**CLOUD BASED NEWS TRACKER APPLICATION**

**PROJECT REPORT**

***Submitted by***

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***in partial fulfillment of the requirements for the award of the degree of***

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***in***

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**SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY COIMBATORE**

**(An Autonomous Institution)**



**ANNA UNIVERSITY: CHENNAI MAY 2022**

**SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY**

**(An Autonomous Institution)**

**(Approved by AICTE and Affiliated to Anna University, Chennai) ACCREDITED BY NAAC WITH “A” GRADE**

**BONAFIDE CERTIFICATE**

Certified that this project report titled **“Cloud based News tracker Application”** is the bonafide work of Santosh B (19EUCS122), Kiran S (20EUCS503), Maharanth H (19EUCS078), Mithilesh P C (19EUCS111) who carried out the project work under my supervision.

SIGNATURE SIGNATURE

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**This project report is submitted for the Autonomous Project Viva-Voce examination held on …………......**

**INTERNAL EXAMINER EXTERNAL EXAMINER**

**ACKNOWLEDGEMENT**

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## TABLE OF CONTENTS

## 1. INTRODUCTION

## 1.1. Proiect Overview

## 1.2 Purpose

## 2. LITERATURE SURVEY

## 2.1 Existing problem

## 2.2 References

## 2.3 Problem Statement Deninition

## 3.IDEATION & PROPOSED SOLUTION

## 3.1 Empathy Map Canvas

## 3.2 Ideation & Brainstorming

## 3.3 Proposed Solution

## 3.4 Problem Solution fit

## 4. REQUIREMENT ANALYSIS

## 4.1 Functional requirement

## 4.2 Non-Functional requirements

## 5. PROJECT DESIGN

## 5.1 Data flow diagrams

## 5.2 Solution & Technical Architecture

## 5.3 User Stories

## 6. PROJECT PLANNING & SCHEDULING

## 6.1 Sprint Planning & Estimation

## 6.2 Sprint Delivery Schedule

## 6.3 Reports from JIRA

## 7. CODING & SOLUTIONING

## 7.1 Feature 1

## 7.2 Feature 2

## 8. TESTING

## 8.1 'Test Cases

## 8.2 User Acceptance Testing

## 9. RESULTS

## 9.1 Performance Metrics

## 10. ADVANTAGES & DISADVANTAGES

## 11. CONCLUSION

## 12. FUTURE SCOPE

## 13. APPENDIX

## Source Code

## GitHub & Project Demo Link

## 1. INTRODUCTION

As world’s technology is rapidly growing we has 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.

## PROJECT OVERVIEW

To develop an news application which provides the quality news based on the user interest. Here thereare many sections and those section’s news are tracked from the news sources and the user could select their required section and they could read the news that are given as a snippet and that will be enough for a user togain an knowledge about that particular news.It is a cloud based application that it is mainly used for the users who hasn't have their enough time for their daily updation. It gives the quality news which will be provided by the best news sources and also the news will be displayed according to the users interests ‚so that they could read easily.

## PURPOSE

It is a cloud based application that it is mainly used for the users who hasn't have their enough time for their daily updation. It gives the quality news which will be provided by the best news sources and also the news will be displayed according to the users interests ‚so that they could read easily.

## LITERATURE SURVEY

* 1. **EXISTING PROBLEM**

THE GENDER GAP TRACKER: Using Language Processing to Gender Bias in media.This study provided an opportunity to determine the type of information that can be provided by analysis of Students' on-line interactions.Usage patterns of the WIER website and resources in terms of frequency of access and time spent at the site provided a rich picture of student learning behaviour.

## REFERENCES

* + 1. An Approach to News Event Detection and Tracking Based on Stream of Online News,

Authors : Yajie Qi, Li Zhou, Huayou Si, Jian Wan, Ting Jin. About the paper :

Once an event occurs, usually there are a large number of online news to be released. How to quickly and accurately detect the hot events from the huge amount of online news is the focus and hotspot.

* + 1. Exploring Mobile News Reading Interactions for News App Personalisation

Authors: Marios Constantinides, John Dowell, David Johnson, Sylvain Malacria

About the paper :

As news is increasingly accessed on smartphones and tablets, the need for personalising news app interactions is apparent. We report a series of three studies addressing key issues in the development of adaptive news app interfaces.

* + 1. Android News App

Authors: Brijesh Joshi, Nehal Patel. About the paper :

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.

* + 1. Research on Topic Detection and Tracking for Online News Text Authors: Guixian Xu, Yueting Meng, Zhan Chen, Xiaoyu Qiu, Changzhi Wang, HaishenYao.

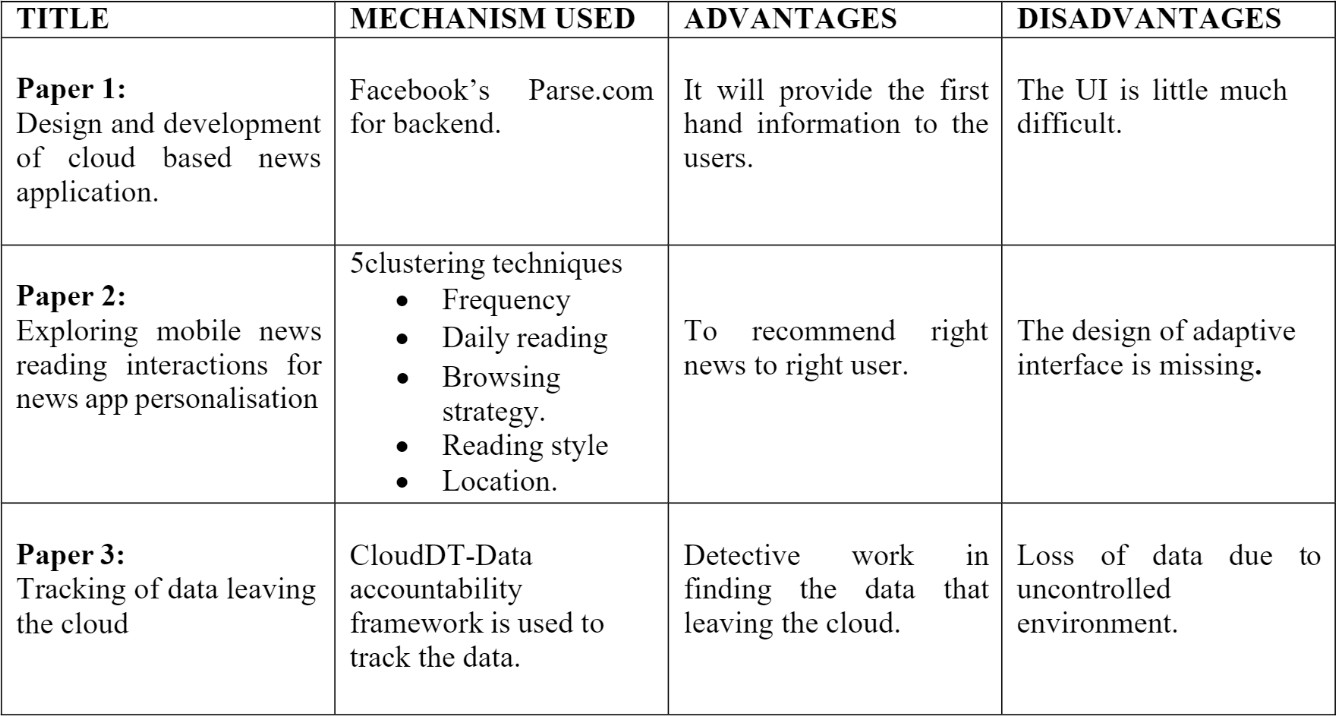
About the paper :

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.

## PROBLEM STATEMENT DEFINITION

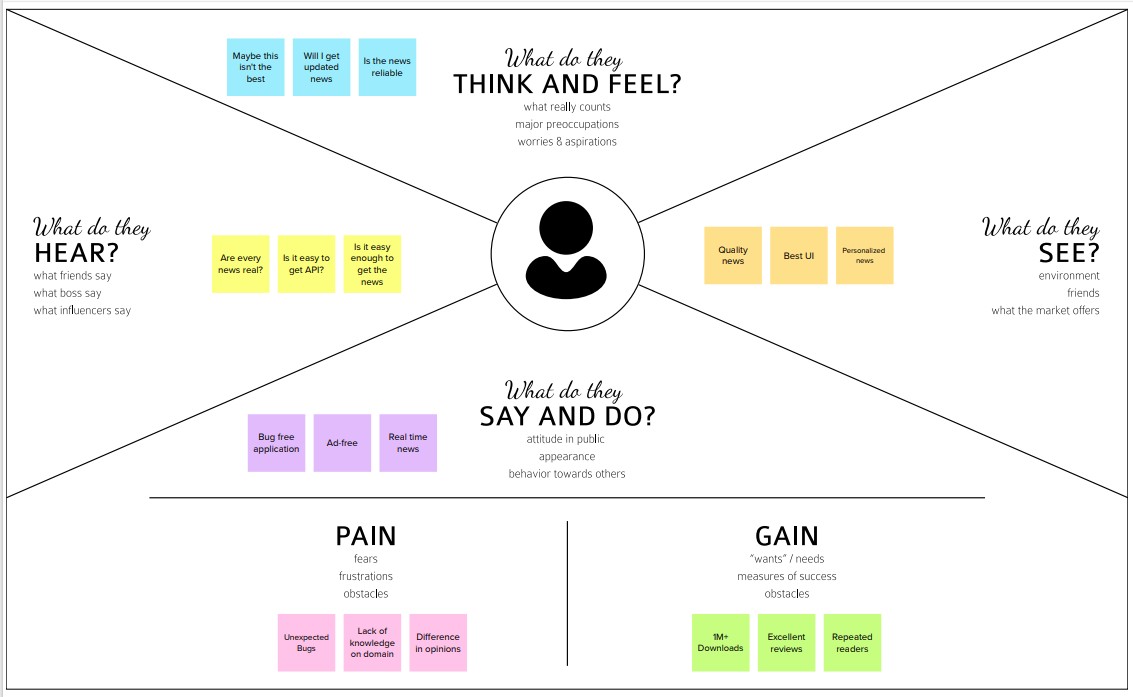
It is a cloud based application that it is mainly used for the users who hasn't have their enough time their daily updation. It gives the quality news which will be provided by the best news sources and also a news will be displayed according to the users interests ‚so that they could read easily.

