

IBM-Project-44272-1660723623

News Tracker Application

TEAM DETAILS:

Team ID : PNT2022TMID46366

College Name : A.V.C. COLLEGE OF ENGINEERING

Department : COMPUTER SCIENCE & ENGINEERING

TEAM MEMBERS:

- 1. Ganesh Kumar .G**
- 2. Gokulakrishnan .V**
- 3. Sathish .S**
- 4. Tamil Selvan .S**
- 5. Vishwa Vengadesh .D**

Project Report

CHAPTER	TITLE	PAGENO NO
	ABSTRACT	3
1.	INTRODUCTION	3
	1.1 Project Overview	3
	1.2 Purpose	3
2.	LITERATURE SURVEY	4
	2.1 Existing problem	4
	2.2 References	4
	2.3 Problem statement	5
3.	IDEATION & PROPOSED SOLUTION	6
	3.1 Empathy Map Canvas	6
	3.2 Ideation & Brainstorming	6
	3.3 Proposed Solution	10
	3.4 Problem Solution fit	11
4.	REQUIREMENT ANALYSIS	12
	4.1 Functional requirement	12
	4.2 Non-Functional requirements	13
5.	PROJECT DESIGN	14
	5.1 Data Flow Diagrams	14
	5.2 Solution & Technical Architecture	15
	5.3 User Stories	16
6.	PROJECT PLANNING & SCHEDULING	17
	6.1 Sprint Planning & Estimation	17
	6.2 Sprint Delivery Schedule	18
7.	CODING & SOLUTIONING	19
	7.1 Feature 1	19
	7.2 Feature 2	22
8.	TESTING	23
	8.1 Test Cases	23
	8.2 User Acceptance Testing	24
9.	RESULTS	25
10.	ADVANTAGES & DISADVANTAGES	27
11.	CONCLUSION	28
12.	FUTURE SCOPE	28
13.	APPENDIX	28
	Source Code	28

ABSTRACT

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. INTRODUCTION

1.1. Project Overview

NewsTracker is a fullstack web application which allows users to register along with their favourite topics, upon login the app displays the news based on the user's interest. The news displayed in the app is based on the Newcatcher API and CricbuzzAPI from Rapid API site. A news-sharing app wants to help users find relevant and important news easily every day and also provide explicitly news from that users locality/region which may help to the user.

1.2. Purpose

Enabling users to view news from anywhere at anytime. It also helps to reduce the time to get information about a specific topic. Also enables a person to get an updated news which may help Business people to make business related decisions quickly and correctly.

2. LITERATURE SURVEY

2.1. Existing problem

Physical newspapers are old fashioned in this digital era. They cost money to buy, can easily be damaged, limited amount of information, not flexible to modifications, poor quality. Sometimes may show irrelevant and updated news.

2.2 .References

AUTHOR	PAPER TITLE	YEAR	JOURNAL	CRITICS
Martijn Kleppe and Marco Otte	Analysing and understanding news consumption patterns by tracking online user behaviour with a multimodal research Design	2017	Digital Scholarship in the Humanities	The data collection, pre-processing, and pattern discovery takes more time.
Scott R. Baker Nicholas Bloom Steven J. Davis Kyle J. Kost	Policy News and Stock Market Volatility	2019	National Bureau of Economic Research	The history of thought in financial markets has shown a surprising lack of consensus about a very fundamental question: what ultimately causes all those fluctuations in the price of speculative assets like corporate stocks.
Marios Constantinides , John Dowell , David Johnson , Sylvain Malacria	Exploring mobile news reading interactions for news app personalisation	2015	University College London	Reviewers reported they did not find the adaptive menu beneficial and would prefer a snapshot of articles within multiple categories as opposed to being restricted to one. None reported wanting article summaries despite reading long articles and being probed in the post interviews.

Oscar Westlund	MOBILE NEWS A review and model of journalism in an age of mobile media	2012	Digital Journalism	The importance of trust has been highlighted future research studies can focus on the antecedents of trust Users require lower level of trust.
Wei Guo and Bo Zhang	Research on Development Strategy of News App under the Background of Artificial Intelligence	2019	International Conference on AI and Big Data Application (AIBDA 2019)	Algorithm-based recommendation of this cutting-edge technology will face numerous tests from journalists, social ethics, laws and regulations.

