</p>

<p><b>Most popular news: </b>This feature lists the most viewed news on the system. Once a user get a certain news, the views counter gets increased.</p>

<p><b>Most embarrassing news: </b>This feature lists the most embarrassing news on the system. The user is able to complain about certain content. Once a user clicks the embarrassing button, the counter gets increased.</p>

<p><b>Related news: </b>This feature lists related content.</p>

<p><b>Suggested news and tags: </b>As much content the system has, the better. The algorithm will search for related news and tags to match other content and get suggestions.

```

        </p>
    </div>
</div>

</div>
</section><!-- End About Section -->

<!-- ===== Why Us Section ===== -->
<section id="why-us" class="why-us">
    <div class="container">

        <div class="row">

            <div class="col-lg-4" data-aos="fade-up">
                <div class="box">
                    <span>01</span>
                    <p>User gets new experience by using this application.</p>
                </div>
            </div>

            <div class="col-lg-4 mt-4 mt-lg-0" data-aos="fade-up" data-aos-delay="150">
                <div class="box">
                    <span>02</span>
                    <p>Students can use for articles, You can store the news and use it for later.</p>
                </div>
            </div>
        </div>
    </div>

```

</div>

<div class="col-lg-4 mt-4 mt-lg-0" data-aos="fade-up" data-aos-delay="300">

<div class="box">

<span>03</span>

<p>Lot of time is wasting in reading news and some people does not know how to read in such cases they refuse the newspapers.</p></div>

</div>

</div>

</div>

</section><!-- End Why Us Section -->

<!-- ===== Cta Section ===== -->

<section id="cta" class="cta">

<div class="container" data-aos="zoom-in">

<div class="text-center">

<l style="color: whitesmoke;"><div class="copyright">

&copy; Copyright <strong><span>Akav</span></strong>. All Rights Reserved

</div>

</div>

</div>

</section>

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/aos/aos.js"></script>
```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/glightbox/js/glightbox.min.js"></script>
```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>
```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.js"></script>
```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/vendor/php-email-form/validate.js"></script>
```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/js/main.js"></script>
```

```
</body>
```

```
</html>-->
```

## **Signin.html**

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="utf-8">
```

```
<meta content="width=device-width, initial-scale=1.0" name="viewport">
```

```
<title></title>
```

```
<meta content="" name="description">
```

```

<meta content="" name="keywords">

<!-- Favicons -->

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/img/logo.png" rel="icon">

<!-- Google Fonts -->

<link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Ralewa
y:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i"
rel="stylesheet">

<!-- Vendor CSS Files -->

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/aos/aos.css" rel="stylesheet">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

<!-- Template Main CSS File -->

<link href="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/css/style.css" rel="stylesheet">

```

```

</head>

<body>

<script>

window.watsonAssistantChatOptions = {

  integrationID: "ac43d8ee-d139-4510-bac0-ea881b25733f", // The ID of this integration.

  region: "au-syd", // The region your integration is hosted in.

  serviceInstanceID: "c3f595e8-c61f-461a-8de8-dc3a72dadbd12", // The ID of your service instance.

  onLoad: function(instance) { instance.render(); }

};

setTimeout(function(){

  const t=document.createElement('script');

  t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";

  document.head.appendChild(t);

});

</script>

<!-- ===== Header ===== -->

<header id="header" class="d-flex align-items-center">

  <div class="container d-flex align-items-center justify-content-between">

    <a href="index.html" class="logo"></a>

    <h1 class="logo"><a href="index.html">AKAV</a></h1>

```

```

<nav id="navbar" class="navbar">

  <ul>

    <li><a class="nav-link scrollto active" href="/index">Home</a></li>

    <li><a class="nav-link scrollto" href="/index">About</a></li>

    <li><a class="nav-link scrollto" href="#services">Contact</a></li>

  </ul>

  <i class="bi bi-list mobile-nav-toggle"></i>

</nav><!-- .navbar -->

</div>

</header><!-- End Header -->

<main id="main">

  <!-- ===== Breadcrumbs ===== -->

  <section id="breadcrumbs" class="breadcrumbs">

    <div class="container">

      <ol>

        <li><a href="index.html">Home</a></li>

        <li>Signin</li>

      </ol>

    </div>

  </section><!-- End Breadcrumbs -->

```



```

<!-- ARTICLE -->

<div class="container mt-5">

  <div class="row">

    <div class="col-sm-2"><h3>Login</h3></div>

  </div>


  <form method="POST" action="{{url_for('check_member')}}">

    <div class="mb-3">

      <p class="text-danger">{{msg3}}</p>

      <label for="email" class="form-label">

        Email Address</label>

        <input type="email" class="form-control" name="email" /> <p class="text-danger">{{msg}}</p>