To develop an news application which provides the quality news based on the user interest. Here there are many sections and those section's news are tracked from the news sources and the user could select their required section and they could read the news that are given as a snippet and that will be enough for a user to gain an knowledge about that particular news.

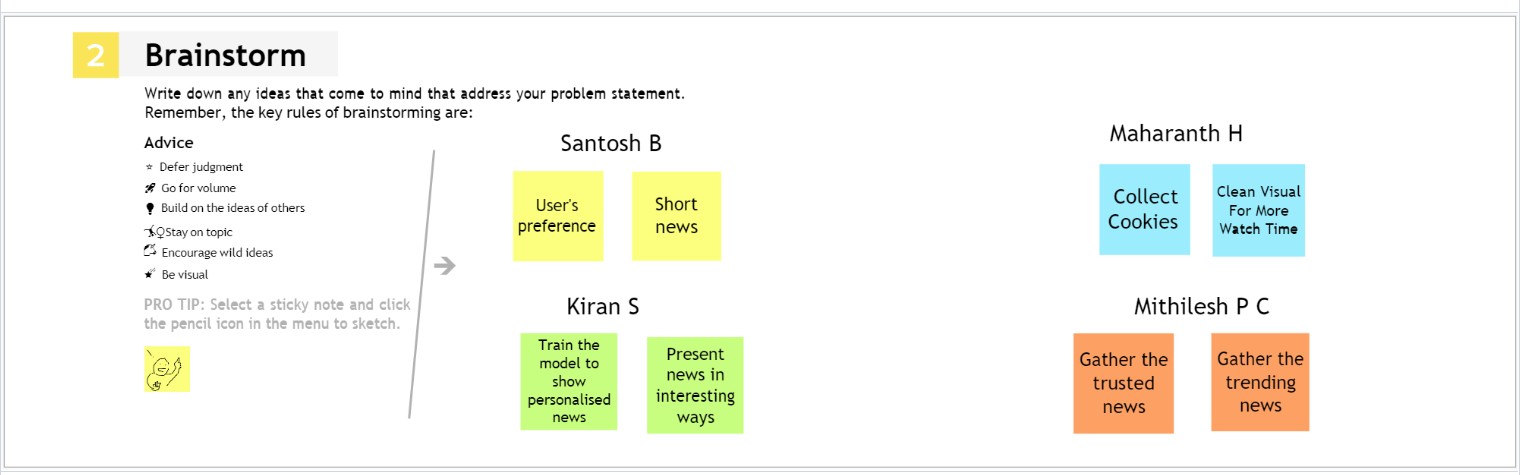


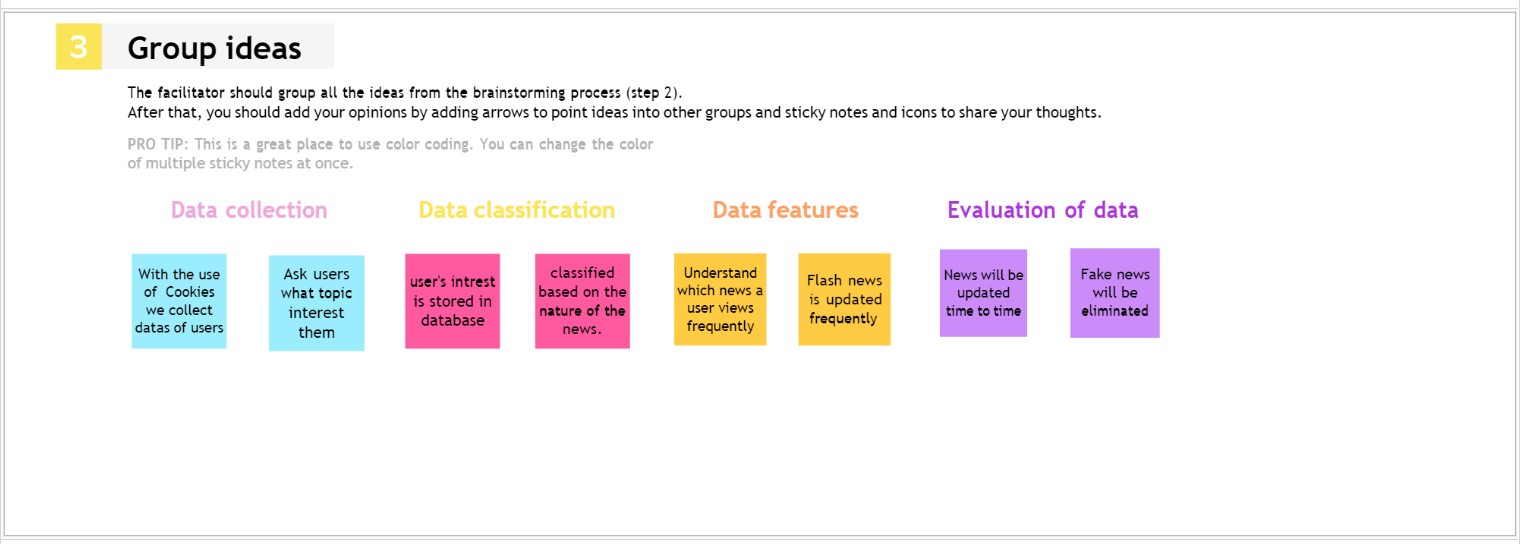
## IDEATION AND PROPOSED SYSTEM

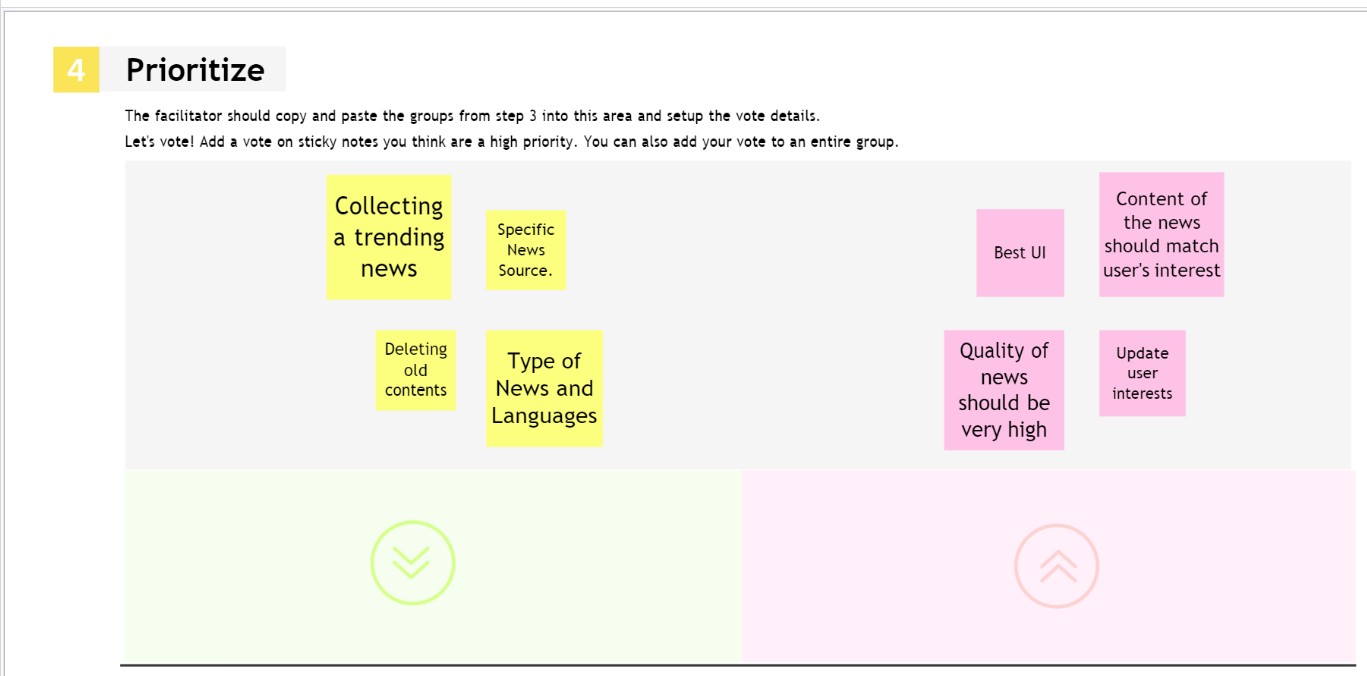
* 1. **EMPATHY MAP CANVAS**



* 1. **IDEATION AND BRAINSTORMING**







# PROPOSED SOLUTION

PROBLEM STATEMENT (PROBLEM TO BE SOLVED)

It is a cloud based application that it is mainly used for the users who hasn't have their enough time their daily updation. It gives the quality news which will be provided by the best news sources and also a news will be displayed according to the users interests ‚so that they could read easily.

IDEA / SOLUTION DESCRIPTION

We are using html - bootstrap ,python - flask. This is for the continuous display ofnews. As Python has lot of libraries ,it is easier and faster. Provides an analyzed insight into day to day news. It gives unbiased news in easy and orderly manner. News today is ridiculed with adverts and sponsorships which fail to provide unparalleled news. Our solution prevents adverts therefore providing users unbiased news. Our solution aims to provide new news upto date in real-time with personal suggestions.

