NEWS TRACKER APPPLICATION

USING CLOUD

A Project report submitted in partial fulfilment of 7th semester in degree of

BACHELOR OF ENGINEERIN

IN

COMPUTER SCIENCE AND ENGINEERING

Submitted by

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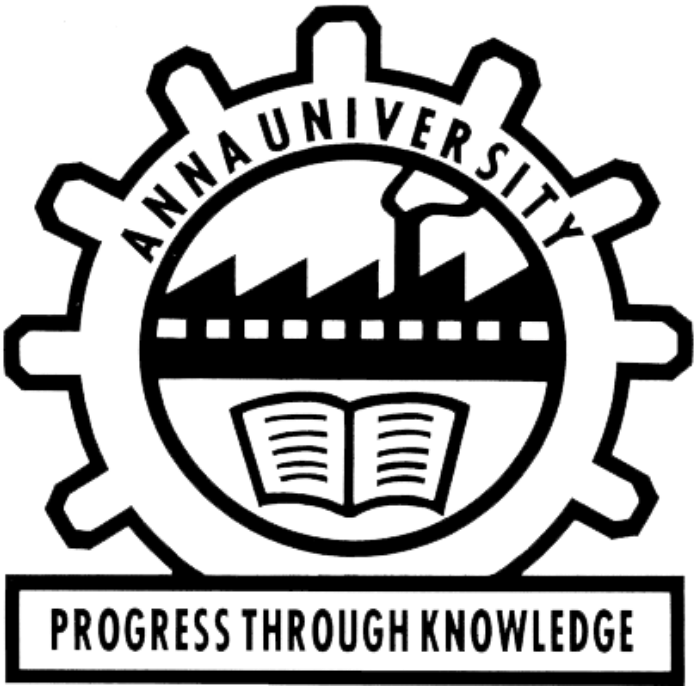

THE KAVERY ENGINEERING COLLEGE,MECHERI
(ANNA UNIVERSITY)

BONAFIDE CERTIFICATE

Certified that this project report ”**NEWS TRACKER APPLICATION”** is the bonafide record work done by Mr,VIGNESH,J(612719104018), **Mr THIYAGU,M** (612719104069), **Mr DHAVASI,K** (612719104018), **Mr GOWRISHANKAR,K** (612719104023) for **IBM-NALAIYATHIRAN** in **VII** semester of **B.E.,** degree course **in Computer Science and Engineering** branch during the academic year of 2022 - 2023.

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ABSTRACT

As world's technology is rapidly growing we have fast connection and network to instantly connect to other person. Day to day use in mobile, tablets and laptop is increasing, most of the people already have this facilities. In this fast and information oriented world we need to stay updated with every incidents and news too. This News app is android mobile application where user have access to latest news from 120+ newspapers from 50+ countries. The main focus of this application is to connect news articles from all around the world and deliver it to user as fast as possible in best visualize way.

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News Tracker Application

1. INTRODUCTION

This app is a news application. This application will show the news about the world. This is better than old conventional newspapers as you can see news anytime and anywhere now. This will also have live updates. This app will have some other features like adding your own news as an editor and people can see your published news too.

1.1 Project overview

The purpose of the project is to develop an application which will display news articles and videos verified and approved at backend .User can browse news articles and videos through various categories. App will enable user to view news details, images, and video .Users can also bookmark any news article/video for future use.The application will have three type of user's at backend one will be admin manager with having full access to backend features including user and content management. Whereas the other two users will be reporters and editors will have limited access to backend features.The reporters will be creating news articles and videos on the other hand editors will have responsibility to approve and publish the articles and videos added by reporters. Both users will be added to the system by admin.

1.2 Purpose

In this fast moving world where people find little time to spend with their own family, it is difficult to find time to read newspaper and stay updated with the current affairs. Reading newspaper might sometimes be time taking considering the size of the article. Sometimes people give the article a skip due to lethargy if it is too long. Information through listening and visuals is quickly perceived compared to reading. To make things easier, the NewsApp andoid application can be used to scan the headlines from the newspaper and fetch relevant videos from the world wide web.

