IBM-Project-7918-1658902616 NEWS TRACKER APPLICATION

Project Domain : Cloud Application Devlopment

Team ID: PNT2022TMID20111

TEAM MEMBERS

- 1.Kessav
- 2.Madhumitha
- 3.Mugunthan
- 4.Naren Shanmugam

1. INTRODUCTION

Project Overview

As our lives are very busy these days, we often feel we need more than 24 hrs. a day to cope up with everything we have in our schedule. Well, that is not possible but reducing the time by changing the conventional method of reading news can help. Just tell us what market news you are 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.

1.2 **Purpose**

Newspapers are one of the most popular and most needed commodities in our daily life. In today's busy world, reading newspapers has become one of the traditional ways of getting news. News is produced every minute and distributed via television, radio, and the Internet, so the news updated the next morning is already outdated. So, newspaper and magazine publishers have a hard time keeping up with the pace. Change is needed and publishers must embrace mobile.

2.LITERATURE SURVEY

References

- 1. https://flask.palletsprojects.com/en/2.1.x/tutorial/
- 2. https://www.ibm.com/docs/en/db2-for-zos/11?topic=zos-db2-basics-tutorial-working-db2-interactively
- 3. https://developer.ibm.com/components/cloud-foundry/tutorials/
- **4.** https://www.ibm.com/in-en/products/watson-assistant/docs-resources
- 5. https://cloud.ibm.com/docs/cloud-object-storage?topic=cloud-object-storage-getting-started-cloud-object-storage

Problem Statement Definition

In today's world we have a lot of work and there is no time to cope up everything in the schedule. So, it is not possible to read the newspaper. By using this application, the user can access the news they are interested and get a quick peek for the day. There are multiple news-sharing apps used by a single user and are often spammed with notifications. There is also a lot of fake news which gets shared. A news-sharing app wants to help users find relevant and important news easily every day and also understand explicitly that the news is not fake but from proper sources. This news tracker application helps the user to get all information about commodities, sports, technology, education etc. The user can register using their personal details and interacts with the application and save their time.

Creating an app that benefits with the smart news filtering functionality where it allows its users to segregate various news sections, comprising of business, sports, political, international, and more.

The users can opt for filters like Breaking News, Most Popular, and more. Creating a user-friendly news app that would not just have good number of features, but will also be able to get accessed by different types of users keeping the experience delightful.

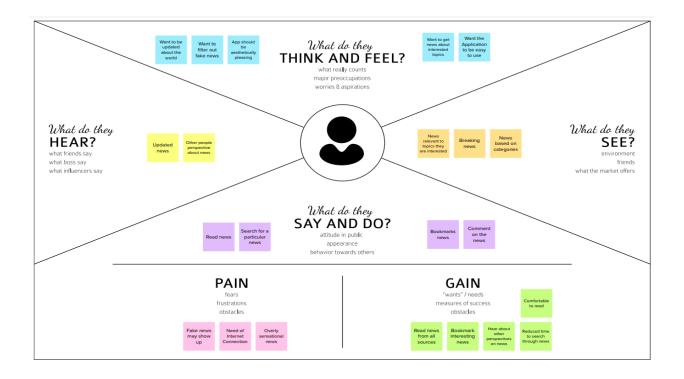
S.No	Topic	Author	Abstract	Year	Accu racy
1.	Opinion Extraction, Summarizationand tracking inNews	Lun Wei Ku,Yu Ting Liang, Hsin hsi Chen	TREC, NTCIR and articles collected from web blogs and news serve as the info sources of opinion extraction. Algorithms for opinion extraction at word,	2003	85%
			sentence and document level are proposed. The issue of relevant sentence selection is discussed, and then topical and opinionated information are summarized and visualized by representative sentences.		
2.	News Classification	Mazhar Iqbal Rana,Sherzad Khalid, Muhammad Usman Akbar	The proposed system focuses on full news ,huge documents, long length texts etc. It is more prominent as compared to the short length text. Text classification process, classifiers, and numerous feature extraction methodologies but all in context of short texts i.e. news classification basedon their headlines. Existing classifiers and their working methodologies are being compared	2014	76%

3.	Breaking News Detection andTracking in Twitter	Swit Phuvioadawat, Tsuyoshi Murata	Mainly Twitter has been used as one of the communication channelsfor spreading breaking news. We propose a method tocollect, group, rank and track breaking news in Twitter. Since short length messages make similaritycomparison difficult, we boost scores on proper nouns to improve the grouping results based onpopularity and reliability factors.	2010	78%
4.	Tracking Newsstories across different sources	Yun Zhai, Mubarak Shah	Tracking method in whichlinks news stories on the same topic across multiple sources. The semantic linkage between the news stories is reflected in combination of both their visual contentand their spoken language content. Visually, each news story is represented by a set of key-frames with or withoutdetected faces. The facial key-frames are linked based on the analysis ofthe extended facial regions, and the non-facial key-frames arecorrelated using the global Affine matching.	2005	80%