NOVELTY / UNIQUENESS

Usually people use javascript ,php as a backend for web development. But we are using flask for that purpose. It predicts output with high accuracy.App-based news tracker dashboard systems which can analyze real-time images of an incident and analyze it for news content which can be very handy and usefull.

SOCIAL IMPACT / CUSTOMER SATISFACTION

Less time and more knowledge consumption.

BUSINESS MODEL (REVENUE MODEL)

A revenue model means understanding how a startup can make money. Our major revenue sources consist of sales, government funds, and public donations.

SCALABILITY OF THE SOLUTION

Design, news and flash news are flexible. IBM Cloud, for instance, is one of the cloud-based AI scalability options. Run and manage AI models, as well as optimise decisions at scale across any cloud, with the aid of IBM Cloud Build. The benefit of using the cloud to scale solutions is that we can install our AI programme there. the specific cloud environment that best supports our business needs. We can take advantage of built-in security capabilities and AI model monitoring. we can drive better business outcomes by optimizing our decisions and also make our solution scalable using cloud.

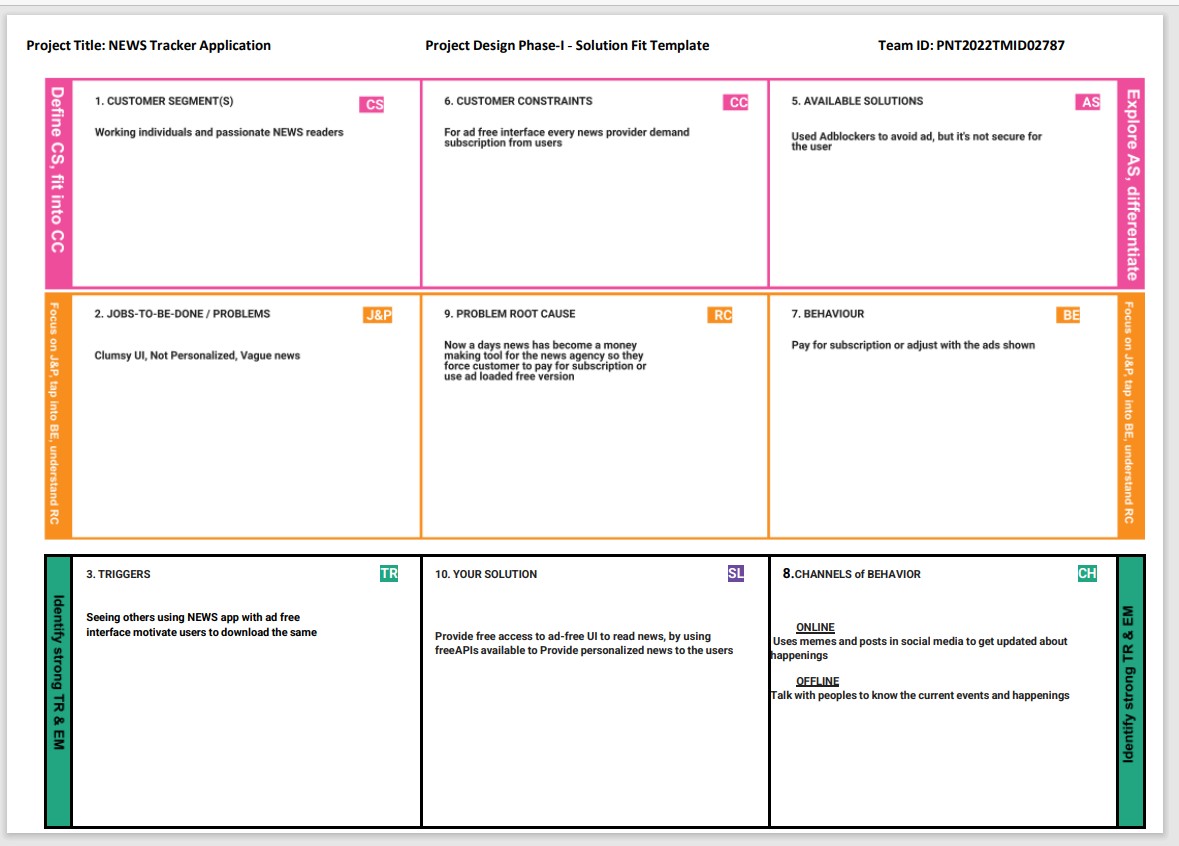
## PROBLEM SOLUTION FIT

Cloud Computing is one of the fast growing and it offers flexible resources, and economies of scale. In this article we are going make an application which tracks the news. It is an News Tracker Application where it gives crisp news from the reputed news sources and it’s just gives the simple sentence which saves the readers time and also it is high in knowledge.

## PURPOSE:

Solve complex problems in a way that fits the state of your customers.

Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior. Sharpen your communication and marketing strategy with the right triggers and messaging. Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems. Understand the existing situation in order to improve it for your target group.



## REQUIREMENT ANALYSIS

* 1. **FUNCTIONAL REQUIREMENTS**

User Registration

* + - Registration through Form
    - Registration through Gmail User Confirmation
* Confirmation via Email
* Confirmation via OTP

Searching

Real-time News

Location Based

* Search the news based on the user interest.
* Trending news will be shown.
* User can choose the genre.
* User could see the real news from trusted sources.
* Auto update news because it fetch news from NEWS-API.
* User could see their country news.
* They could also see other country news.

## NON-FUNCTIONAL REQUIREMENTS

PERFORMANCE

Performance is measured in terms of the output provided by the application. Requirement specification plays an important part in the analysis of a system. Only when the requirement specifications are properly given, it is possible to design an application, which will fit into the required environment. The load for the user interface screens shall take no longer than 2 seconds. The login information shall be verified within 5 seconds. Queries shall return results within 5 seconds.

Usability

* The news is updated almost every second, it does not affect the user who reads his/her favourite news.

Security

* Authentication and Password Management. Reliability
* Avoid fake news.
* Instant news.
* Location based news. Performance
* Smooth UI makes the user to stay in app.
* Showing the current trending news first. Availability
* Minimum idle time is 24/7.
* Recent news will based on user’s previous news visit. Scalability
* Get more user’s attention by sharing the app in social media

SAFETY AND SECURITY REQUIREMENTS

* User Identification:

The system requires the user to identify himself/herself User

* Login ID:

Any user who uses the system shall have a Login.

* Modification:

Any modification (insert, delete (or) update) for the Database shall be synchronized and done only by the admin in the ward.

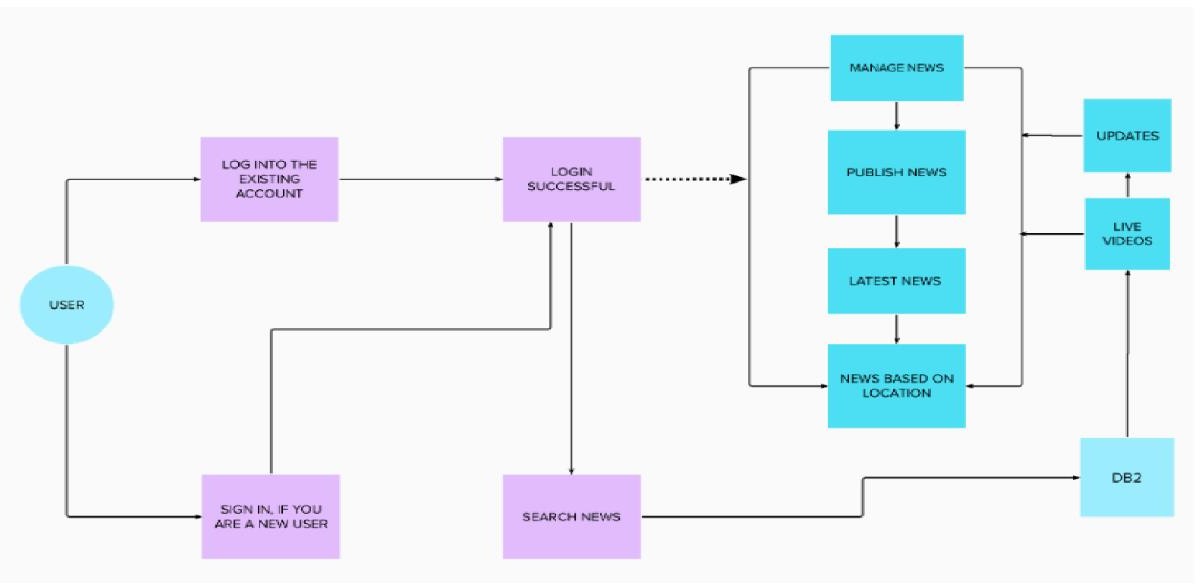
* Admin Rights:

Admin shall be able to view and modify the information.

## PROJECT DESIGN

* 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.



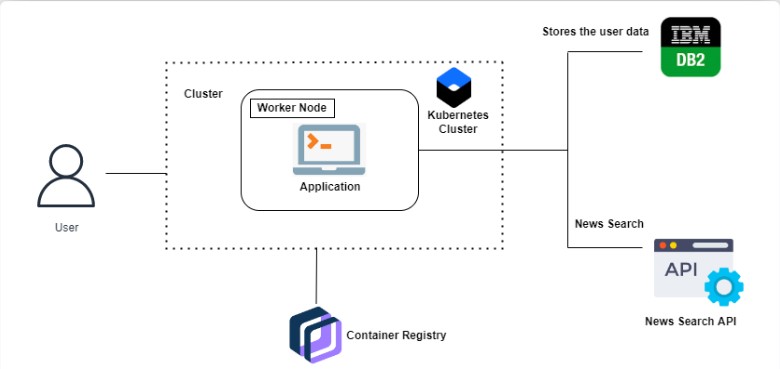
## SOLUTION AND TECHNICAL ARCHITECTURE

**PROJECT DESCRIPTION:**

It is a cloud based application that it is mainly used for the users who hasn't have their enough time their daily updation. It gives the quality news which will be provided by the best news sources and also a news will be displayed according to the users interests ‚so that they could read easily.