2.LITERATURE SURVEY

2.1 Existing problem 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.

2.2 References

Like articles, websites, blogs. **https://techvidvan.com/tutorials/android-news-app-project-sourcecode/ https://www.ripublication.com/**

2.3 Problem Statement Definition

★ The manual system of newspaper involves all the clerical work, which is a cumbersome and complicated job. In today's fast life it is difficult for users to get news at their move.

★ The user needs a way to organize the news on daily basis so that he can cope up with daily events inhis tight schedule.

★ The user wants to read news only about particular topics so that he can be informed about his interest.

★ The user wants to get informed from only certified news outlets .

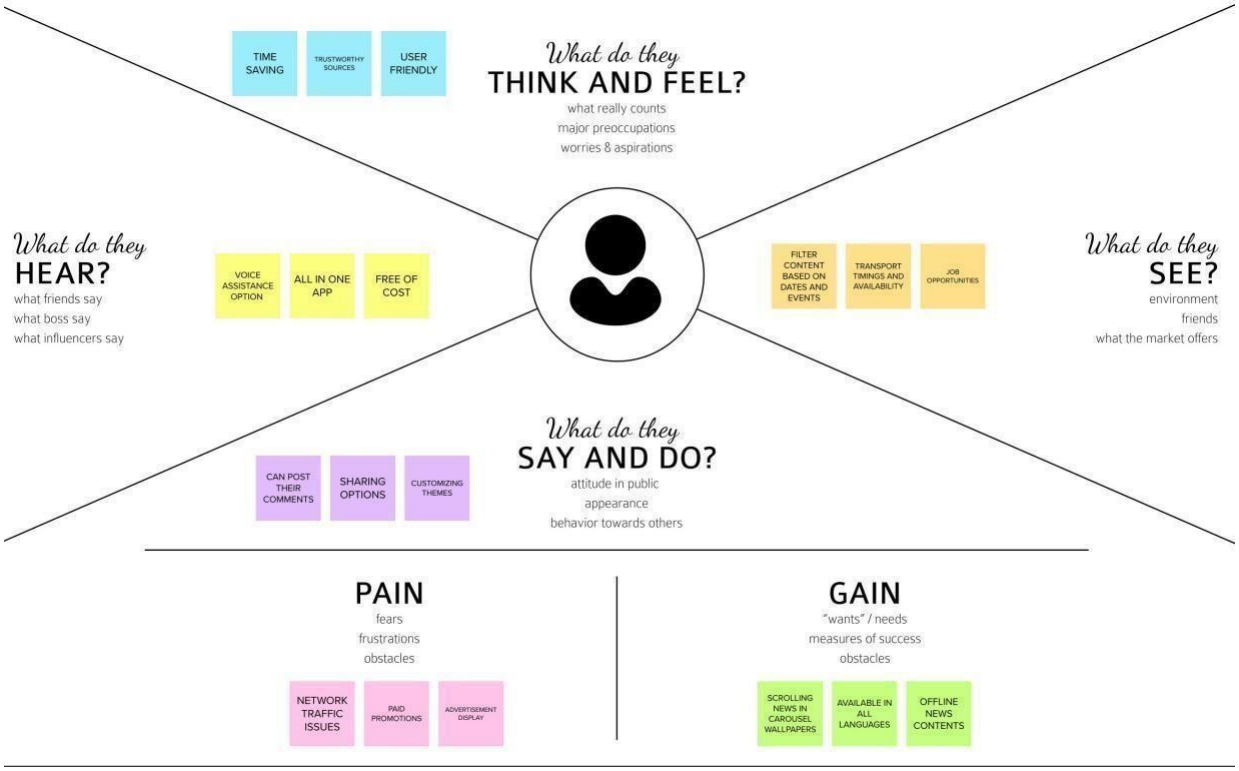
★ The user needs a way to search about the news on topics he wants to.

★ The user wants to know the news about his surrounding using GPS location.