      <br><label for="email" class="form-label">

        Password</label>

        <input type="password" class="form-control" name="password" /><p class="text-
danger">{{msg2}}</p>

      <br>

      <input type="submit" class="btn btn-danger" value="Submit"></div>

    </form>


    <center><p>If you want return,<a href="/signup">Signup</a></p></center>

  </div>

</section>

<section id="cta" class="cta">

  <div class="container" data-aos="zoom-in">

<div style="color: whitesmoke;">

```

```

    <div class="text-center"><div class="copyright">

    &copy; Copyright <strong><span>Akav</span></strong>. All Rights Reserved

    </div>

    </div>

</l>

    </div>

</section><!-- End Cta Section -->


<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js">


<!-- Vendor JS Files -->

    <script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/aos/aos.js"></script>

    <script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>

    <script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/glightbox/js/glightbox.min.js"></script>

    <script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>

    <script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/swiper/swiper-bundle.min.js"></script>

    <script src="https://ibmnewstracker.s3.jp-tok.cloud-object-
storage.appdomain.cloud/assets/vendor/php-email-form/validate.js"></script>


<!-- Template Main JS File -->

```

```
<script src="https://ibmnewstracker.s3.jp-tok.cloud-object-storage.appdomain.cloud/assets/js/main.js"></script>
```

```
</body>
```

```
</html>
```

## **DOCKER FILE**

```
FROM python:3.10.6
```

```
WORKDIR /app
```

```
COPY requirements.txt ./
```

```
RUN pip install -r requirements.txt
```

```
COPY . .
```

```
EXPOSE 5000
```

```
CMD ["python", "./app.py"]
```

## **KUBERNETES**

### **dashboard-adminuser .yaml**

```
apiVersion: v1
```

```
kind: ServiceAccount
```

```
metadata:
```

```
  name: admin-user
```

```
  namespace: kubernetes-dashboard
```

```
---
```

```
apiVersion: v1
```

```
kind: Secret
```

```
metadata:
  name: admin-user-token
  namespace: kubernetes-dashboard
  annotations:
    kubernetes.io/service-account.name: admin-user
type: kubernetes.io/service-account-token
```

---

```
apiVersion: rbac.authorization.k8s.io/v1
kind: ClusterRoleBinding
metadata:
  name: admin-user
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: ClusterRole
  name: cluster-admin
subjects:
- kind: ServiceAccount
  name: admin-user
  namespace: kubernetes-dashboard
```

### **flask\_deployment yaml**

```
apiVersion: apps/v1
kind: Deployment
```

metadata:

name: flask-app

spec:

replicas: 3

selector:

matchLabels:

app: flask-app

template:

metadata:

labels:

app: flask-app

spec:

containers:

- name: flask-app-container

image: flask-app-testing

imagePullPolicy: Never

ports:

- containerPort: 5000

protocol: TCP

## **flask\_ingress yml**

apiVersion: networking.k8s.io/v1

```
kind: Ingress

metadata:
  name: flask-app-ingress
  annotations:
    kubernetes.io/ingress.class: nginx
    nginx.ingress.kubernetes.io/ssl-redirect: "false"

spec:
  # ingressClassName: nginx
  rules:
    - http:
        paths:
          - backend:
              service:
                name: flask-app-service
                port:
                  number: 5000
              path: /
              pathType: Prefix
```

### **flask\_service yaml**

```
apiVersion: v1

kind: Service

metadata:
  name: flask-app-service

spec:
```

type: ClusterIP

ports:

- port: 5000

selector:

app: flask-app

## **ibm\_deployment yml**

apiVersion: apps/v1

kind: Deployment

metadata:

name: flask-app

spec:

replicas: 3

selector:

matchLabels:

app: flask-app

template:

metadata:

labels:

app: flask-app

spec:

containers:

- name: flask-app-container

image: jp.icr.io/newstrackers/newstracker

imagePullPolicy: Always

ports:

- containerPort: 5000

protocol: TCP

## **app.py**

```
from turtle import st
from flask import Flask, render_template, request, redirect, url_for, session
from markupsafe import escape
import ibm_db
from newsapi import NewsApiClient