To develop an news application which provides the quality news based on the user interest. Here there are many sections and those section's news are tracked from the news sources and the user could select their required section and they could read the news that are given as a snippet and that will be enough for a user to gain an knowledge about that particular news.

## TECHNICAL ARCHITECTURE



**SOLUTION**

* + - The user interacts with the application.
    - Registers by giving the details.
    - Integrate the application with news APIs and store the data in the database.
    - The database will have all the details and the user can search the news by using a search bar.

## PROCEDURE

Registration :

As a user, I can register for the application by entering my email, password, and confirming my password.

Login :

As a user, I can log into the application by entering email & password Dashboard :

The news portal fetches for the most recent news and shows it as “Breaking News”.

Search Bar :

User search data based on their personal interests.

Administrator Server :

Provides the exact news from the database.

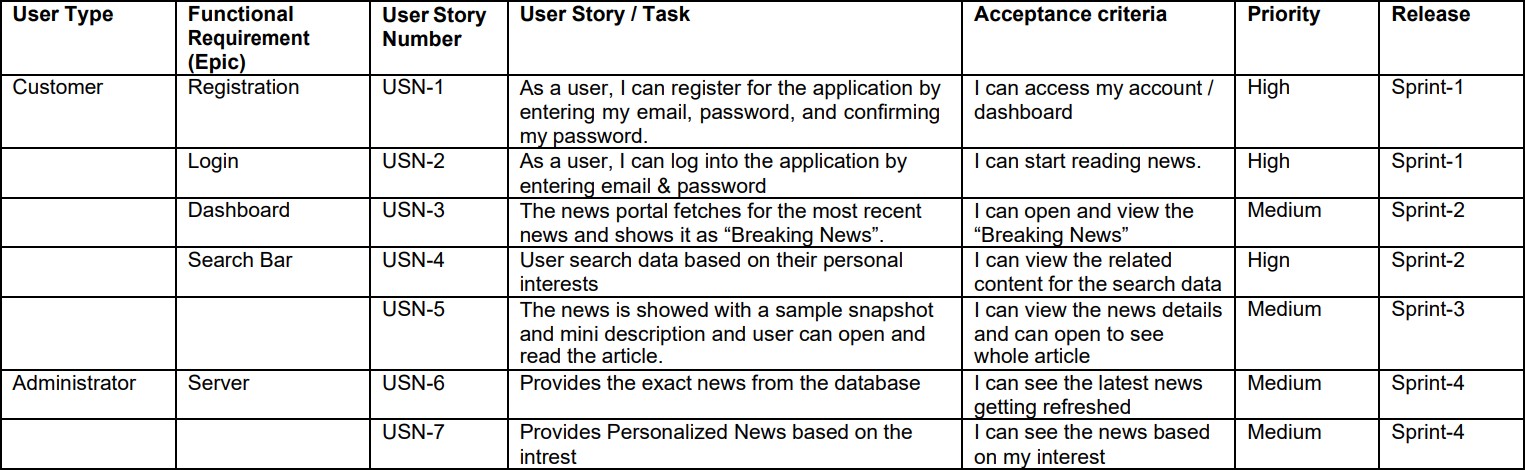
## APPROACH:

KUBERNETES CLUSTERS - Kubernetes clusters allow containers to run across multiple machines and cloud based application.

IBM DB2- Used for Backup & recovery. Comprehensive data resilience for physical and virtual servers.Cloud hosting. Dedicated, virtual private, and bare metal server options

CONTAINER REGISTRY - Container Registry is a single place for your team to manage Docker images, perform vulnerability analysis, and decide who can access what with fine-grained access control

## USER STORIES



1. **PROJECT PLANNING & SCHEDULING**

## SPRINT PLANNING & ESTIMATION

**.PRODUCT BACKLOG, SPRINT SCHEDULE, AND ESTIMATION**

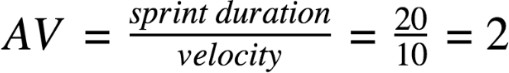
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional Requiremen ts(Epic)** | **User Story Number** | **User Story/Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint 1 | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password | 15 | High | Santosh B, Kiran S, Mithilesh P C, Maharanth H |
| Sprint 2 | Login | USN-2 | As a user, I can log into the application by entering email & password | 10 | High | Santosh B, Kiran S, Mithilesh P C, Maharanth H |
| Sprint 3 | Database | USN-3 | Connection to the database for maintaining the user details. | 10 | High | Santosh B, Kiran S, Mithilesh P C, Maharanth H |
| Sprint 4 | Notifications | USN-4 | As a user, I will receive notifications to my email so that I’ll be updated on the news | 10 | Medium | Santosh B, Kiran S, Mithilesh P C, Maharanth H |

## PROJECT TRACKER, VELOCITY & BURNDOWN CHART

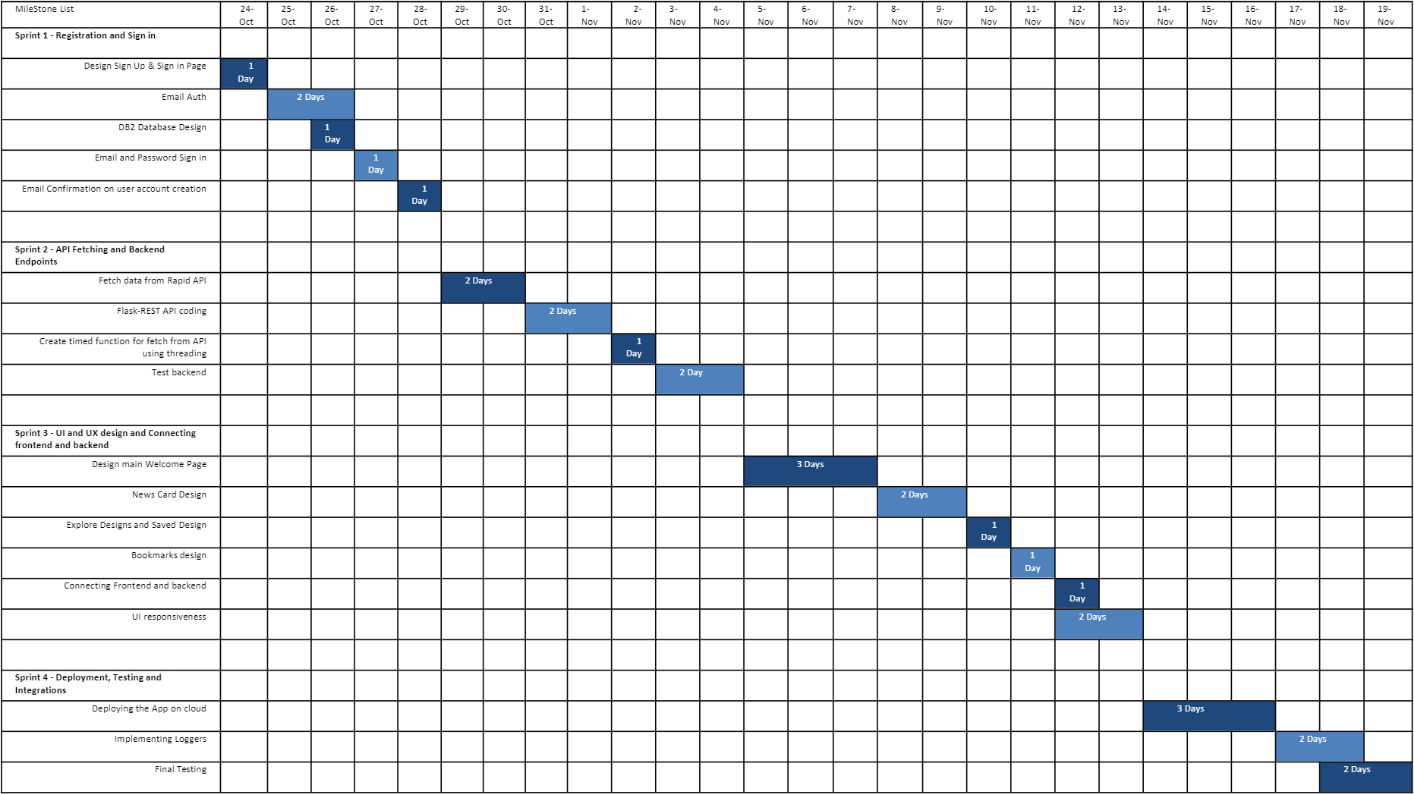
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Total Story points** | **Duration** | **Sprint Start Date** | **Sprint End Date(Planne d)** | **Story Points Completed (as on planned end date)** | **Sprint Release Date(actual)** |
| Sprint-1 | 20 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 20 | 29 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 20 | 05 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 12 Nov 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 19 Nov 2022 |