3.IDEATION & PROPOSED SOLUTION

3.1

Empathy Map Canvas

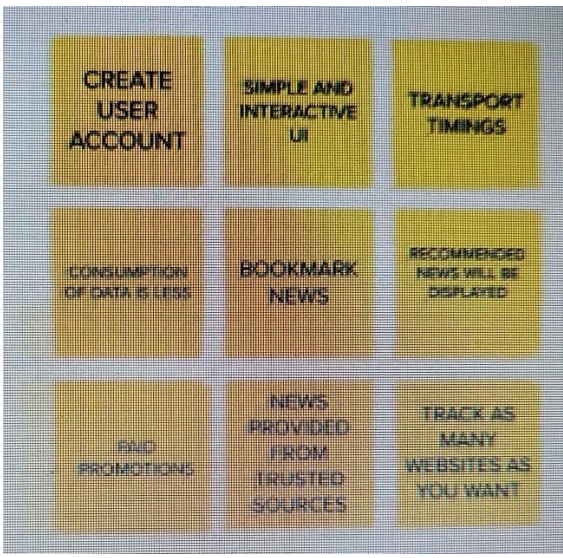


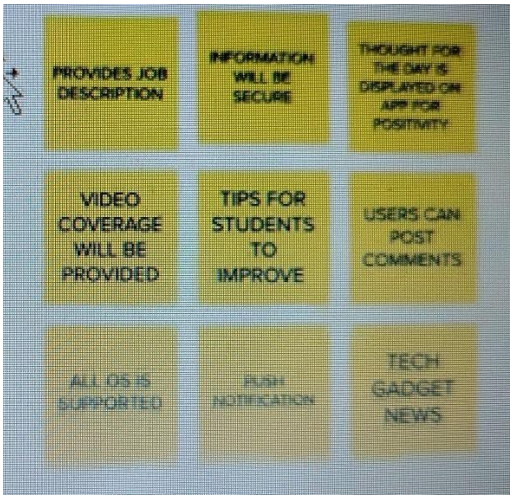
3.2

Ideation & Brainstorming

VIGNESH.J

THIYAGU.M





DHAVASI.K

GOWRISHANKAR.K

3.3

Proposed Solution

S.NO	PARAMETERS	DESCRIPTION
1.	Problem statement (problems to be solved	To help customer to access NEWS using CloudApplication.
2.	Idea/solution description	Making the customer to access news in few touch, providing authorized news, cloud based app, With tons of features to make it exciting
3.	Novelty/Uniqueness	Profile based account, like and share, downloadblogs, links to original publishers are provided.
4.	Social Impact/Customer satisfaction	Customer Satisfaction, Customer can follow NEWSpublishers, like and share feature.
5.	Business Model (Revenue)	Showing ad, Showing a particular publishers NEWS and blogs.
6.	Scalability of the solution	Enabling the system to scalable according to thecustomers need

3.3Problem Solution fit

4.REQUIREMENT ANALYSIS

4.1Functional requirement

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through online application Registration through Gmail Registration through website
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	login	Login through browser directly by entering username and password Login through email
FR-4	User account details	Updating personal data of his/her Profile
FR-5	User interaction	View the related news by subscripted or requested page
FR-6	Logout	Save last visit contents and Sign out