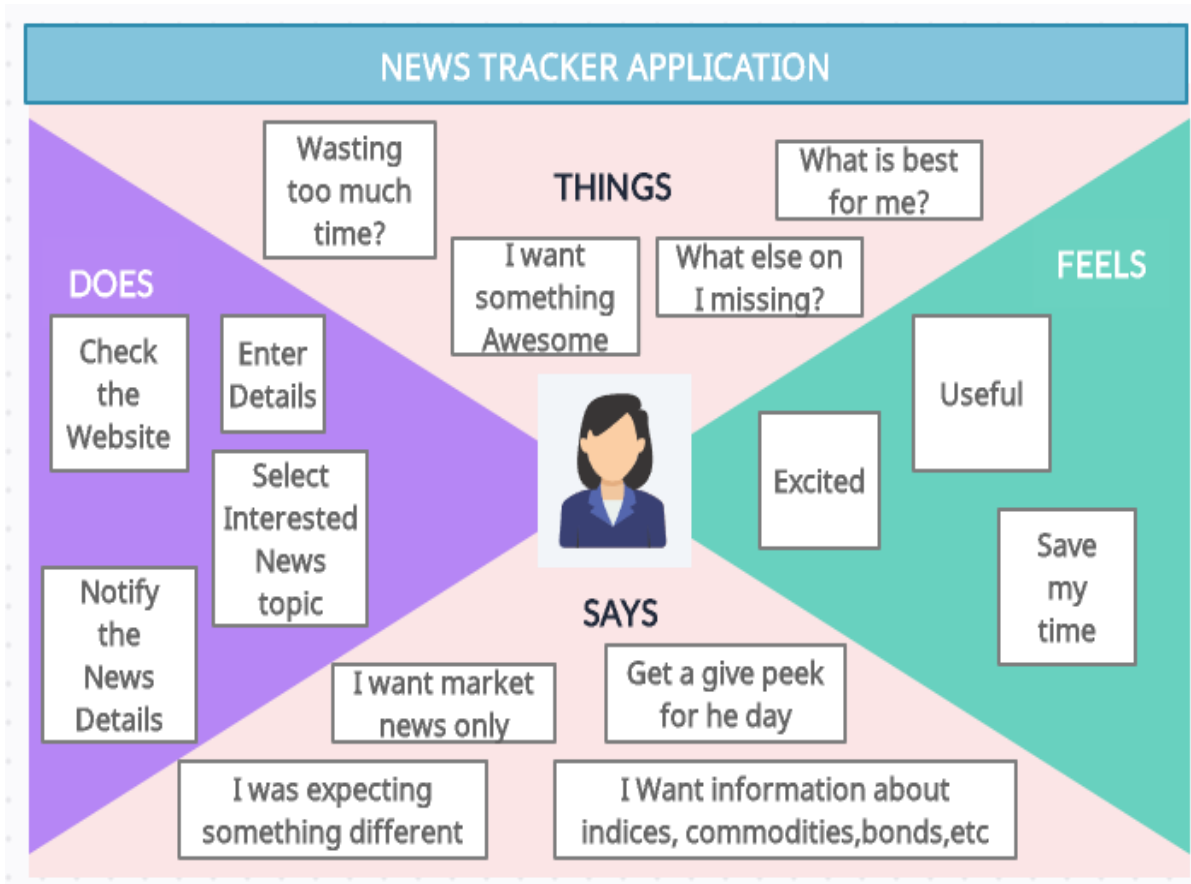
2.3. Problem Statement Definition

Newspaper contains limited , non user/reader specific, Location specific news .There are multiple news-sharing apps available which can be used by a single user and are often spammed with notifications. There is also a lot of unwanted news which gets shared. So it may take a lot of time for the user to find the news he/she likes. A news-sharing app wants to help users find relevant and important news easily every day and also provide explicitly newsfrom that users locality/region which may of help to the user.

Problem Statement (PS)	I am	I'm trying to	But	Because	Which makes me feel
PS-1	Busy Worker	Read News Where ever Me want	I Couldn't have enough time to read news	I Feel Uncomfortable With those Papers.	More Annoying, Irritating

3. IDEATION & PROPOSED SOLUTION

3.1. Empathy Map Canvas



3.2. Ideation & Brainstorming

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

A Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.

C Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) ➔

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

PROBLEM

PROBLEM The user needs a way to get relevant news based on his choices so that the user does not have to spend a lot of time on searching news. News is filled with ads and spams annoys and irritates the user and affects the user experience. Market is full of news with all categories. Users are not interested in all the categories and will be more interested with their personal choices. Traditional way of tracking news is slow and obsolete, user needs a new innovative application to track news with personal based choices. Lack of quick updates for the day results in staying behind in the trend in today's world and tracking the news regularly should be done.



Key rules of brainstorming

To run an smooth and productive session

- | | |
|-------------------|----------------------------|
| ⌚ Stay in topic. | 💡 Encourage wild ideas. |
| ⌚ Defer judgment. | 👂 Listen to others. |
| 🗣️ Go for volume. | 👁️ If possible, be visual. |

Step-2: Brainstorm, Idea Listing and Grouping

Brainstorm

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

🕒 10 minutes

Ganesh Kumar .G

Help to get the news frequently	AD free news will be provided	To share opinion and status
Saving news in favorite	Provide news and send via SMS or mail	Collecting news from all sources

Gokulakrishnan .V

Search option is provided for user	Availability of short news	Feeds of news and show to the user
Global content is to be provided	News must be short and more informative	Linking all news from different sources in one place

Sathish .S

Automatically recommending location features	There is a link option to detect their news	Report app
User can also searching for news through search bar	Fake news will be detected	Sharing news with everyone

Tamil Selvan .S

Push notification is provided	User can search through keywords	Overview of news is given in description
Generating user profile and share their own news	Fake news will be detected	Quick updation

Vishwa Vengadesh .D

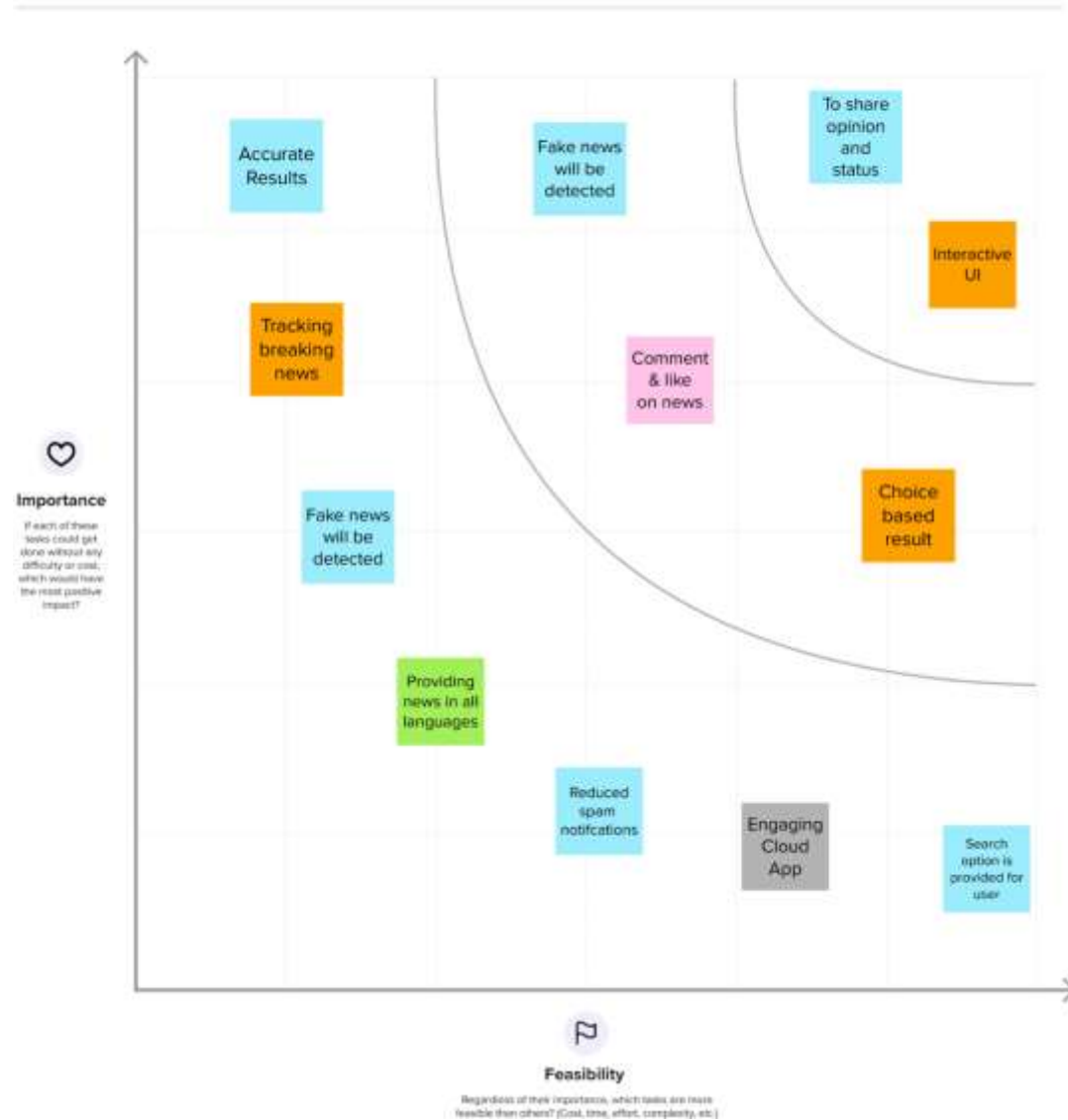
Giving priority to users	Report option for sensitive news	Tabs back is provided in news app
Timings of updated news for references	Gathering information from user	Neglect outdated news