**VELOCITY:**

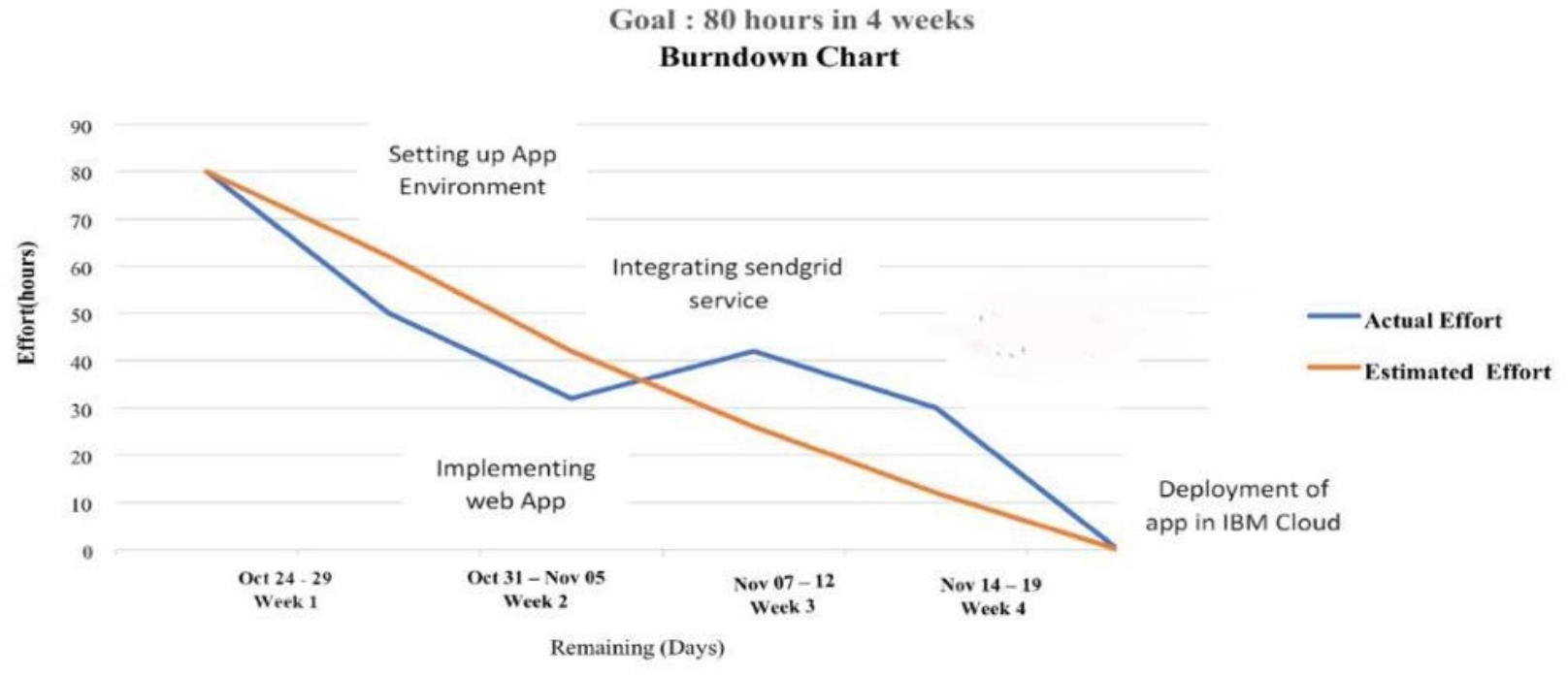
Imagine we have a 10-day sprint duration, and the velocity of the team 20(points per sprint).Let’s calculate the team’s average velocity (AV) per iteration unit.



## SPRINT DELIVERY SCHEDULE



* 1. **REPORT FROM JIRA**



## CODING AND SOLUTIONING

* 1. **FEATURE 1**

Base.html

|  |
| --- |
| <!DOCT YPE  html> |
| <html lang="en "> |
| <head> |
| <meta charset="UTF-8"> |
| <meta http-equiv="X-UA-Compatible" content="IE=edge"> |
| <meta name="viewport" content="width=device-width, initial-  scale=1.0"> |
| <script src=["http](https://cdn.jsdelivr.net/npm/%40popperjs/core%402.10.2/dist/u)s[://cdn.jsdelivr.net/npm/@popperjs/core@2.10.2/dist/u](https://cdn.jsdelivr.net/npm/%40popperjs/core%402.10.2/dist/u)  md/popper.min.js" |
| integrity="sha384-  7+zCNj/IqJ95wo16oMtfsKbZ9ccEh31eOz1HGyDuCQ6wgnyJ NSYdrPa03rtR1zdB" |
| crossorigin="anonymous"></script> |
| <link rel="stylesheet"  href=["ht](https://cdn.jsdelivr.net/npm/bootstrap%404.5.3/dist/css/boot)t[ps://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/css/boot](https://cdn.jsdelivr.net/npm/bootstrap%404.5.3/dist/css/boot) strap.min.css" |
| integrity="sha384- TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlf IDPvg6uqKI2xXr2" crossorigin="anonymous"> |
| <script src=["http](https://cdn.jsdelivr.net/npm/bootstrap%405.1.3/dist/js/bootstr)s[://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstr](https://cdn.jsdelivr.net/npm/bootstrap%405.1.3/dist/js/bootstr) ap.min.js" |
| integrity="sha384- QJHtvGhmr9XOIpI6YVutG+2QOK9T+ZnN4kzFN1RtK3zEF  EIsxhlmWl5/YESvpZ13" |
| crossorigin="anonymous"></script> |
| <link rel="stylesheet" href="../static/app.css"> |
| <!-- Added absolute path to fix rendering problems when in nested route. check to ensure works on deployment --> |
| <script  src="https://unpkg.com/axios/dist/axios.min.js"></script> |

|  |
| --- |
| <title>NewsTracker</title> |
| <link href="https://fonts.googleapis.com/css?family=Abel"  rel="stylesheet"> |
| </head> |
| <body> |
| <nav class="navbar border-bottom border-secondary fixed-top  navbar-expand navbar-dark bg-dark"> |
| <a href="/" class="navbar-brand">NewsTracker</a> |
| <div class="collapse navbar-collapse" id="navbarNav"> |
| <div class="navbar-nav"> |
| {% if g.user %} |
| <a class="nav-item nav-link " href="/headlines">Headlines <span class="sr-  only">(current)</span></a> |
| <a class="nav-item nav-link" href="/user/saved">My  Stories</a> |
| <a class="nav-item nav-link" href="/search">Detailed  Search</a> |
| <li class="nav-item dropdown"> |
| <a class="nav-link dropdown-toggle" href="#"  id="navbarDarkDropdownMenuLink" role="button" |
| data-bs-toggle="dropdown" aria-expanded="false"> |
| My Queries |
| </a> |
| <ul class="dropdown-menu dropdown-menu-dark" aria-  labelledby="navbarDarkDropdownMenuLink" id="dropdown"> |
| {% if g.user.queries%} |
| {%for query in g.user.queries%} |
| <li class="dropdown-item" style=" |
| padding-right: 10px"><a class="query-link"  href="/search/{{query.id}}">{{query.name}} |
| </a> |
| <span data-query="{{query.id}}"  class="close">&times;</span> |
| <!-- <button type="button" class="btn btn-outline-  success btn-sm">Make Default</button> --> |
| </li> |
| {%endfor%} |
| {% else %} |
| <span class="dropdown-item">You currently have no  saved queries.</span> |

|  |
| --- |
| {% endif %} |
| </ul> |
| </li> |
| <a class="nav-item nav-link" href="/logout">Logout</a> |
| {% else %} |
| <a class="nav-item nav-link"  href="/headlines">Headlines</a> |
| <a class="nav-item nav-link" href="/login">Login</a> |
| <a class="nav-item nav-link"  href="/register">Register</a> |
| {% endif %} |
| </div> |
| </div> |
| <!-- <button class="navbar-toggler" type="button" data-  toggle="collapse" data-target="#navbarNav"> |
| <span class="navbar-toggler-icon"></span> |
| </button> --> |
| <div> |
| <form action="/search/simple" method="GET"  class="form-inline" id="search"> |
| <input name="search" class="form-control mr-sm-2"  type="search" placeholder="Search" aria-label="Search"> |
| <button class="btn btn-outline-success badge-pill my-2  my-sm-0 badge-pill" type="submit">Search</button> |
| </form> |
| </div> |
| </nav> |
| <div id="indentation"> |
| </div> |
| {%with messages =  get\_flashed\_messages(with\_categories=true) %} |
| {% if messages %} |
| <section class="messages"> |
| {% for category, msg in  get\_flashed\_messages(with\_categories=true)%} |
| <span class="{{category}}">{{msg}}</span> |
| {% endfor %} |
| </section> |
| {% endif %} |
| {% endwith %} |
| {% block content %} |
| <!-- content goes here --> |

|  |
| --- |
| {% endblock %} |
| <script src="/static/newstracker.js"></script> |
| <script src=["http](https://cdn.jsdelivr.net/npm/popper.js%401.16.0/dist/umd/po)s[://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/po](https://cdn.jsdelivr.net/npm/popper.js%401.16.0/dist/umd/po) pper.min.js" |
| integrity="sha384-  Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3U ksdQRVvoxMfooAo" |
| crossorigin="anonymous"></script> |
| <script src="https://code.jquery.com/jquery-3.4.1.slim.min.js" |
| integrity="sha384-  J6qa4849blE2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFA V0wwj1yYfoRSJoZ+n" crossorigin="anonymous"> |
| </script> |
| <script  src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/boots trap.min.js" |
| integrity="sha384-  wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uo d8GCExl3Og8ifwB6" |
| crossorigin="anonymous"></script> |
| </body> |
| </html> |
| Login.ht ml  {%  extends 'base.htm l' %} |
| {% block content %} |
| <div class="container"> |
| <h1 class="form display-3 text-center">Login</h1> |
| <div class="text-center text-light"> |
| <p class="display-5 alert alert-success" id="login-q">Don't  have an account? <a href="/register" |
| class="alert-link">Register here</a></p> |
| <div class="row justify-content-center"> |
| <div class="col-md-8"> |
| <form method="POST"> |
| {{ form.hidden\_tag() }} |

|  |
| --- |
| {% for field in form if field.widget.input\_type !=  'hidden' %} |
| <p> |
| <div class="form-group"> |
| {{field.label}} |
| {{field(class\_="form-control")}} |
| {%for err in field.errors%} |
| <small class="form-text text-danger"> |
| {{err}} |
| </small> |
| {% endfor %} |
| </div> |
| </p> |
| {% endfor %} |
| <button class="submit-b btn btn-success btn-large"  type="Submit">Login</button> |
| </form> |
| </div> |
| </div> |
| </div> |
| </div> |
| {% endblock %} |