5.	Learning approaches for detecting and tracking news events	Y. Yang, J.G. Carbonell, R.D Brown, T. Peirce, B.T. Archibald	The article discusses ourresearch using manually segmented documents. It is used supervised learningand unsupervised clustering algorithms to allow document classification based on the information content and temporal aspects of news events. They've adapted severalIR and machine learningtechniques for effective event detection and tracking.	1999	60%
----	--	---	--	------	-----

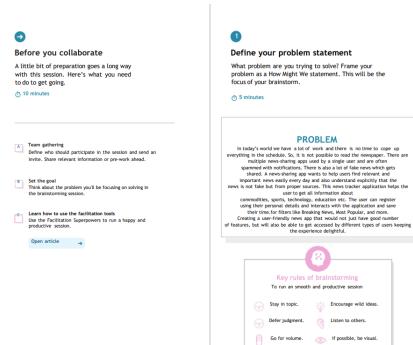
3. IDEATION & PROPOSED SOLUTION

Empathy Map Canvas



Ideation & Brainstorming







Brainstorm

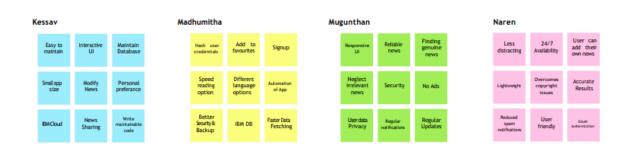
Write down any ideas that come to mind that address your problem statement.

→ 10 minutes



Encourage wild ideas.

PROBLEM

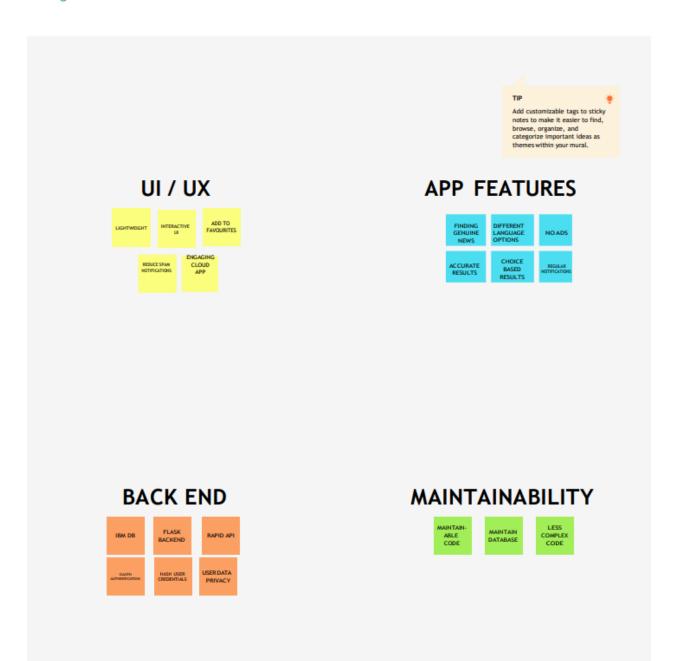




Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

→ 20 minutes

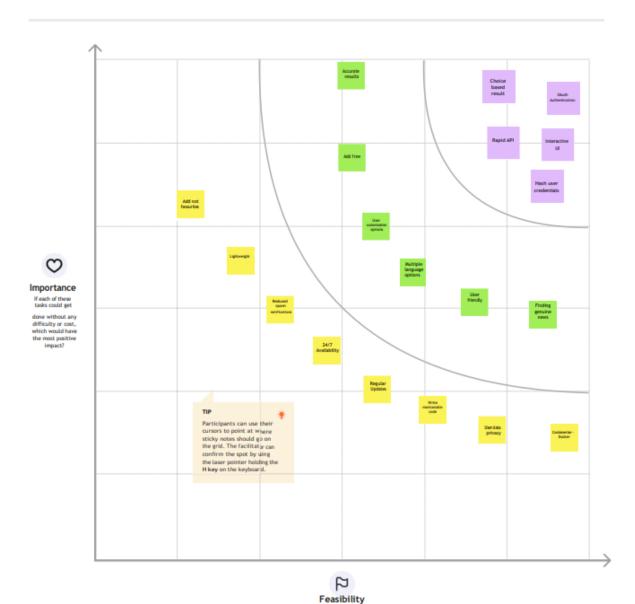




Prioritize

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.