Step-3: Idea Prioritization

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes



3.3. Proposed Solution

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Most people don't like to carry a newspaper with them. Some people want them to be updated only in the area they are interested in.
2.	Idea / Solution description	An application needs to be developed in which users can read news whenever they want and they will be able to customize their area of interest. So that they will be notified, if any new news is updated in their interested areas.
3.	Novelty / Uniqueness	<p>1. A user can read news only from their interested fields rather than reading all the news.</p> <p>2. This application provides users with a trusted and secured ecosystem. News shared through the application is original and spam free.</p>
4.	Social Impact / Customer Satisfaction	Customer satisfaction can be fulfilled by this application because, it is user friendly, easily carryable, handy, etc.
5.	Business Model (Revenue Model)	<p>1. Users can able to install the application from play store at a free of cost so that the number of users will get rapidly increased.</p> <p>2. Users can able to install the application from play store at a free of cost so that the number of users will get rapidly increased.</p> <p>3. Add premium subscription, users who subscribe for premium won't get advertisements.</p> <p>4. An Advertisement-Free feature can be enabled for the users who can read or view news without any popup advertisements.</p>
6.	Scalability of the Solution	As it was an application-based project, correct ideation and execution can develop an application with no bugs and errors, so that the user might like our application and share it to their surroundings, resulting in an increase in our application insights.

3.4. Problem Solution Fit

Project Title: News Tracker Application		Project Design Phase-I - Solution Fit		Team ID: PNT2022TMID46366	
Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS From young people to old people From working professional to jobless person From poor to rich From village people to city people Every one reads news now-a-days.	6. CUSTOMER CONSTRAINTS CC No network, Provide Download option No well organized content No related and interesting and educating content Click Bait(Topic and content are not related) Annoying user interface No customization option	5. AVAILABLE SOLUTIONS AS User can customize what content to read and can search contents Chat bot that solves user queries Providing quick access to favorite topic User friendly interface, avoiding misleading ads Prioritize news according to user interest and location.	Explore AS, differentiate	
	2. JOBS-TO-BE-DONE/PROBLEMS J&P Reading unwanted and irrelevant and repeated content Bad user interface Searching related news Misleading Ads and unorganized contents user unable to customize news content Using internet for previously watched content Forced notifications and ads Providing dark mode	9. PROBLEM ROOT CAUSE RC No user customization. This leads to unorganized and uninterested news. No search bars leads frustration to search contents No service to complain(Chat bot solves queries.) No download option user may not have internet. Light mode may not good for eye. User interface needs to be attractive and easy to use or it make user to lose interest on app Provide notification which related to user wish	7. BEHAVIOUR BE User searching news and wasting time on it User gets frustrated while using bad user interface Misleading ads or topics wasting user time and confuse user User need all types of content but needs their favorite content to be prioritized. User may feel stressed eye. User may avoid notification if it is not related.	Focus on J&P, top for C	
Identify strong TR & EM	3. TRIGGERS TR People asking about latest news When things goes viral When need report about weather, market, sports and etc	10. YOUR SOLUTION SL Providing search bars and content customization tiles Enabling download options and save or pin post options Providing Chat bot Providing Dark Mode Providing like, comments, tag, polling options to develop to develop user interface further more. User can control their notification. They can select content which they need to notified.	8. CHANNELS of BEHAVIOUR CH R1 ONLINE User can customize their news according to their interest. User can interact with community feed and user can report any queries R2 OFFLINE User can save post and then read it for later User can download post and can share it to other people.	Extract online & offline CH of BE	
	4. EMOTIONS: BEFORE/AFTER EM Feels waste of time to read irrelevant content Feels frustrated about misleading news Feels getting lack of information from contents				

.4. REQUIREMENT ANALYSIS**4.1. Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none"> ➤ Registration through Form ➤ Registration through Gmail
FR-2	User Confirmation	<ul style="list-style-type: none"> ➤ Confirmation via Email ➤ Confirmation via OTP
FR-3	Searching	<ul style="list-style-type: none"> ➤ Search the news based on the user interest ➤ Showing the trending news on search ➤ Showing the Category- wise news ➤ User can save the news needed and study later ➤ Help users find content with categorized
FR-4	Real time News	<ul style="list-style-type: none"> ➤ User can see the Real news with Real time update ➤ Auto update news because it fetch news from API ➤ Show the Number of comments an article as a and the number of comment can be used as a measure of comment popularity
FR-5	Location based	<ul style="list-style-type: none"> ➤ User can view the news near to their location ➤ User can track the Location of the news
FR-6	User friendly	<ul style="list-style-type: none"> ➤ User can publish their own articles ➤ User can add images to their articles ➤ Users can see the articles Published by the other users ➤ Push notification are meant to attract users attention by using alerts, even if it's just for a second.

4.2. Non-functional Requirements:

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

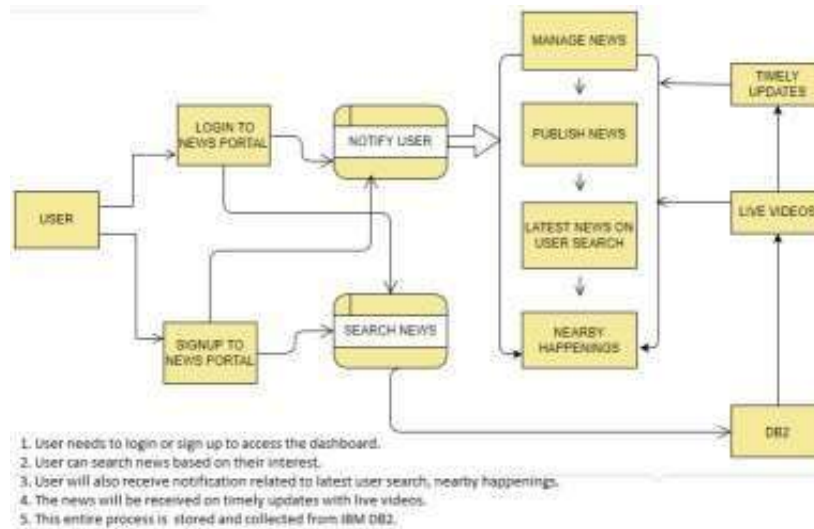
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none"> ➤ The news is updated almost every minute, in all this endless news flow, the user should always be able view exactly information that interest him/her at the moment. ➤ Search and Filtering function will provide the users with the opportunity to search for information of their interest according to specific criteria and parameters.
NFR-2	Security	<ul style="list-style-type: none"> ➤ Authentication and password management ➤ During the comment, many users can be rude or Cruel, so of course, it worth thinking of algorithms that will allow you to block offensive comments, as well as spam.
NFR-3	Reliability	<ul style="list-style-type: none"> ➤ Avoid the Fake news ➤ Instant news at instant time ➤ Track the location of the news
NFR-4	Performance	<ul style="list-style-type: none"> ➤ Keep users In-App for longer with related post ➤ Show users the most relevant story first ➤ Keep your user's attention with list views
NFR-5	Availability	<ul style="list-style-type: none"> ➤ Continuous running for example, 24/7, minimum idle time ➤ History of the previous news that happened before related to the present news
NFR-6	Scalability	<ul style="list-style-type: none"> ➤ Get more user's by encouraging social sharing ➤ Keep users In-App for longer with related post