## FEATURE 2

App.py

|  |
| --- |
| from dotenv import  load\_dotenv |
| load\_dotenv() |
| from flask import Flask |
| app = Flask( name ) |
| if app.config["ENV"] == "production": |
| app.config.from\_object('config.ProductionConfig') |
| elif app.config["ENV"] == "development": |
| app.config.from\_object('config.DevelopmentConfig') |
| else: |
| app.config.from\_object('config.TestingConfig') |

|  |
| --- |
| #server-side session |
| CURR\_USER\_KEY = "curr\_user" |
| from flask\_session import Session |
| server\_session = Session(app) |
| #db set-up |
| from models import connect\_db, db |
| connect\_db(app) |
| db.create\_all() |
| #view imports |
| from views import sa\_views, site\_views, api |

Config.py

|  |
| --- |
| import  os |
| import redis |
| class Config(object): |
| DEBUG = False |
| TESTING = False |
| SQLALCHEMY\_TRACK\_MODIFICATIONS = False |
| SQLALCHEMY\_ECHO = True |
| API\_KEY = os.getenv("API\_KEY") |
| SECRET\_KEY = os.getenv("SECRET\_KEY") |
| SESSION\_TYPE = 'redis' |
| SESSION\_USE\_SIGNER = True |
| SESSION\_PERMANENT = False |
| class DevelopmentConfig(Config): |
| DEBUG = True |
| SQLALCHEMY\_DATABASE\_URI = 'postgresql:///news-  tracker7' |
| SESSION\_REDIS = redis.from\_url('redis://localhost:6379') |
| class ProductionConfig(Config): |
| SQLALCHEMY\_DATABASE\_URI =  os.getenv("DATABASE\_URL") |
| SESSION\_REDIS = redis.from\_url(os.getenv('REDIS\_URL',  'redis://localhost:6379')) #2nd argument for local db is necessary for |

|  |
| --- |
| some reason because the production version keeps getting called in  development. |
| class TestingConfig(Config): |
| TESTING = True |
| SQLALCHEMY\_DATABASE\_URI =  'postgresql:///newstracker-test' |
| SQLALCHEMY\_ECHO = False |
| DEBUG\_TB\_HOSTS= ['dont-show-debug-toolbar'] |
| WTF\_CSRF\_ENABLED = False |

Forms.py

|  |
| --- |
| from flask\_wtf import  FlaskForm |
| from wtforms import StringField, PasswordField, IntegerField,  SelectField, DateField, BooleanField, DateTimeField |
| from wtforms.validators import InputRequired, Optional,  NumberRange |
| import datetime as dt |
| class RegisterForm(FlaskForm): |
| '''form to add a new user. Username, password, and email  required''' |
| username = StringField("Username",  validators=[InputRequired()]) |
| password = PasswordField("Password",  validators=[InputRequired()]) |
| email = StringField("Email") |
| first\_name = StringField("First Name") |
| last\_name = StringField("Last Name") |
| class LoginForm(FlaskForm): |
| '''form to login user with username and password''' |
| username = StringField("Username", validators=[ |
| InputRequired(message="Please enter a  username")]) |
| password = PasswordField("Password", validators=[ |

|  |
| --- |
| InputRequired(message="Please enter a  password")]) |
| class SearchForm(FlaskForm): |
| keyword = StringField("Enter a search term:", validators=[Optional()]) |
| source = SelectField("Choose source:", choices=[ |
| ('', 'All'), ('abc-news', 'ABC News'), ('al-jazeera-english', |
| 'Al Jazeera'), ('associated-press',  'Associated Press'), ('axios', 'Axios'), |
| ('bbc-news', 'BBC News'), ('bloomberg', 'Bloomberg'),  ('cbc-news', |
| 'CBC News'), ('cbs-  news', 'CBS News'), ('cnn', 'CNN'), ('fox-news', 'Fox News'), |
| ('google-news', 'Google News'), ('independent',  'Independent'), ('msnbc', |
| 'MSNBC'), ('nbc-  news', 'NBC News'), ('politico', 'Politico'), |
| ('reuters', 'Reuters'), ('the-hill', 'The Hill'), ('the-huffington-  post', |
| 'The Huffington Post'),  ('the-wall-street-journal', 'The Wall Street Journal'), |
| ('the-washington-post', "The Washington Post"), ('time',  'Time'), ('usa-today', 'USA Today'), ('vice-news', 'Vice News')], |
| validators=[Optional()]) |
| quantity = IntegerField("Enter # of many articles you want returned (max 15):", |
| default=10, validators=[ |
| NumberRange(min=1, max=15, # this is represented by the "pageSize" parameter in the API where default and max are  both set to 100 |
| message="Please enter a number between 1 and 10")]) |
| date\_from = DateField("Select a starting date:", validators=[Optional()]) |
| date\_to = DateField("Up until which date?", # API default if  will be newest to oldest with no limit |
| default=dt.datetime.today, validators=[Optional()]) |

|  |
| --- |
| language = SelectField("Choose which language you want to  see results from:", choices=[ # API default is all languages |
| ('en', 'English'), ('es', 'Spanish'), ('fr', 'French'), |
| ('ar', 'Arabic'), ('he', 'Hebrew'), ('he', 'Hebrew'), ('it',  'Italian'), |
| ('nl', 'Dutch'), ('no', 'Norwegian'), ('pt', 'Portuguese'), ('ru',  'Russian'), |
| ('zh', 'Chinese'), ('se', 'Swedish')], |
| validators=[Optional()]) # can't find 'ud' language code as specified by api |
| sort\_by = SelectField("Search by:", choices=[('relevancy', 'Relevant'), ('popularity', 'Popular'), ('publishedAt', 'Recent'), # API default: publishedAt |
| ('polarity', 'Polarity (results  ordered from positive to negative)'), |
| ('subjectivity', 'Objectivity (results ordered from objective to subjective)')], validators=[Optional()]) |
| default = BooleanField( |
| "Make this your default search settings for your home page feed?") |
| saved\_query = BooleanField( |
| "Would you like to add this to your saved search queries?") |
| name = StringField("Give your saved search query a name (if applicable)", validators=[Optional()]) |

Newstracker.js

const body = document.querySelector("body");

const homeAdd = function (arg) { arg.classList.add("home-body");

}

//axios requests that reach our server to run SA on said story and show result inside button

const saButtons = document.querySelectorAll(".sa-button"); for (let button of saButtons) {

button.addEventListener("click", async function (evt) { evt.preventDefault();

const text = button.firstChild; const input = text.nextSibling; const value = input.value;

const storyID = button.getAttribute('data-story') if (value === "Get Polarity") {

try {

const req = await axios.post(`/story/${storyID}/polarity`); const resp = req.data.response;

input.value = resp;

} catch (error) { console.error(error.response.data)

}

}

else if (value === "Get Subjectivity") {

const req = await axios.post(`/story/${storyID}/subjectivity`); const resp = req.data.response;

input.value = resp;

}

})

}

const deleteQueryButtons = document.querySelectorAll(".close") for (let button of deleteQueryButtons) {

button.addEventListener("click", async function (evt) { console.log("CLICKEDDDD")

const queryID = button.getAttribute('data-query') console.log(queryID)

const req = await axios.post(`/user/${queryID}/delete`); const resp = req.data.response;

button.value = resp;

})

}

//Replace broken images with default image

const default\_avatar = 'https://secure.gravatar.com/avatar?d=wavatar';

window.addEventListener("load", event => {

let images = document.querySelectorAll('img'); for (let image of images) {

let isLoaded = image.complete && image.naturalHeight !== 0; if (!isLoaded) {

image.src = default\_avatar;