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=0c77d6f2-5da9-48a9-81f8-
86b520b87518.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=31198;SECURITY=SSL;S

newsapi = NewsApiClient(api_key='9ff3955d6a1e4752b1f35b45ed3c2f44')
global login
login = False
app=Flask(__name__)
@app.route("/")
def home():
    return render_template("index.html")

@app.route("/index")
def index():
    return render_template("index.html")

# helper function
def get_sources_and_domains():
    all_sources = newsapi.get_sources()['sources']
    sources = []
    domains = []
    for e in all_sources:
        id = e['id']
        domain = e['url'].replace("http://", "")
        domain = domain.replace("https://", "")
        domain = domain.replace("www.", "")
        slash = domain.find('/')

```



```

        if slash != -1:
            domain = domain[:slash]
            sources.append(id)
            domains.append(domain)
sources = ", ".join(sources)
domains = ", ".join(domains)
return sources, domains

```

```
@app.route('/addmember', methods = ['POST', 'GET'])
```

```
def addmember():
```

```
    if request.method == 'POST':
```

```
        name = request.form['name']
```

```
        email = request.form['email']
```

```
        password = request.form['password']
```

```
        con_password = request.form['con-password']
```

```
        sql = "SELECT * FROM NEWSTRACKER WHERE name =?"
```

```
        stmt = ibm_db.prepare(conn, sql)
```

```
        ibm_db.bind_param(stmt, 1, name)
```

```
        ibm_db.execute(stmt)
```

```
        account = ibm_db.fetch_assoc(stmt)
```

```
        if account:
```

```
            return render_template('inner-page.html', msg="You are already a member, please login using
```

```
else:
```

```
    insert_sql = "INSERT INTO NEWSTRACKER VALUES (?, ?, ?, ?)"
```

```
    prep_stmt = ibm_db.prepare(conn, insert_sql)
```

```
    ibm_db.bind_param(prepare_stmt, 1, name)
```

```
    ibm_db.bind_param(prepare_stmt, 2, email)
```

```
    ibm_db.bind_param(prepare_stmt, 3, password)
```

```
    ibm_db.bind_param(prepare_stmt, 4, con_password)
```

```
    ibm_db.execute(prepare_stmt)
```

```
    return render_template('signin.html', request="successfully created")
```

```
@app.route('/checkmember', methods = ['POST', 'GET'])
```

```
def check_member():
```

```
    global login
```

```
    if request.method == "POST":
```

```
        email = request.form['email']
```

```
        password = request.form['password']
```

```
        sql = "SELECT * FROM NEWSTRACKER WHERE email = '" + email + "'"
```

```

        stmt = ibm_db.exec_immediate(conn, sql)
        account = ibm_db.fetch_both(stmt)
        if not account:
            return render_template('signin.html', msg = "enter valid email")
        if account['PASSWORD'] == password:
            login = True
            return redirect(url_for('main'))
        return render_template('signin.html',msg2="invalid password")

@app.route('/signup',methods = ['POST', 'GET'])
def signup():
    global login
    login = False
    return render_template('inner-page.html')

@app.route('/signin',methods = ['POST', 'GET'])
def signin():
    global login
    login = False
    return render_template('signin.html')

@app.route('/main',methods = ['POST','GET'])
def main():
    global login
    if login == False:
        return render_template('signin.html',msg3="Signin Required")
    if request.method == "POST":
        sources, domains = get_sources_and_domains()
        keyword = request.form["keyword"]
        related_news = newsapi.get_everything(q=keyword,
                                              sources=sources,
                                              domains=domains,
                                              language='en',
                                              sort_by='relevancy')
        no_of_articles = related_news['totalResults']
        if no_of_articles > 100:
            no_of_articles = 100
        all_articles = newsapi.get_everything(q=keyword,
                                              sources=sources,
                                              domains=domains,

```

```

        language='en',
        sort_by='relevancy',
        page_size = no_of_articles)['articles']
    return render_template("main.html", all_articles = all_articles,
        keyword=keyword)
else:
    top_headlines = newsapi.get_top_headlines(country="in", language="en")
    total_results = top_headlines['totalResults']
    if total_results > 100:
        total_results = 100
    all_headlines = newsapi.get_top_headlines(country="in",
        language="en",
        page_size=total_results)['articles']
    return render_template("main.html", all_headlines = all_headlines)
return render_template("main.html")

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=5000, debug=True)

```

### **Github & Project Demo Link:**

Github link

<https://github.com/IBM-EPBL/IBM-Project-42572-1660668537>

Project demo link

<https://drive.google.com/drive/folders/1EiPwWxqC6IsiL96bcUm5lljGj7rIStbM>