① 20 minutes



Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

Proposed Solution

S.NO.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Statement: Everyday, a lot of events happen world-wide and we rely on newspapers, television and news articles to get the reliable and trust-worthy information about theseevents.
		Description: As a result, we created a platform that offers such news from reliable sources worldwide, in an organized and efficient manner.
2.	Idea / Solution description	One platform for all localand worldwide news. Trustworthy and Reliable News. Fast and efficient system. Preventing spreadof False information. Data Storageand Backup.
3.	Novelty / Uniqueness	Communication. A cloud computing-based news application that generates news and reports about the happenings aroundthe world using computers and network (Internet).
		News based on most reliable and trustworthyresources around the world. Developing the Eco- Friendly & sustainabilitybasedon centre.

4.	Social Impact / Customer Satisfaction	Cloud computing offers a way to create, coordinate, and share information across the globe. The adoption of cloud-based services givesaccess to a wider rangeof data and sharing theimportant information in an efficient way. Our platform eliminates the spread of false news and exposes the injustice and wrongdoings doneby false groups.
		Eliminating the fake news provides better understanding of the real-events happening inthe world and the spread of knowledge.

5.	Business Model (Revenue Model)	Our application covers a range of topics including politics, business, criminal justice, environment, technology etc. Our business model will be monetized and
		generate incomeby showing advertisements and Operating on monthly and yearly subscription model.
6.	Scalability of the Solution	Scalability is one of the benchmarks of the cloudservices and its adoption with businesses. Cloudscalability will help to increase the userbase by increasing the resource allocation and meeting the changing demands without sacrificing the efficiency or quality of our customer serviceand internal operations. Providing fast and reliable news while maintaining positive relationships with your customers.

Problem Solution fit

Project Title: News Tracker Application Project Design Phase-I - Problem Solution Fit Team ID: PNT2022TMID20111

DefineCS, fitintoCC	1.CUSTOMER SEGMENT(S) Hackers,CCTNS(crime and criminal tracking network and system),commercial and scientific purposes,media monitoring.	6.CUSTOMER CONSTRAINTS As much as service providers need to cater to the needs of their customers, it is just as important for them to satisfy their customers.	The internet and the intermingling of social media with important worldwide events has made it almost impossible to live under a rock. But finding a reliable one-stop shop to engage with your news can be somewhat of a challenge.
Focus on J&P, tapintoBE, understandRC	2.JOBS-TO-BE-DONE / PROBLEMS We've written a whole white paper on the topic ,and examples of how our stories have produced such change-from the registration. It corrupt officials to the passage of news lawsare compiled in our annual reports, on this page you'll find our reporting on the impact of our work.	9.PROBLEM ROOT CAUSE User doesn't want to waste time figuring out the the relevance of the news young people don't read news from apps, usually depend on social media to get updated Users sometimes get overwhelmed by too many categories.	7.BEHAVIOUR User experience, content performance popularity sharing the news, convertion rate optimization, checkout process website acessebility, livechat and first and formost, user data is super important.
IdentifystrongTR&EM	3.TRIGGERS This news app is a big interactive database that think of it like would any other piece of journalism. It just uses software instead of words and pictures. 4.EMOTIONS: BEFORE /AFTER Fearness, statisfaction, anger and two sentiments (positive and negative) using to extraction.	10. YOUR SOLUTION Realtime monitoring ,working condition is ensured and restricted permission from entering highly secured areas.	8.CHANNELS of BEHAVIOURS 8.1 ONLINE A few of these local stories were the result of formal partnerships, but the majority were done quite independently – in some cases, we didn't have much if any knowledge that the story . 8.2 OFFLINE Although marketing has gone largely digital, the offline advertising world is still a significant one, means a lot of money gets spent on display ads.

4.REQUIREMENT ANALYSIS

Functional Requirements:

Following are the functional requirements of the proposed solution

FR No.	Functional Requirement(Epic)	Sub Requirement (Story/ Sub-Task)
FR-1	User Installation	User can install the app fromGoogle play storeor from the website
FR-2	User Registration	Registration through Form Registration through Gmail
FR-3	User Confirmation	Confirmation via Email Confirmation via OTP
FR-4	User Login	User should login theapp with the user's nameand password

Non-functional Requirements:

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

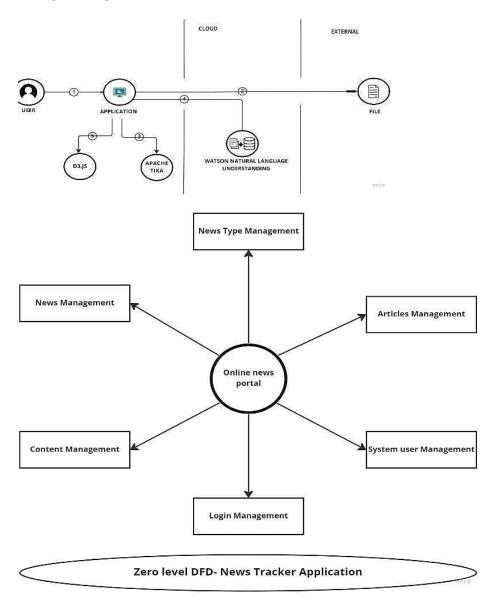
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Everyone can understand the process of using the app easily by the commands given in theapp.
NFR-2	Security	It is a moresecured app. No fakenews can be shared.
NFR-3	Performance	Performance of the app is verygreat
NFR-4	Availability	More sub categories are available

5.PROJECT DESIGN

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 isstored.