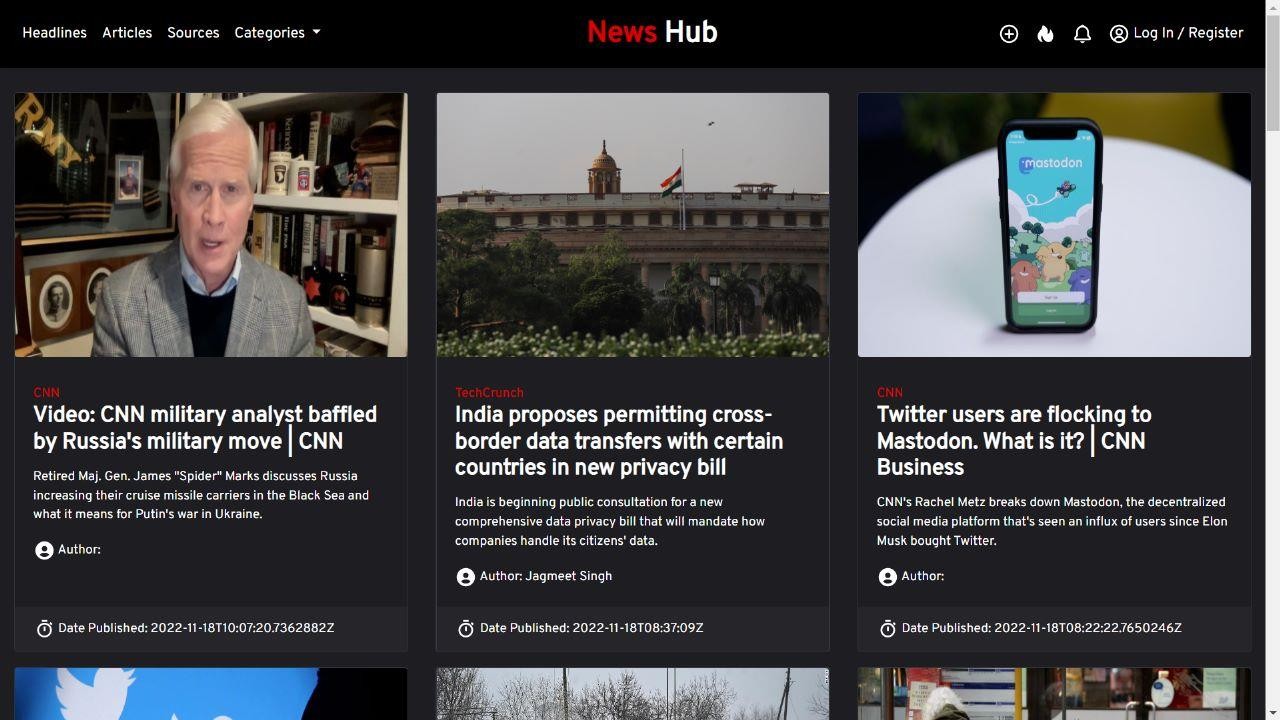
}

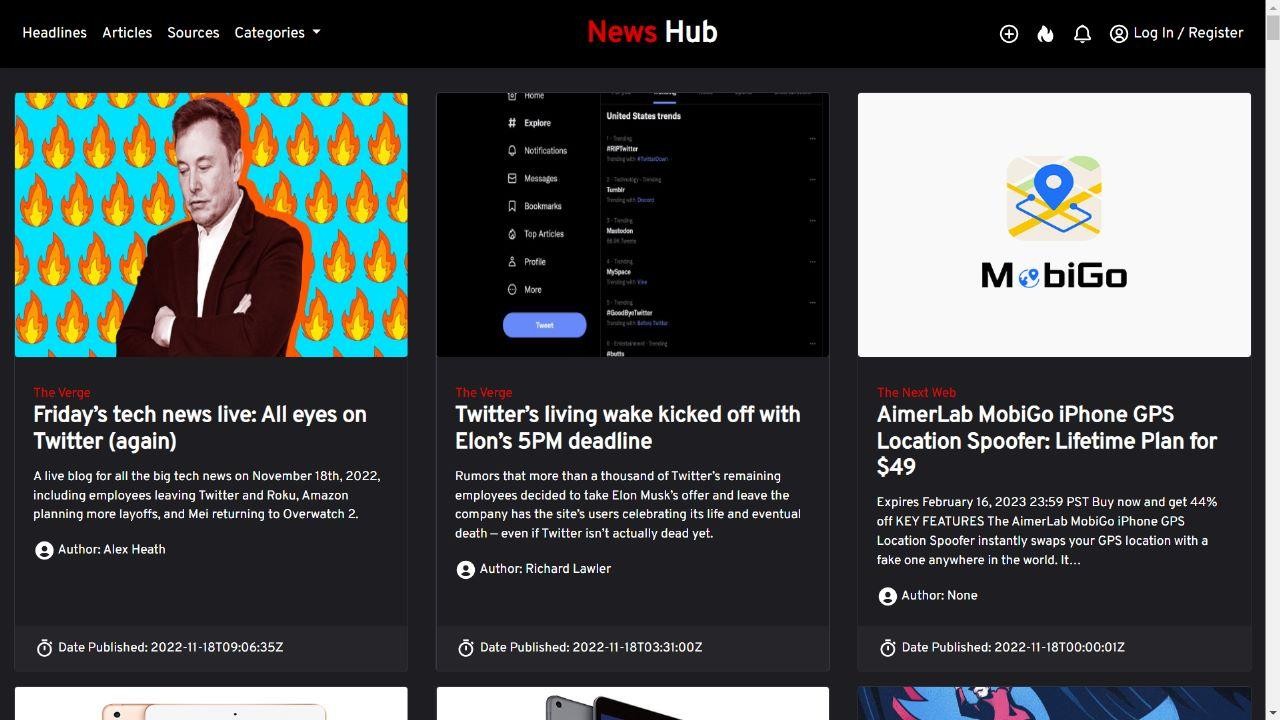
}

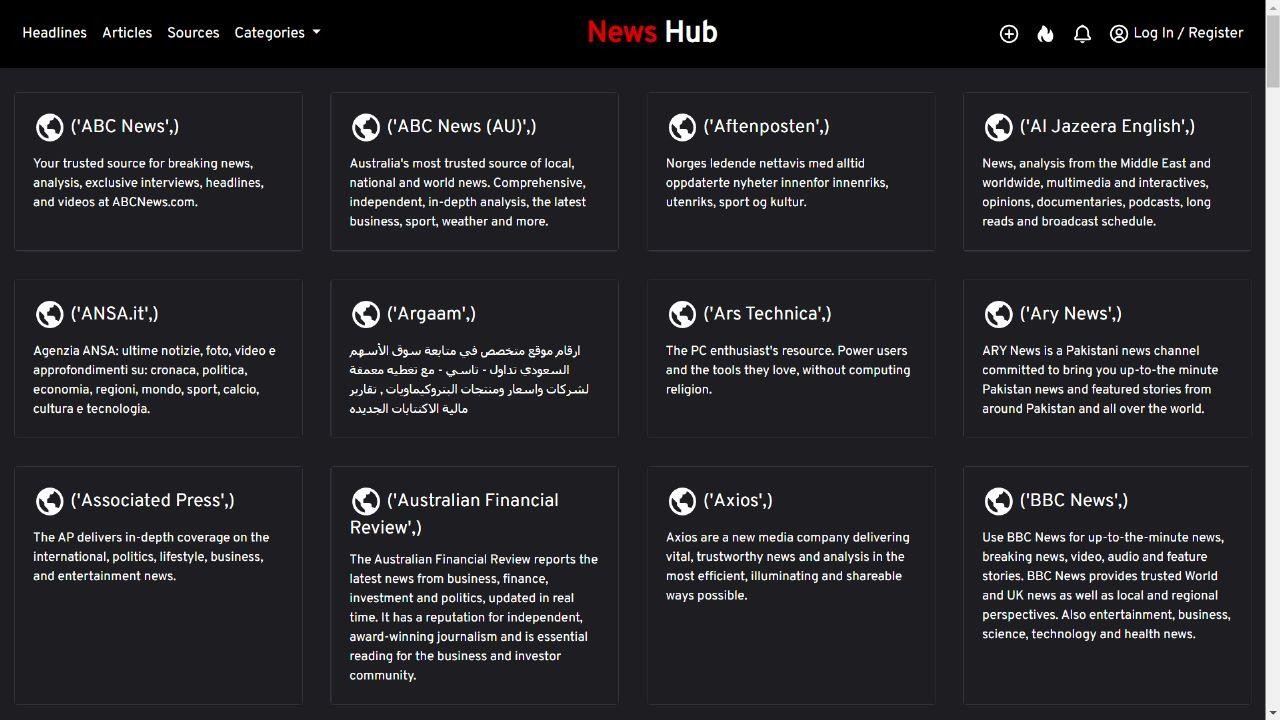
});