5. PROJECT DESIGN

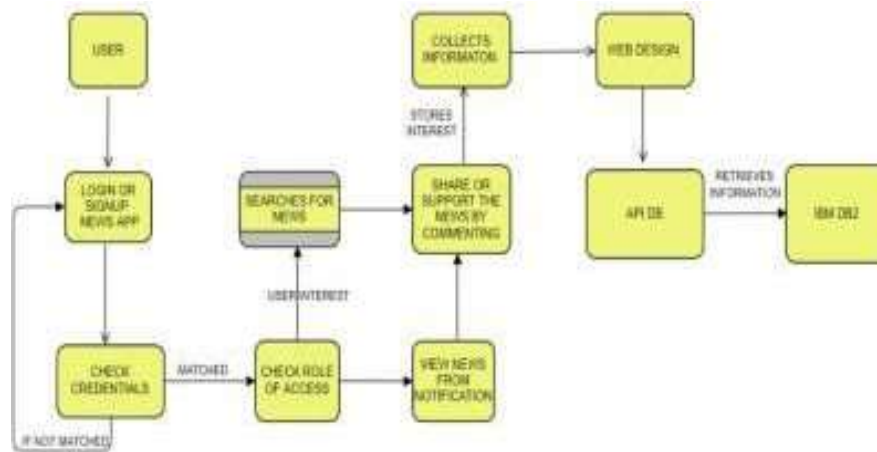
5.1. Data Flow Diagrams:

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.

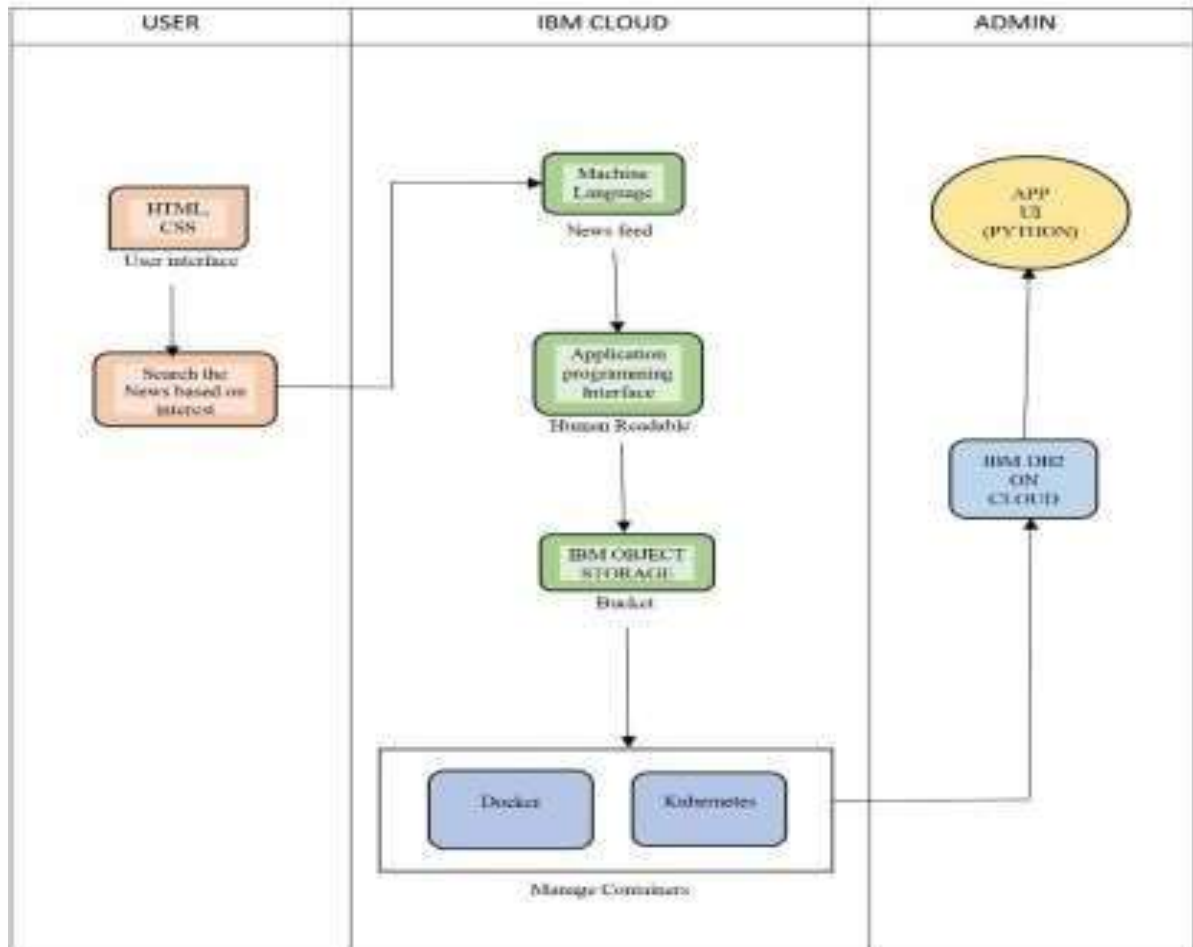
Example: (Simplified)



Example: DFD Level 0(Industry Standard)



5.2. Solution & Technical Architecture



5.3. User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	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 Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can receive password to mail	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can receive confirmation mail.	High	Sprint-1
	Dashboard	USN-6	The news portal and shows the recent NEWS as Breaking NEWS	I can Open and view the news portal	Low	Sprint-2
Client (Web user)	Search Bar	USN-7	User searches for news based on their own interest	I can view the related news and can watch videos	High	Sprint-1
		USN-8	The news can be viewed that is appearing on the dashboard.	I shall click on the news wanted and can open it.	High	Sprint-1
Administrator	Server	USN-9	Provides correct news available from the database.		Medium	Sprint-1
		USN-10	Provide live news with video and audio contents	I can get the news in which I'm interested.	High	Sprint-1