Example: (Simplified) Flow

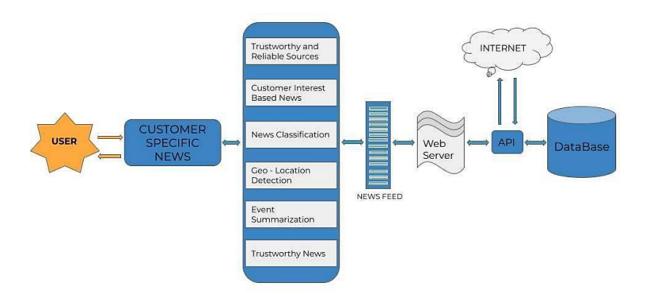


Solution & Technical Architecture

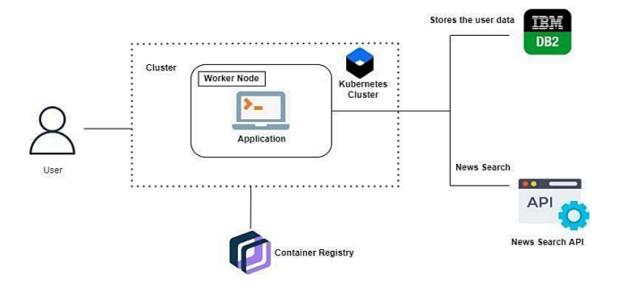
Solution architecture is a complex process, with many sub-processes that the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems. Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements to the project.
- Provide specifications according to which the solution is defined, managed, and delivered to the customers.

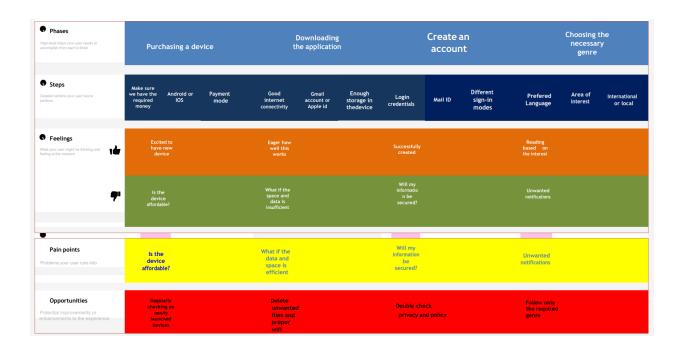
Solution Architecture diagram



Technical Architecture



User Stories



6.PROJECT PLANNING & SCHEDULING

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	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-2		USN-3	As a user, I can register for the application through Facebook	2	Low	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	Mugunthan Kessav Madhumitha Naren shanmugam

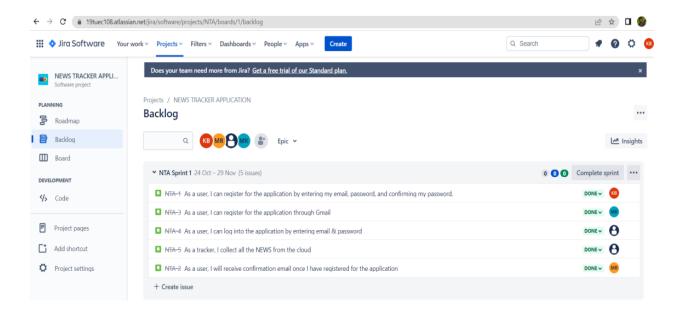
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-3	Dashboard	USN-6	As a user, I will able to see the login and profile details	2	Medium	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-4	Chat box	USN-8	As a customer care executive, I can ask about the inconvenience and the usability about the app	2	Medium	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-1	IBM cloud	USN-10	As a tracker, I collect all the NEWS from the cloud	1	Medium	Mugunthan Kessav Madhumitha Naren shanmugam
Sprint-3	IBM DB2	USN-11	As a database manager, I can collect all the user details and NEWS application details	2	Medium	Mugunthan Kessav Madhumitha Naren shanmugam