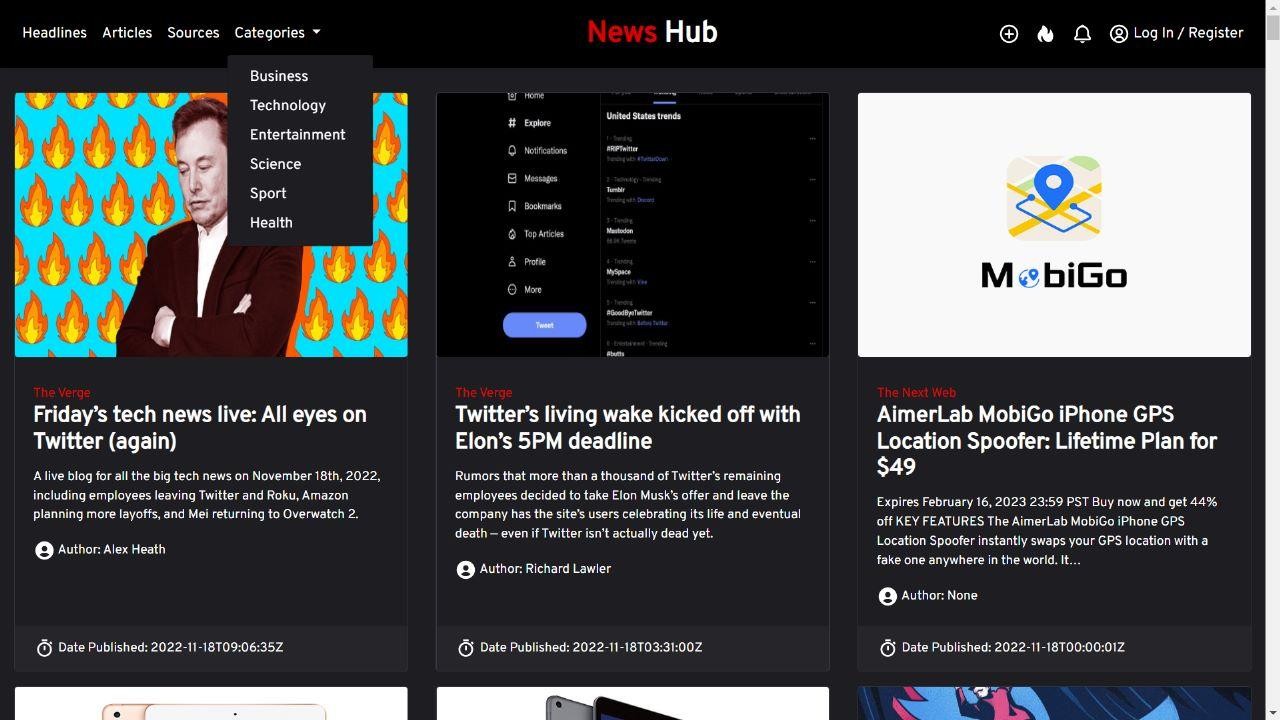
## TESTING

* 1. **TEST CASES**

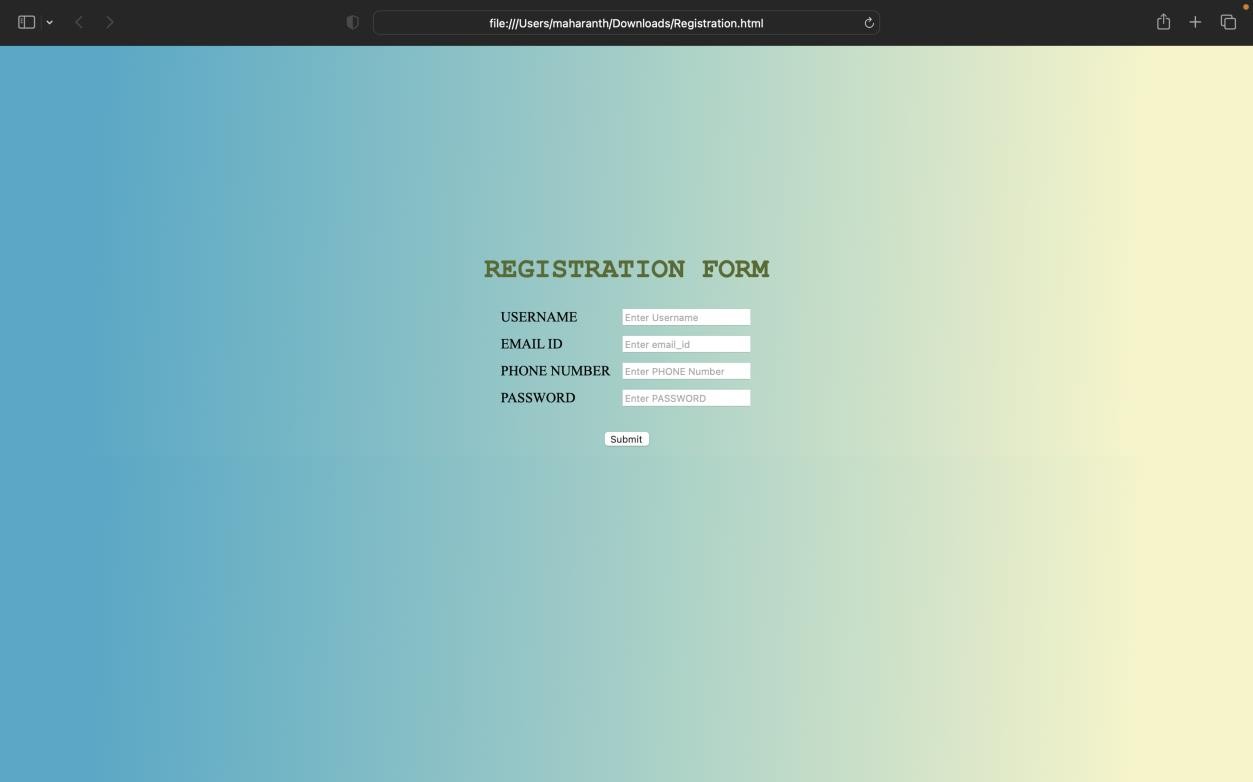


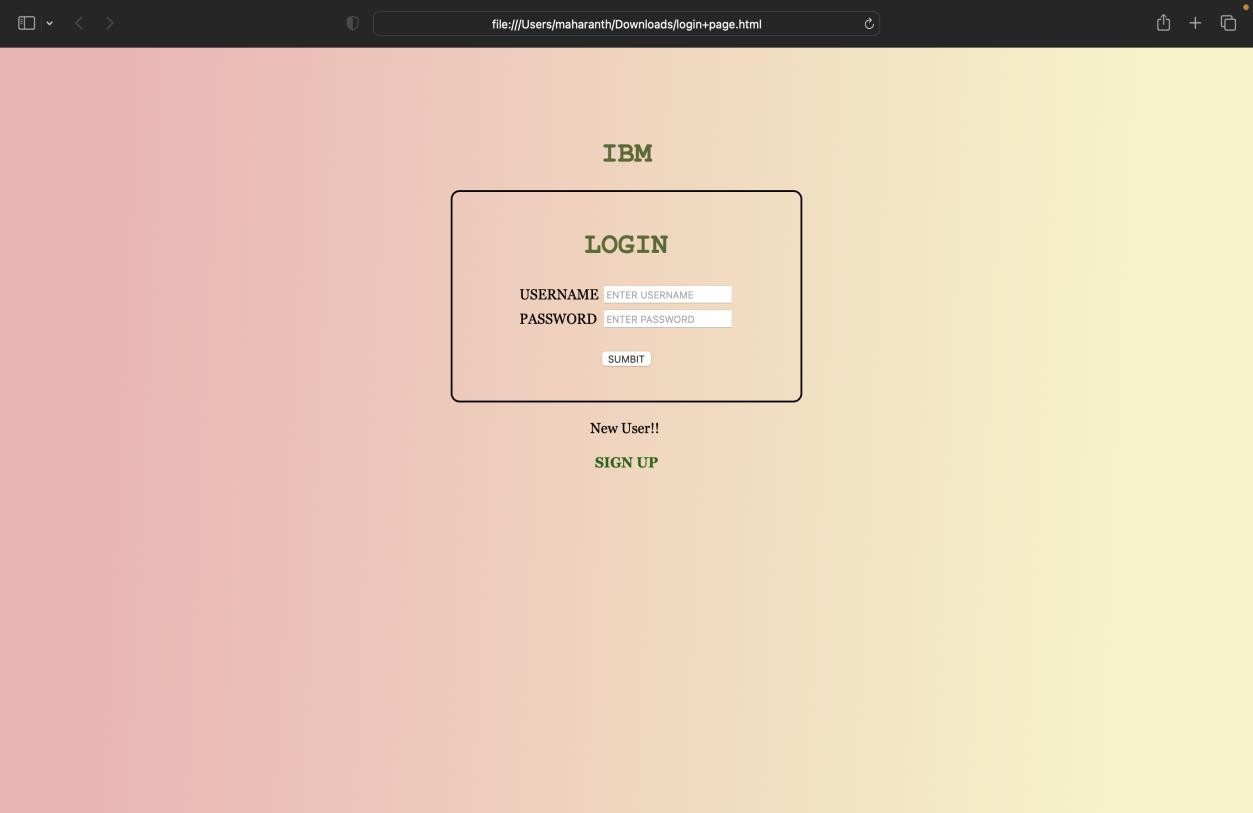


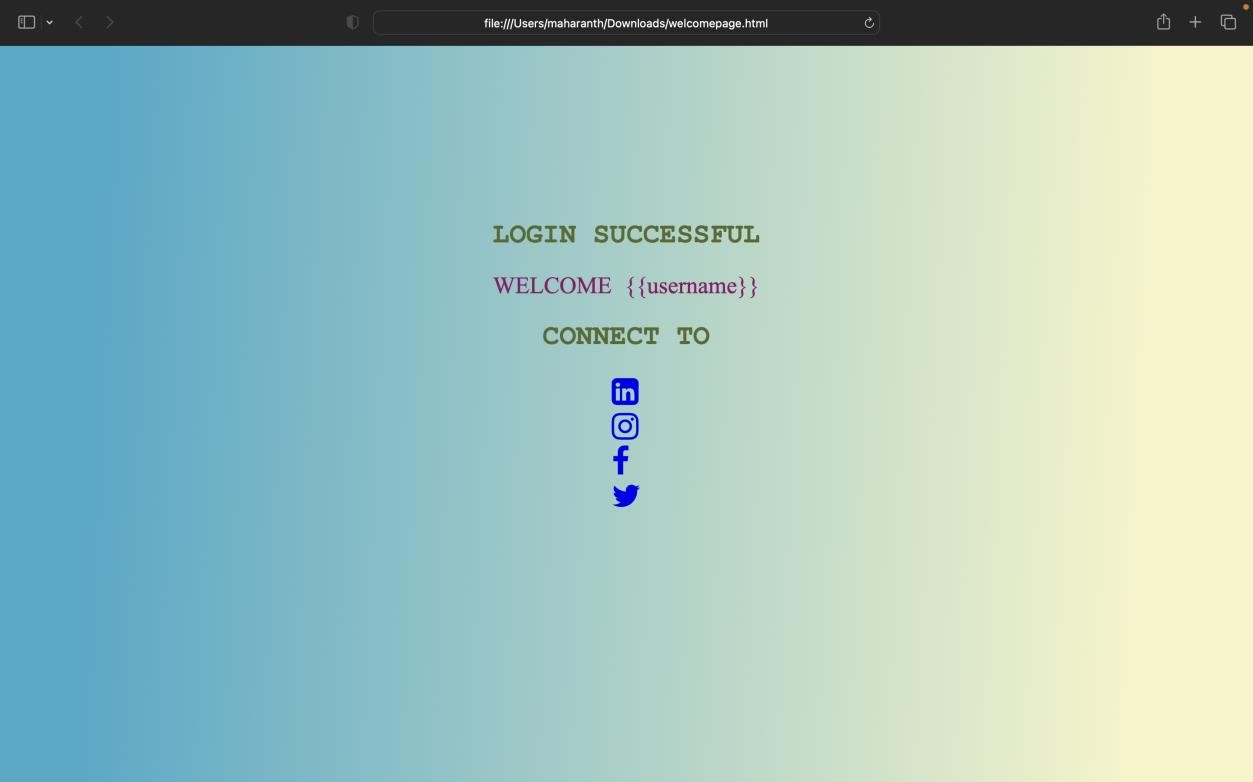




## USER ACCEPTANCE TESTING







1. **ADVANTAGES AND DISADVANTAGES**
   * This app can be accessed anywhere and anytime, So that the user can view

the news

* + Its ad free
  + The news is only based on the API
  + It may contain some unwanted content but we don’t have control over it
  + The user can bookmark their favourite news.

## CONCLUSION

Thus we have developed a full stack application based on the plans and within the given time. We have tested the application in both desktop and mobile and it worked well, Overall it was a great experience.

## FUTURE SCOPE

In future we may integrate our own news API instead of third party APIs and may develop a mobile native application so that it can be used in both android and ios.