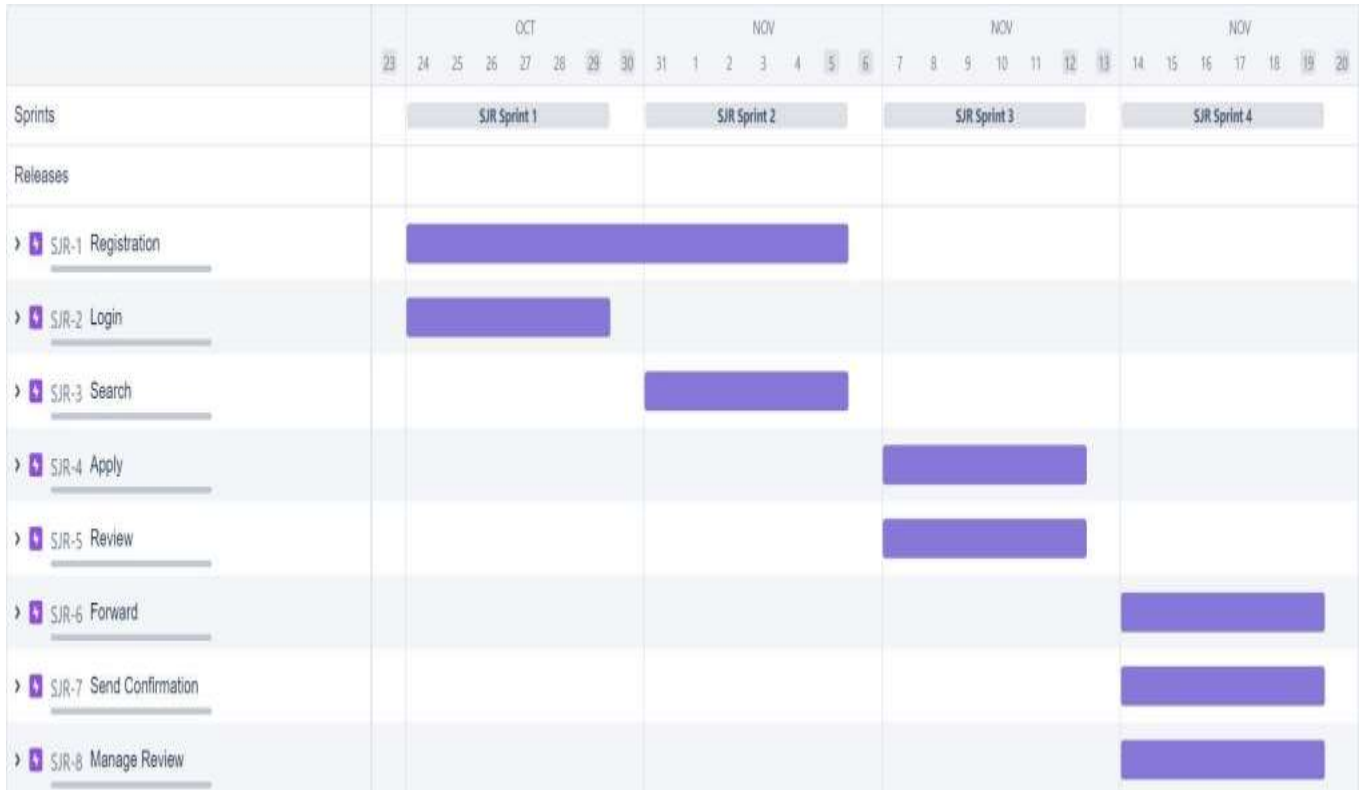
6. PROJECT PLANNING & SCHEDULING

6.1. Sprint Planning & Estimation

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.	2	High	Ganesh Kumar
Sprint-1	Register	USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Vishwa Vengadesh
Sprint-1	Profile	USN-3	As a user, I can register for the application through Facebook	2	Medium	Sathish
Sprint-1	Profile	USN-4	As a user, I can register for the application through Gmail	2	Medium	Tamil selvan
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Gokula krishnan
Sprint-1	Dashboard	USN-6	As a user I should be able to navigate and access all the features hassle free	2	High	Sathish, Tamil selvan
Sprint-1	Layout	USN-7	As a user I should be able to access the portal with different devices with the same comfort	2	High	Gokula krishnan
Sprint-1	Data Store and retrieval	USN-8	Get Data from API and store as JSON in DB2	3	High	Vishwa Vengadesh, Ganesh Kumar
Sprint-1	Data Store and retrieval	USN-9	Get bin data from API and store in DFS	2	High	Vishwa Vengadesh
Sprint-1	User Segregation and data access	USN-10	As a CC executive I should be able to uniquely identify the customer and offer help	1	High	Tamil selvan
Sprint-1	Change code	USN-11	As a administrator I should be able to modify code according to the future	2	High	Sathish

			requirements.			
Sprint-1	Monitor the system	USN-12	As a administrator I should be able to monitor the cloud system and fix errors before customer.	1	High	Ganesh Kumar

6.2. Sprint Delivery Schedule



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	29 Oct 2022	30 Oct 2022	8	02 Nov 2022
Sprint-1	20	6 Days	01 Nov 2022	09 Nov 2022	4	05 Nov 2022
Sprint-1	20	6 Days	07 Nov 2022	12 Nov 2022	5	12 Nov 2022
Sprint-1	20	6 Days	14 Nov 2022	19 Nov 2022	4	19 Nov 2022

7. CODING & SOLUTIONING (Explain the features added in the project along with code)

Voice Recognition:

We can search through the voice input also. So, that user can use their mobile device single handedly. No need to type the words. Mic button was placed after the search bar.

Coding: let mic = document.getElementById("mic"); let
searchinput = document.getElementById("searchinput");

```
// vibrate
function
vibrate(ms
) {
  navigator.vibrate(ms);
}
```

```
function runSpeechRecognition() {
  vibrate(100);

  let recognition = new webkitSpeechRecognition();
  // let recognition = new SpeechRecognition();
  recognition.onstart = () => {
    // toast
    Toastify({
      text: "We are listening you !",
      duration: 2000,
      newWindow: true,
      gravity: "bottom", // `top` or `bottom`
      position: "center", // `left`, `center` or `right`
      stopOnFocus: true, // Prevents dismissing of toast on hover
    })
  }
}
```

```

style: {
    background: "linear-gradient(to right, #00b09b, #96c93d)",
},
onClick: function(){ } // Callback after click
}).showToast();

}
;

recognition.onresult = (event) => {
    var transcripts = event.results[0][0].transcript;
    console.log(transcripts);
    searchinput.value = "";
    searchinput.value = transcripts;

}
;

recognition.onspeechend = () => {
    recognition.stop();

    // toast
    Toastify({
        text: "Speech recognition ended",
        duration: 4000,
        newWindow: true,
        gravity: "bottom", // `top` or `bottom`
        position: "center", // `left`, `center` or `right`
        stopOnFocus: true, // Prevents dismissing of toast on hover
        style: {
            background: "linear-gradient(to right, #00b09b, #96c93d)",
        },
        onClick: function(){ } // Callback after click
    });
}
;