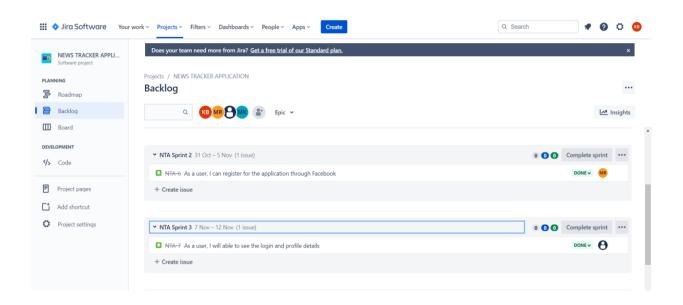
Sprint Delivery Schedule

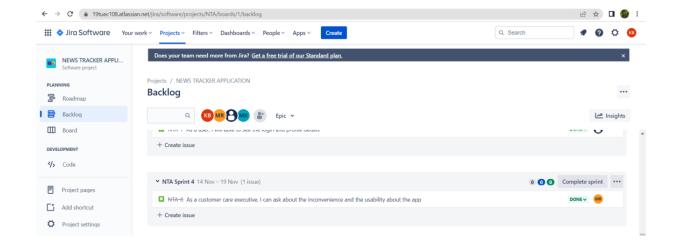
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022



Reports from JIRA







7.CODING & SOLUTIONING

Features

```
from flask import Flask, render_template, session, request, redirect,make_response
import ibm_db
from ibm_db2_connect import db2
import news
import json
app = Flask(__name__)
app.secret_key = "secret_key"
@app.route('/', methods=['GET', 'POST'])
def index():
if session.get('logged_in'):
return render_template('home.html')
return render_template('index.html')
@app.route('/login',methods=['POST'])
def login():
form_user = request.form['username']
session['logged_in']=form_user
return redirect('/')
@app.route('/loginvalidate',methods=['POST','GET'])
def loginvalidate():
conn = db2.get_conn()
data=request.get_json();
form_user = data['email']
form_password = data['password']
sql = 'SELECT username from user WHERE mail=? and password=?'
stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt, 1, form_user)
ibm_db.bind_param(stmt, 2, form_password)
ibm_db.execute(stmt)
account = ibm_db.fetch_assoc(stmt)
if account:
response = make_response('success',200)
else:
response = make_response('failure',200)
response.mimetype = "text/plain"
return response
```

```
@app.route('/register',methods=['POST'])
def register():
try:
conn = db2.get_conn()
data=request.get_json();
form_user = data['username']
form_password = data['password']
form_mail = data['mail']
form_phone = data['phone']
sql = 'insert into user values(?,?,?,?)'
stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt, 1, form_user)
ibm_db.bind_param(stmt, 2, form_password)
ibm_db.bind_param(stmt, 3, form_mail)
ibm_db.bind_param(stmt, 4, form_phone)
ibm_db.execute(stmt)
response = make_response('success',200)
except Exception as e:
response = make_response('failure',200)
print(e)
return response
@app.route('/checkForExistingUser',methods=['POST'])
def checkForExistingUser():
conn = db2.get_conn()
data=request.get_json();
email=data['email'];
print(email)
sql = 'SELECT mail from user WHERE mail=?'
stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt, 1, email)
ibm_db.execute(stmt)
account = ibm_db.fetch_assoc(stmt)
print(account)
if account:
response = make_response('true',200)
else:
response = make_response('false',200)
response.mimetype = "text/plain"
return response
```

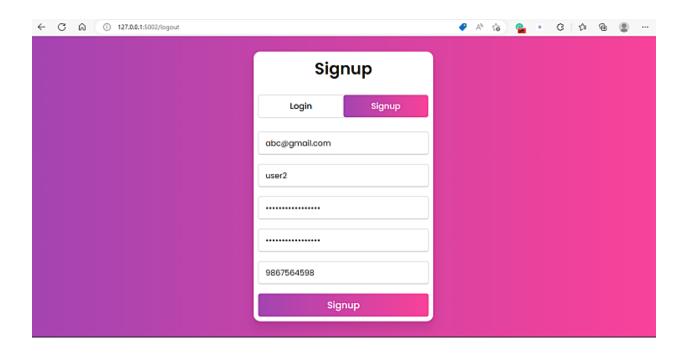
```
@app.route('/logout')
def logout():
session.clear()
return render_template('index.html')
if __name__ == '__main__':
app.run(debug=True, port=5002)
import ibm db
import config as c
class db2:
connectionString="DATABASE={0};HOSTNAME={1};PORT={2};SECURITY={3};SSLServerCertificate={4};U
ID={5};PWD={6}".format(c.DATABASE,c.HO
conn = ibm_db.connect(connectionString,",")
def get_conn():
return db2.conn
#NEWSTRACKER APPLICATION_TEAM_IDPNT2022TMID20111
<html lang="en" dir="ltr">
<head>
<meta charset="utf-8"/>
<title>Login and Registration in HTML | CodingNepal</title>
<link rel="stylesheet" href="../static/index.style.css" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
</head>
<body>
<div class="wrapper">
<div class="title-text">
<div class="title login">Login</div>
<div class="title signup">Signup</div>
</div>
<div class="form-container">
<div class="slide-controls">
<input type="radio" name="slide" id="login" checked />
<input type="radio" name="slide" id="signup" />
<label for="login" class="slide login">Login</label>
<label for="signup" class="slide signup">Signup</label>
<div class="slider-tab"></div>
</div>
<div class="form-inner">
```