4.2 Non-functional Requirements:

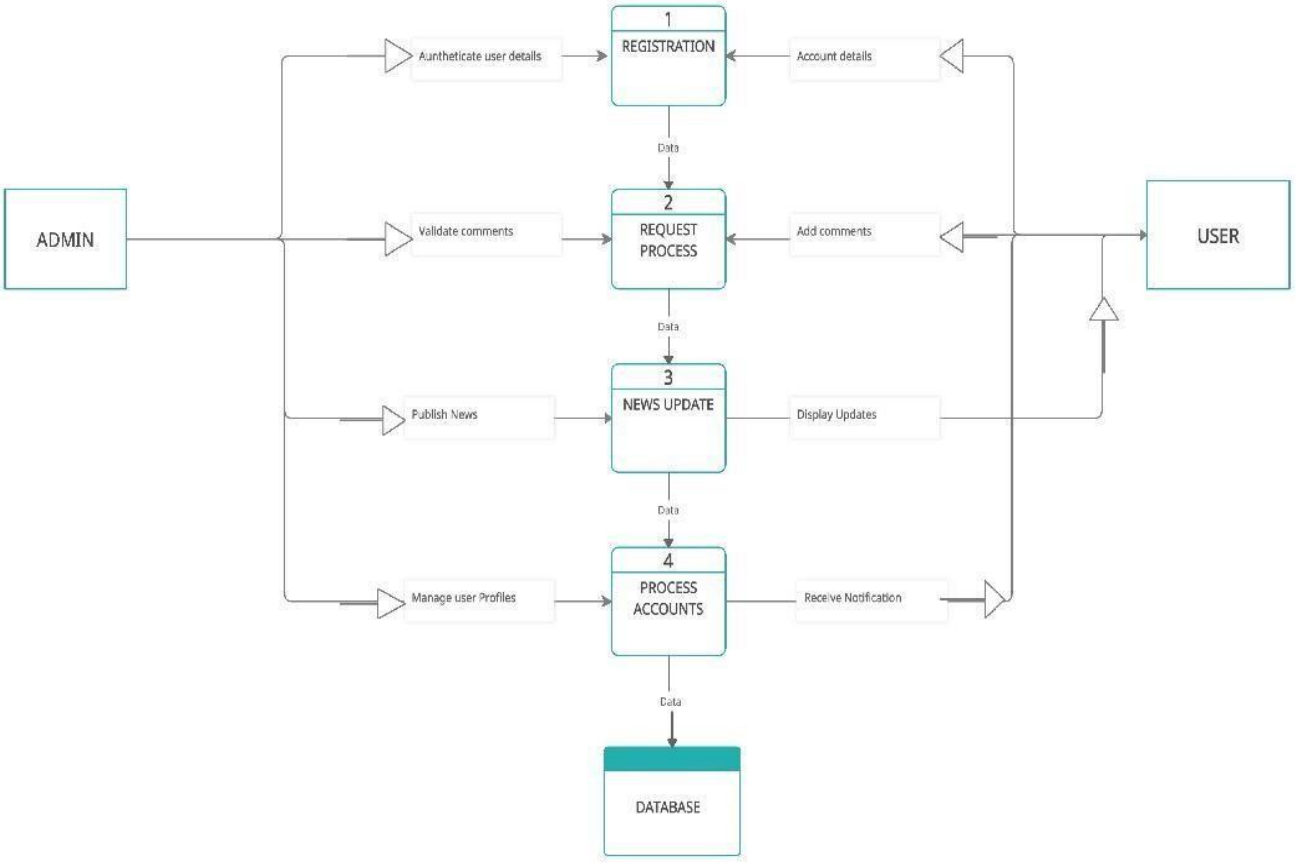
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	This app is easy of use interface which is handy and End user can receive push notification.So that users would not want to miss the latest news.
NFR-2	**Security**	This app ensures user's data should be secure and must not be leaked to an outsider.How well are the system and its data protected against attacks
NFR-3	**Reliability**	How often does the system experience critical failures? How much time does it take to fix the issue when it arises ?Check the percentage of the probability of failure, or failure rate, to determine the reliability of a system.
NFR-4	**Performance**	Explains how long a user must wait before the target operation happens (the page renders.) given the overall number of users at the moment. But it's not always like that. Performance requirements may describe background processes invisible to user