```

```

    }).showToast();

}

;

recognition.start();

}

```

```

searchinput.addEventListener('keypress', function (e) {
  if (e.key === 'Enter') {
    // code for enter
    if(!navigator.onLine){
      Toastify({
        text: "You are offline",
        duration: 4000,
        newWindow: true,
        gravity: "bottom", // `top` or `bottom`
        position: "center", // `left`, `center` or `right`
        stopOnFocus: true, // Prevents dismissing of toast on hover
        style: {
          background: "linear-gradient(to right, #00b09b, #96c93d)",
        },
        onClick: function(){} // Callback after click
      }).showToast();
    }
  }
});

```

7.2 Feature 2:**Chat-Bot:**Watson Assistant Chatbot

```

window.watsonAssistantChatOptions = {
  integrationID: "a6d7e889-59ed-46da-8168-775bffd4611e", // The ID of this integration.
  region: "us-east", // The region your integration is hosted in.
  serviceInstanceID: "97212d7f-a694-4baf-a9a3-40807857702a", // The ID of your service instance.
  onLoad: function(instance) { instance.render(); }
};

setTimeout(function(){
  const t=document.createElement('script');
  t.src="https://webchat.global.assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";
  document.head.appendChild(t);
});

```

8. TESTING :

Software testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. The benefits of testing include preventing bugs, reducing development costs and improving performance. Test Management is a collaborative, quality management solution that offers end-to-end test planning and test asset management, from requirements to defects. Teams can seamlessly share information and use automation to speed complex project schedules and report on metrics in real time for informed release decisions.

8.1 Test Cases:

In software engineering, a test case is a specification of the inputs, execution conditions, testing procedure, and expected results that define a single test to be executed to achieve a particular software testing objective, such as to exercise a particular program path or to verify compliance with a specific requirement. Test cases underlie testing that is methodical rather than haphazard. A battery of test cases can be built to produce the desired coverage of the software being tested. Formally defined test cases allow the same tests to be run repeatedly against successive versions of the software, allowing for effective and consistent regression testing.

Test case ID	Feature Type	Component	Test Scenario
Login Page_TC_O O1	Functional	Home Page	Verify user is able to see the Login/Signup popup when user clicked on My account button
LoginPage_TC_O O2	UI	Home Page	Verify the UI elements in Login/Signup pop up
LoginPage_TC_O O3	Functional	Home page	Verify user is able to log into application with Valid credentials
LoginPage_TC_O O4	Functional	Login page	Verify user is able to log into application with In Valid credential
LoginPage_TC_O O5	Functional	Login page	Verify user is able to log into application with In Valid credential

Expected Result	Actual Result	Status
Login/Signup popup should display	Working as expected	pass
Application should show below UI elements: a. email text box b. password text box c. Login button Create account link. Last password	Working as expected	pass
User should navigate to user account homepage	Working as expected	pass
Application should show 'Incorrect email or password ' validation message.	Working as expected	pass
Application should show 'Incorrect email or	Working as expected	pass
password ' validation message.		
Application should show 'Incorrect email or password ' validation message	Working as expected	pass

8.2 User Acceptance Testing :

Purpose of Document: The purpose of this document is to briefly explain the test coverage and open issues of the News Tracker Application project at the time of the release to User

Acceptance Testing (UAT).

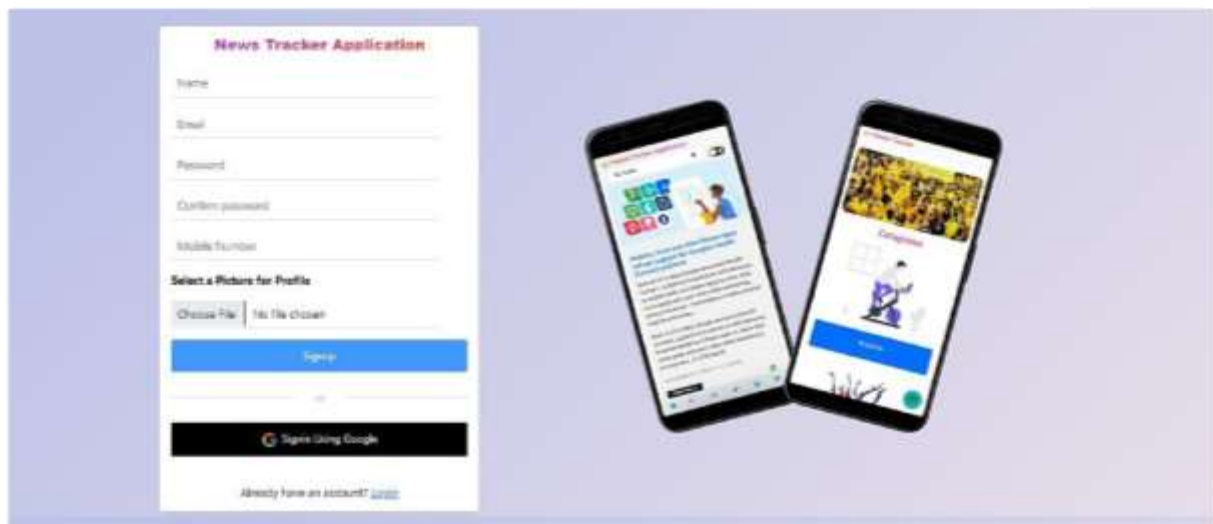
Defect Analysis: This report shows the number of resolved or closed bugs at each severity level, and how they were resolved.

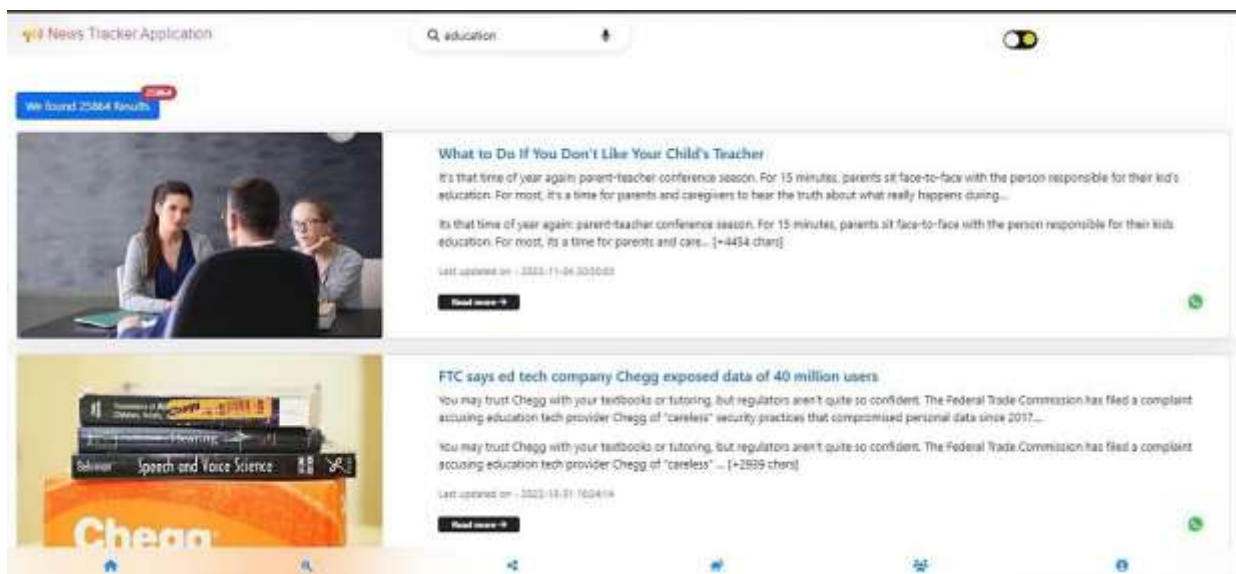
Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	1	3	1	6
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	80