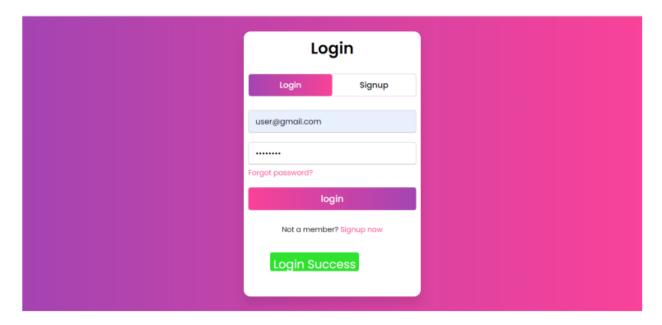
```
<form action="" class="login" id="loginForm">
<div class="field">
<input
type="text"
id="log_in_email"
placeholder="Email"
required
/>
</div>
<div class="field">
<input
type="password"
id="log_in_password"
placeholder="Password"
required
/>
</div>
<div class="pass-link">
<a href="#">Forgot password?</a>
</div>
<div class="field btn">
<div class="btn-layer"></div>
<input type="submit" value="login" id="loginbutton" />
</div>
<div class="signup-link">
Not a member? <a href="">Signup now</a>
</div>
</form>
<form action="" class="signup" id="registerForm">
<div class="field">
<input type="email" placeholder="Email Address" required id="email" name="email" />
</div>
<div class="field">
<input type="text" placeholder="Username" required id="username" name="username" />
</div>
<div class="field">
<input type="password" placeholder="Password" required id="password" name="password"/>
</div>
<div class="field">
```

```
<input type="password" placeholder="Confirm password" required id="confirmPassword"
name="confirmPassword"/>
</div>
<div class="field">
<input type="number" placeholder="Phone Number" required id="phoneNumber" name="phoneNumber"
value=""/>
</div>
<div class="field btn">
<div class="btn-layer"></div>
<input type="submit" value="Signup" id="registerButton" />
</div>
</form>
</div>
</div>
</div>
<span style="" id="message" class=""></span>
link rel="stylesheet" href="//code.jquery.com/ui/1.13.2/themes/base/jquery-ui.css">
<script src="https://code.jquery.com/jquery-3.6.1.js" integrity="sha256-</pre>
3zlB5s2uwoUzrXK3BT7AX3FyvojsraNFxCc2vC/7pNI=" crossorigin=
<script src="https://code.jquery.com/ui/1.13.2/jquery-ui.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-validate/1.19.0/jquery.validate.min.js"> </script>
<script src="{{url for('static',filename='index.script.js')}}"></script>
</body>
</html>
← C A ① 127.0.0.1:5002/logout
                                                                          🐶 A^ 😘 🔒 🗷 G | 😉 📵 🚇 ...
                                                 Signup
                                                           Signup
                                             Login
                                        abc@gmail.com
                                        user2
                                        .....
                                        9867564598
                                                   Signup
```

8.TESTING

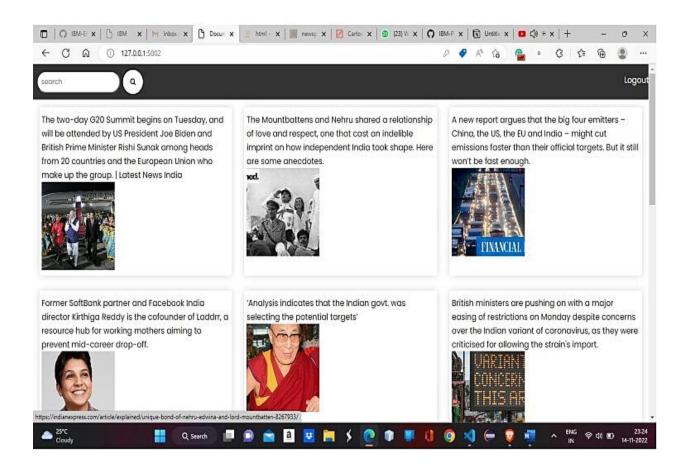
Test cases and user acceptance testing





9.RESULTS

Performance Metrics



10.ADVANTAGES AND DISADVANTAGES

ADVANTAGES OF NEWS TRACKER APPLICATION

- 1. An online newspaper allows the reader to interact with the paper itself. Readers can now leave comments, watch videos, view photo slideshows and oftentimes contribute their own opinions and written pieces to the paper.
- 2. Sometimes online editions will even leave out content from the print newspaper's regular edition.
- **3**. The wide range of access points also contributes to the success of the online newspaper. Viewers can get their news straight off their smartphone or tablet computer.
- **4.** News is at their fingertips in an instant.