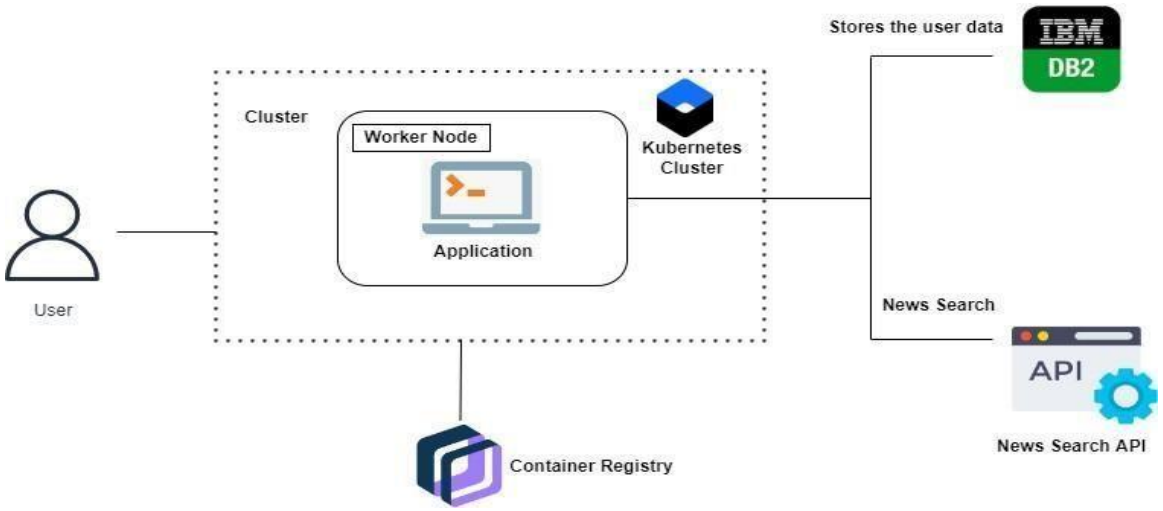
NFR-5	**Availability**	Availability describes how likely the system is accessible to a user at a given point in time.
NFR-6	**Scalability**	This app defines scalability is the ability of the application to handle an increase in workload without performance degradion, or its ability to quickly enlarge.

5.PROJECT DESIGN

5.1Data Flow Diagrams



5.2 Solution & Technical Architecture



5.3User 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 sign up with google	I can register & access the dashboard with Gmail or in Browser Login	Medium	Sprint-1
Customer (Web user)	Login	USN-4	As a user, I can log into the application by entering email & password	I can view all types of informations through this application	High	Sprint-1
	Dashboard	USN-5	As a user , I can edit Profile to update my personal data	I can view that personal data got updated	High	Sprint-2
		USN-6	I want to read news based on my filter contents	News contents are filtered based on user	Medium	Sprint-2
Customer Care Executive	Help	USN-7	Get weekly report of user reviews	I can monitor the effectiveness of user review	High	Sprint-2
Administrator	Admin access	USN-8	As a system admin i want to able to configure user settings so that i can controll access	Access controll by system admin initiated	High	Sprint-2

6.PROJECT PLANNING & SCHEDULING

6.1Sprint Planning & Estimation

TITLE	DESCRIPTION	DATE
Prepare Empathy Map	Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements	06 Nov 2022
Ideation Brain Storming	List the by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance.	06 Nov 2022

Proposed Solution	Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.	06 Nov 2022
Problem Solution Fit	Prepare problem solution fit document	06 Nov 2022
Solution Architecture	Prepare solution architecture document.	06 Nov 2022
Customer Journey	Prepare the customer journey maps to understand the user interactions & experiences with the application (entry to exit).	06 Nov 2022
Solution Requirement	Prepare the functional requirement document	06 Nov 2022

Data Flow Diagrams	Draw the data flow diagramsand submit for review.	05 Nov 2022
Technology Architecture	Prepare the technology architecture diagram.	05 Nov2022

Prepare Milestone &Activity List	Prepare the milestones & activity list of the project.	05 Nov 2022

Project Development - Delivery of Sprint-1, 2, 3& 4	Develop & submit the developed code by testing it.	05 Nov 2022