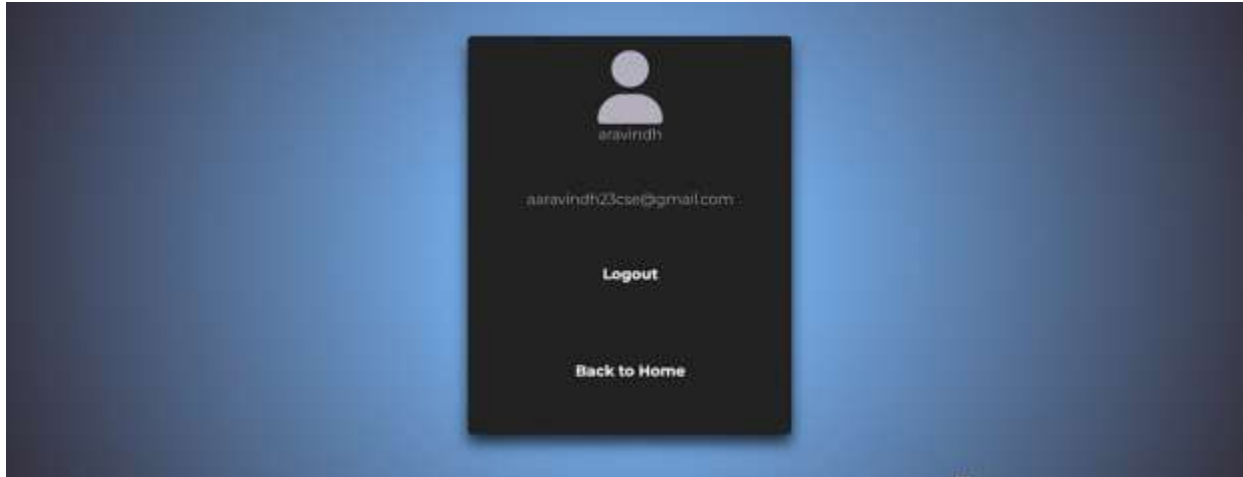
Test Case Analysis: This report shows the number of test cases that have passed, failed, and untested.

Outsource Shipping	3	0	1	3
Exception Reporting	9	0	1	9
Final Report Output	4	0	1	4
Version Control	2	0	0	2

9. RESULTS :







10. ADVANTAGES & DISADVANTAGES:

ADVANTAGES

- Real-time application is allowed and has live layout.
- It has a Built-in support for Google Platform.
- News accuracy of specialized API Authenticated users are allowed Up to date and daily information is available

DISADVANTAGES

- Require data / wifi to get online.
- Companies not making as much money due to free reading for audiences.
- News spreads quicker online - people find out news before they should.
- Lose money - can't get people to pay for digital. Older audiences may not access digital platforms.

11. CONCLUSION:

In our project work, an attempt has been made to develop a News or information-based website. We develop this project that helps people and make them aware so that they can know any news. To establish this website we use various methodologies. To develop this project we faced many problems but we hardly tried to develop this project. The project we've offered here is just the beginning of a new way of interacting with our society. In the meantime, don't forget that compelling visual content will help you be more visible and viral than offline or online newspapers.

12. FUTURE SCOPE:

We are in a process of developing a algorithm that will help the user to read the new postings and news from his recent data sources. In pandemic situations, offline news won't be delivered to anyone, in those time these news apps are the most suitable. In the future, we are going to develop a new categories according to their user locations.

13. APPENDIX:

Source Code:

```
import json
import bcrypt
import ibm_db
import requests
from flask import (Flask, redirect, render_template, request)

app = Flask(__name__)

# ===== for database with
IBM=====
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=b70af05b-76e4-4bca-a1f5-
23dbb4c6a74e.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32716;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=pxb18488;PWD=LsK2CkZjU8qTNHm
V','','')
print(conn)
print(" connection successfull with IBM_DB ")

# signup form data
@app.route('/')
def index():
    return render_template('signup.html')
```

```

# signup form validation
@app.route('/signUpFormData', methods = ['POST', 'GET'])
def signUpFormData():
    if request.method == "POST":
        userName = request.form.get("userName", False)
        userEmail = request.form.get("userEmail")
        userPassword = request.form.get("userPassword")
        userConfirmPassword = request.form.get("userPasswordConfirm")

        if userPassword == userConfirmPassword:
            sql = "SELECT * FROM news_tracker_application WHERE
userEmail =?"

            stmt = ibm_db.prepare(conn, sql)
            ibm_db.bind_param(stmt, 1, userEmail)
            ibm_db.execute(stmt)
            account = ibm_db.fetch_assoc(stmt)
            # print(account)

            bytes = userPassword.encode('utf-8')

            salt = bcrypt.gensalt()

            hashed_password = bcrypt.hashpw(bytes, salt)

            userPassword = hashed_password

            if account:
                return render_template('login.html', msg="You are
already a member, please login using your details")
            else:
                insert_sql = "INSERT INTO news_tracker_application
VALUES (?, ?, ?)"

                prep_stmt = ibm_db.prepare(conn, insert_sql)
                ibm_db.bind_param(prepare_stmt, 1, userName)
                ibm_db.bind_param(prepare_stmt, 2, userEmail)
                ibm_db.bind_param(prepare_stmt, 3, userPassword)
                ibm_db.execute(prepare_stmt)

                # from sendgrid import SendGridAPIClient
                # from sendgrid.helpers.mail import Mail

                # message = Mail(