DISADVANTAGES OF NEWS TRACKER APPLICATION

- 1. Require data/wifi to get online
- 2. Companies not making as much money due to free reading for audiences
- 3. News spreads quicker online people find out news before they should
- 4. Lose money can't get people to pay for digital
- 5. Older audiences may not access digital platforms
- 6. Costly to maintain
- 7. Errors stay online FOREVER

11.CONCLUSION

This is fast evolving world with modernization taking a toll on the world, people nowadays prefer to spend time more on the gadgets rather than reading newspaper.

News site is an web application which makes news paper reading much interesting and easier.

The easily usable API and other softwares makes this application very user friendly and most of all save time.

12. FUTURE SCOPE

Implement automated location functionality. This means that as a user moves from one city to another, the local news will change offline browsing can be improved to complete articles more efficiently. This version of app is in the seeding stage and there is a lot of room for future enhancements. Features that can be added for later versions are as follows:

- 1. Save video
- 2. Watch this later.

13.APPENDIX

Source code

ajaxRequests.js

```
// const { readFileSync, promises: fsPromises } = require("fs");
$(document).ready(function () {
 testFunction();
 function testFunction(){
  // search_val = $("#searchBox").val();
  search_val="india"
  var queryString = { q: search_val };
  $.ajax({
   method: "POST",
   url: "/search",
   contentType: "application/json;charset=utf-8",
    cache: false,
   datatype: "text",
   data: JSON.stringify(queryString),
    success: function (data) {
    // alert("yes");
     wholeJson = JSON.parse(data);
     articles=wholeJson['articles'];
     // $("#news").text(data)
     showNews(articles);
   },
    error: function (data) {
    // alert("error");
   },
  });
 }
 function showNews(articles) {
  // articles = wholeJson["articles"];
  var newslist = document.getElementById("newsList");
  newslist.innerHTML = "";
  for (var i = 0; i < articles.length; i++) {
   description = articles[i].description;
   image_url = articles[i].urlToImage;
   link_url = articles[i].url;
   var a=document.createElement("a");
   var li = document.createElement("li");
```

```
var image = document.createElement("img");
    image.src = image_url;
    image.innerHTML = "<img src=" + image_url + ' class="newsImages"/>';
    li.innerHTML =
    '<div class="newsLi" id="news_' + i + "">' + description + "</div>";
   li.appendChild(image);
    a.setAttribute('href',link_url)
    a.setAttribute('target','_blank')
    a.appendChild(li);
   newslist.appendChild(a);
  }
 }
 $("#searchButton").click(function () {
  search_val = $("#searchBox").val();
  var queryString = { q: search_val };
  $.ajax({
   method: "POST",
   url: "/search",
   contentType: "application/json;charset=utf-8",
   cache: false,
    datatype: "text",
   data: JSON.stringify(queryString),
    success: function (data) {
    // alert("yes");
     wholeJson = JSON.parse(data);
     articles=wholeJson['articles'];
     // $("#news").text(data)
     showNews(articles);
   },
    error: function (data) {
     alert("error");
   },
  });
});
});
```

home.style.css

```
@import url("https://fonts.googleapis.com/css?family=Poppins:400,500,600,700&display=swap");
* {
 margin: 0;
 box-sizing: border-box;
 padding: 0;
 font-family: "Poppins", sans-serif;
nav.navbar {
 position: sticky;
 top: 0;
 width: 100vw;
 display: grid;
 grid-template-columns: 1fr 1fr;
 background-color: #333;
nav.navbar .searchContainer {
 display: inline-block;
 padding: 0.5rem;
/* height:100px; */
nav.navbar .searchContainer input {
 padding: 0.5rem;
 border-radius: 50px;
}
nav.navbar .searchContainer button {
 border-radius: 1.5rem;
 width: 3rem;
 height: 3rem;
 color: #000;
 background:#fff;
 cursor: pointer;
 transition: background 0.5s ease;
nav.navbar .searchContainer button:hover{
 background: -webkit-linear-gradient(right, #a445b2, #fa4299, #a445b2, #fa4299);
```

```
color:#fff;
}
nav.navbar .userProfile .logout {
 float: right;
 padding: 1rem;
nav.navbar .userProfile .logout a {
 text-decoration: none;
 color: #fff;
}
.news #newsList {
 list-style: none;
 display: grid;
 grid-template-columns: 1fr 1fr 1fr;
 /* flex-direction: column; */
.news #newsList a {
 border-radius: 5px;
 margin: 1vw;
 box-shadow: 0 0 15px -2px rgba(0, 0, 0, 0.2);
 text-decoration: none;
 color: #000000;
.news #newsList a li {
 padding: 10px 5px;
 overflow: scroll;
.news #newsList a li::-webkit-scrollbar {
 display: none;
}
.news #newsList a li img {
 width: 10rem;
 height: 10rem;
 display: block;
 object-fit: cover;
}
```