6.2 Sprint Delivery Schedule

Sprint-1	Funcation 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 my password	5	High	Vignesh.j Gowrishanker.s
Sprint-1		USN-3	As a use, I can register for the application By entering email& password	5	Medium	Thiyagu.m Dhavasi.k
Sprint-1	Login	USN-4	As a user, I can login into the application	5	High	Vignesh.j Thiyagu.m
			by entering email & password			
Sprint-2	Dashboard	USN-5	As user, I can choses the interest and choices of news I want to see for the first time in dashboard.	10	High	Vignesh.j Dhavasi.k
Sprint-2	Dashboard User Interface	USN-11	Administrator designing the user interface	10	Medium	Thiyagu.m Dhavasi.k
Sprint-3		USN-6	As a user I can go through the feed of news filtered according to my wish.	10	High	Vignesh.j Dhavasi.k
Sprint-3		USN-7	As a user, I can logout my account in settings.	10	Medium	Vignesh.j Thiyagu.m
Sprint-4		USN-8	As a user, I can update my interst and choice in account settings.	10	Medium	Gowrishankar.s Thiyagu.m
Sprint-4	Chat bot Query	USN-9	Solve issues brought up by client	5	Medium	Vignesh.j Dhavasi.k
Sprint-4		USN-10	Rooll out update and bug fixes	5	High	Thiyagu.m Dhavasi.k

6.3 REPORT FROM JIRA

7.CODING & SOLUTIONING

```
from flask import Flask,
render_template,request,flash,redirect,url_for,session from newsapi import
NewsApiClient import ibm_db import requests from flask_sqlalchemy import
SQLAlchemy app = Flask(__name__) app.app_context().push()
```

```
app.config['DEBUG'] = True
app.config['SQLALCHEMY_DATABASE_URI'] =

'sqlite:///weather.db' db = SQLAlchemy(app) class

City(db.Model):

    id = db.Column(db.Integer, primary_key=True)

name = db.Column(db.String(50), nullable=False)

app.secret_key='a'

connection = ibm_db.connect("DATABASE=bludb ; HOSTNAME=54a2f15b-5c0f-46df-8954-
7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud; PORT= 32733; SECURITY=SSL
SSLServerertificate=/Users/pradeep/PycharmProjects/Flask SQLite/certificate.crt;
UID=ssr73017; PWD=zQUhCA8HIIV18nxT;",'','' )


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



@app.route('/register', methods=['GET', 'POST'])
def register():
 if request.method == 'POST':
     try: username =
      request.form['username'] mail =
      request.f
      request.form['contact']
      password                                    = request.form['password']
       query = "    "
      stmt = ibm_db.prepare(connection, query)
      ibm_db.bind_param(stmt, 1, username)
      ibm_db.bind_param(stmt, 2, mail)
      ibm_db.bind_param(stmt, 3, contact)
      ibm_db.bind_param(stmt, 4, password)
      ibm_db.execute(stmt)
      flash("Registered Successfully","success")
     except: flash("Error in Insert Operation",
         "danger")
     finally:
         return redirect(url_for("index"))
         con.close()
 return render_template('register.html')
```

INSERT INTO USERS VALUES(?,?,?,?)

```
@app.route('/login', methods=['GET', 'POST'])
def login(): global userid if request.method
== "POST": username =
request.form[
=
request.form['password'] query = ""
stmt =
    ibm_db.prepare(connection, query)
    ibm_db.bind_param(stmt, 1, username)
    ibm_db.bind_param(stmt, 2, password)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)
    if account:
        session['Loggedin'] = True
        session['id'] = account['USERNAME']
```