```

```

        #         from_email='applicationnewstracker@gmail.com
',
        #         to_emails=userEmail,
        #         subject='Welcome to News Tracker
Application',
        #         html_content='')
        # try:
        #         sg =
SendGridAPIClient('SG.29Td0tbNSkyliF9SSPnQNA.4DBECk8ka8RmmYRE50IsRKGOR2QI2raRG3CL
mdsVBVc')
        #         response = sg.send(message)
        #         print(response.status_code)
        #         print(response.body)
        #         print(response.headers)
        # except Exception as e:
        #         print(str(e))

        return render_template('login.html', msg="user Data
saved successfully.. Please login use your credentials")

    else:
        return render_template('signup.html', msg = 'Password and
Confirm Password are not matched' )

# ===== for
serve =====

# login form validation
@app.route('/loginForm', methods=['GET', 'POST'])
def loginForm():
    if request.method == 'POST':

        global email
        email = request.form['userEmail']
        pwd = request.form['userPassword']

        var = email

        sql = "SELECT * FROM news_tracker_application WHERE userEmail =?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, email)
        ibm_db.execute(stmt)
        auth_token = ibm_db.fetch_assoc(stmt)

```

```

print("auth",auth_token)

if auth_token:
    # encoding user password
    userBytes = pwd.encode('utf-8')
    byte_pwd = bytes(auth_token['USERPASSWORD'], 'utf-8')

    # checking password
    result = bcrypt.checkpw(userBytes, byte_pwd)

    if result:
        print("succ")
        url = (' https://newsapi.org/v2/top-
headlines?country=in&apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
        TopHeadlinesResponse = requests.get(url).json()
        return render_template('index.html', msg="Logged in
Successfully", responseData=TopHeadlinesResponse, tmp = 1)
    else:
        return render_template('login.html', msg="Invalid Credentials",
tmp = 0)
    else:
        return render_template('signup.html', msg="User doesn't exist, Please
Register using your details!")
    else:
        return render_template('login.html', title='Sign In')

# home page
@app.route('/home')
def userdata():
    print(email)
    url = (' https://newsapi.org/v2/top-
headlines?country=in&apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
    TopHeadlinesResponse = requests.get(url).json()
    return render_template('index.html',responseData=TopHeadlinesResponse)

# signup form
@app.route('/')
@app.route('/signup')
def signUp():
    return render_template('signup.html')

# login form
@app.route('/login')
def login():
    return render_template('login.html')

```

```

# logout
@app.route('/logout')
def logout():
    return redirect('/login')

# redirect Home
@app.route('/redirectHome')
def redirectHome():
    return redirect('/home')

# about us
@app.route('/aboutus')
def aboutus():
    return render_template('aboutus.html')

# education
@app.route('/education')
def education():
    value = 'education'
    crimenews = ('https://newsapi.org/v2/everything?'
'q='+value+'&' 'from=2022-10-
29&' 'sortBy=popularity&' 'apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
    educationResponse = requests.get(crimenews).json()
    print(educationResponse)
    # return
render_template('NewsTemplate.html',responseData=crimeNewsresponse)    dharun API
key = 7c7062c3a98649b5bc6ffda7fdc5a01b aravindh =
9b6f57afe98440b8b362b1046559d71d
    result_count = educationResponse.get('totalResults')
    if(result_count>0):
        return
render_template('NewsTemplate.html',responseData=educationResponse,returned_input
_search_value=value,result_count=result_count)
    else:
        return render_template('notfound.html')

# Top headlines
@app.route('/TopHeadlines')
def TopHeadlines():
    value = 'Top Headlines'
    url = (' https://newsapi.org/v2/top-
headlines?country=in&apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
    TopHeadlinesResponse = requests.get(url).json()
    result_count = TopHeadlinesResponse.get('totalResults')

```



```

        return
    render_template('NewsTemplate.html',responseData=TopHeadlinesResponse,returned_in
put_search_value=value,result_count=result_count)

# science news
@app.route('/sciencenews')
def crimenews():
    value = 'science'
    sciencenews = ('https://newsapi.org/v2/everything?'
    'q='+value+'&'
    'from=2022-10-29&'
    'sortBy=popularity&'
    'apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
    scienceNewsresponse = requests.get(sciencenews).json()
    print(scienceNewsresponse)
    # dharun API key = 7c7062c3a98649b5bc6ffda7fdc5a01b aravindh =
9b6f57afe98440b8b362b1046559d71d
    result_count =scienceNewsresponse.get('articles')
    result_count = len(result_count)

    if(result_count>0):
        return
    render_template('NewsTemplate.html',responseData=scienceNewsresponse,returned_inpu
t_search_value=value,result_count=result_count)
    else:
        return render_template('notfound.html')

# health news
@app.route('/healthnews')
def healthnews():
    value = 'health'
    healthnews = ('https://newsapi.org/v2/everything?'
    'q='+value+'&'
    'from=2022-10-29&'
    'sortBy=popularity&'
    'apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
    healthNewsresponse = requests.get(healthnews).json()
    result_count = healthNewsresponse.get('totalResults')
    if(result_count>0):
        return
    render_template('NewsTemplate.html',responseData=healthNewsresponse,returned_inpu
t_search_value=value,result_count=result_count)
    else:
        return render_template('notfound.html')

```

```

# sports news
@app.route('/sportsnews')
def sportsnews():
    value = 'sports'
    sportsnews = ('https://newsapi.org/v2/everything?'
                  'q='+value+'&'
                  'from=2022-10-29&'
                  'sortBy=popularity&'
                  'apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')
    sportsNewsresponse = requests.get(sportsnews).json()
    # return
render_template('NewsTemplate.html',responseData=crimeNewsresponse)
    result_count = sportsNewsresponse.get('totalResults')
    if(result_count>0):
        return
render_template('NewsTemplate.html',responseData=sportsNewsresponse,returned_input_search_value=value,result_count=result_count)
    else:
        return render_template('notfound.html')

@app.route('/searchResults', methods =["POST"])
def searchResults():
    if request.method == "POST":
        search_value_name = request.form.get("searchvalue")

        print(search_value_name)

        searchURL = ('https://newsapi.org/v2/everything?'
                     'q='+search_value_name+'&'
                     'from=2022-10-29&'
                     'sortBy=popularity&'
                     'apiKey=7c7062c3a98649b5bc6ffda7fdc5a01b')

        searchResponse = requests.get(searchURL).json()
        result_count = searchResponse.get('totalResults')

        print(result_count) # NUMBER

        if(result_count>0):
            return
render_template('NewsTemplate.html',responseData=searchResponse,returned_input_search_value=search_value_name,result_count=result_count)
    else:

```

```

        return
render_template('notfound.html',responseData=searchResponse,returned_input_search
_value=search_value_name)

# tab user
@app.route('/tabuser')
def tabuser():

    userEmail = email
    print('email',userEmail)
    sql = "SELECT * FROM news_tracker_application WHERE userEmail =?"
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt, 1, userEmail)
    ibm_db.execute(stmt)
    auth_token = ibm_db.fetch_assoc(stmt)

    return render_template('userinfo.html', msg=auth_token)

# logout
@app.route('/logout')
def logoutform():
    email = ''
    return render_template('login.html', msg= 'successfully logged out')

#===== server details
=====

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

```

GitHub:

<https://github.com/IBM-EPBL/IBM-Project-44272-1660723624>