SELECT * FROM USERS where username=? and password=?

```
        session['username'] = account['USERNAME']
        return redirect("/news")
    else:
        flash("Oops Username and Password Mismatch", "danger")
        return redirect(url_for("index"))


@app.route("/news")
def home():
    api_key = '25560f3cf53c433c9807c60595b373a6'

    newsapi = NewsApiClient(api_key=api_key)

    top_headlines = newsapi.get_top_headlines(sources="bbc-news")
    all_articles = newsapi.get_everything(sources="bbc-news")
    t_articles = top_headlines['articles'] a_articles =
    all_articles['articles']

    news = []
    desc = []
    img = []
    p_date = []
    url = []

    for i in range(len(t_articles)):
        main_article = t_articles[i]

        news.append(main_article['title'])
        desc.append(main_article['description'])
        img.append(main_article['urlToImage'])
        p_date.append(main_article['publishedAt'])
        url.append(main_article['url']) contents =
        zip(news, desc, img, p_date, url)

    news_all = []
    desc_all = []
    img_all = []
    p_date_all = []
    url_all = []

    for j in range(len(a_articles)):
        main_all_articles = a_articles[j]

        news_all.append(main_all_articles['title'])
    desc_all.append(main_all_articles['description'])
    img_all.append(main_all_articles['urlToImage'])
    p_date_all.append(main_all_articles['publishedAt'])
    url_all.append(main_article['url']) all = zip(news_all,
    desc_all, img_all, p_date_all, url_all) return
    render_template('home.html', contents=contents, all=all)


@app.route('/weather', methods=['GET', 'POST'])
def weather():
    if request.method == 'POST':
        new_city = request.form.get('city')
        if new_city:
```

```
            new_city_obj = City(name=new_city)
            db.session.add(new_city_obj)
```

```
            db.session.commit()

    cities = City.query.all() url

    =

'http://api.openweathermap.org/data/2.5/weather?q={}&units=imperial&appid=2a78921b9bff
cab5e471564c6a553385' weather_data = []

    for city in cities: r =
        requests.get(url.format(city.name)).json()

        weather = {
            'city': city.name,
            'temperature': r['main']['temp'],
            'description': r['weather'][0]['description'],
            'icon': r['weather'][0]['icon'],
        } weather_data.append(weather) return

    render_template('weather.html', weather_data=weather_data)



@app.route('/logout')
def logout():
    session.clear() return
    redirect(url_for("index"))

if __name__ == '__main__':
    app.run(debug=True)
```

8.TESTING

8.1 Test Cases

Test case	Feature	component	Test scenario	Expected result	Actual result	Status	Coments	bug	Executed by
Login	functional	Login page	Verify can see login in option	Can visible	Yes visible	pass	Successful	-	VIGNESH
Sigin up	functional	registerpage	Verify user has the option to sign up	Can visible	Yes visible	pass	Successful	-	GOWRISHANKAR,THIYAGU
Password mismatch checking	functional	Login page	Verify user has entered correct password	verified	Returned to actual page	pass	Successful	-	DHAVASI
Fetch news	functional	Dash board	Verify user can get the nesh	News will be feed to the app	404 error	fail	Unsuccess ful		THIYAGU,GOWRISHANKAR
Types of news available in the fetch newspage	functional	News page	Type of news available	Weather,sport,economy,	Hover buttons will be shown	Yes	successful		

Result:

News tracker application using cloud is developed and executed at the level of completed progress .

10. ADVANTAGES & DISADVANTAGES

Advantages:-

This app constitutes a good user interface which is appealing and much interesting and easy to use.

Permit the users to share and display certain news on the social media.
These apps provide the latest videos and coverages of news on the device.
The user gets the details about the weather conditions with the applications

Disadvantages:-

one needs to have internet connection in order to access the news
Pop up advertisements and other advertisements which can appear anytime
Website could crash if lots of people try accessing them for a major news story

11. CONCLUSION

The present system involves all the clerical work, which is a cumbersome and complicated job. In today's fast life it is difficult for users to get news at their move. So, this system can be of great help as anyone can read the news on the internet whenever they get time. We have demonstrated a method for monitoring users' news reading behaviour In the future we will further explore the design of adaptive interfaces, in order to be in a position to demonstrate a complete adaptive mobile news framework providing automatic personalisation of news apps.

12.FUTURE SCOPE

Location feature with automation can be implemented which means as user move from one city to other local news will change as per it. Offline Reading can be improve will more efficient way on full articles. Data quality check needed.

13.APPENDIX

GitHub https://github.com/IBM-EPBL/IBM-Project-461371660739343

Project demo link

Our project runs on local host we can't share or use the site we attached source code through the link below

https://drive.google.com/file/d/1rIjrd8jTul79EV5smYVGrETfZ3FWl4Gx/view?usp=share_link