index.script.js

```
const loginText = document.querySelector(".title-text .login");
const login = document.querySelector("form.login");
const loginBtn = document.querySelector("label.login");
const signupBtn = document.querySelector("label.signup");
const signupLink = document.querySelector("form .signup-link a");
signupBtn.onclick = () => {
 login.style.marginLeft = "-50%";
 loginText.style.marginLeft = "-50%";
loginBtn.onclick = () => {
 login.style.marginLeft = "0%";
 loginText.style.marginLeft = "0%";
};
signupLink.onclick = () => {
 signupBtn.click();
 return false;
};
// Above code is completely for stylings
$(document).ready(function () {
 function handleError(message) {
  $("#message").addClass("errorForMessage", 500, callBack);
  $("#message").text(message);
  $("#message").animate(
     height: "60px",
     padding: "10px",
   },
   500
  );
  function callBack() {
    setTimeout(function () {
     $("#message").animate(
       height: "0",
       padding: "0",
      },
      500
    );
```

```
setTimeout(function () {
     $("#message").removeClass("errorForMessage");
   }, 1500);
  }, 1500);
 }
}
function handleSuccess(message) {
 return new Promise(function (resolve, reject) {
   $("#message").addClass("successForMessage", 500, callBack);
   $("#message").text(message);
   $("#message").animate(
     height: "60px",
     padding: "10px",
   500
  );
  function callBack() {
    setTimeout(function () {
     $("#message").animate(
       height: "0",
       padding: "0",
      },
      500
     );
     setTimeout(function () {
      $("#message").removeClass("successForMessage");
      resolve();
     }, 1500);
}, 1500);
}
 });
}
function postForm(path, params, method) {
 method = method || "post";
 var form = document.createElement("form");
 form.setAttribute("method", method);
 form.setAttribute("action", path);
```

```
for (var key in params) {
   if (params.hasOwnProperty(key)) {
    var hiddenField = document.createElement("input");
    hiddenField.setAttribute("type", "hidden");
    hiddenField.setAttribute("name", key);
    hiddenField.setAttribute("value", params[key]);
    form.appendChild(hiddenField);
  }
}
  document.body.appendChild(form);
 form.submit();
}
$("#loginForm").submit(function (e) {
  e.preventDefault();
  email = $("#log_in_email").val();
  password = $("#log_in_password").val();
  var data = { email: email, password: password };
  $.ajax({
   method: "POST",
   url: "/loginvalidate",
   contentType: "application/json;charset=utf-8",
   cache: false,
   datatype: "text",
   data: JSON.stringify(data),
   success: function (data) {
    if (data == "success") {
     handleSuccess("Login Success").then(function(){
       postForm("/login",{username:username})
     });
    } else {
     handleError("Invalid credentials");
    }
   },
   error: function (data) {
    alert("error" + data);
  },
 });
 return false;
});
```

```
// Above code is for login
function checkForExistingUser(data) {
 return new Promise(function (resolve, reject) {
  var emailJson = { email: data };
  $.ajax({
   method: "POST",
   url: "/checkForExistingUser",
   contentType: "application/json",
   cache: false,
   datatype: "text",
   async: false,
   data: JSON.stringify(emailJson),
   success: function (data_from_server) {
     if (data_from_server !== "true") {
      console.log("yes");
      resolve(data_from_server);
    } else {
      handleError("Email Id is already in use");
      reject(data_from_server);
    }
   },
   error: function (data_from_server) {
     reject(data_from_server);
   },
  });
});
}
$.validator.addMethod(
 "validatePassword",
 function (value, element) {
  return (
   this.optional(element) ||
   /^{?=.*?[A-Z]}(?=.*?[a-z])(?=.*?[0-9])(?=.*?[#?!@$%^&*-]).{8,}$/.test(
    value
   )
  );
 "Password must contain 1 uppercase,1 lowercase,1 number,1 special character"
);
$.validator.addMethod(
 "validatePhone",
```

```
function (value, element) {
  return this.optional(element) || /^[6-9]\d{9}$/.test(value);
 },
 "Enter valid Phone Number"
);
$("#registerForm").validate({
 rules: {
   email: {
    required: true,
    email: true,
  },
   username: {
    required: true,
   password: {
    required: true,
   validatePassword: true,
  },
   confirmPassword: {
    required: true,
    equalTo: "#password",
   phoneNumber: {
    required: true,
    validatePhone: true,
  },
 },
 messages: {
  email: {
    required: "Email is required",
    email: "Enter valid email",
  },
   username: {
    required: "Username is required",
  },
   password: {
    required: "Password is required",
    minlength: "Password must contains minimum 8 characters",
  },
  confirmPassword: {
    equalTo: "Password must be equal to confirm Password",
    required: "Confirm Password is required",
```

```
},
 phoneNumber: {
  required: "Phone Number is required",
 },
},
submitHandler: function (form) {
 email = $("#email").val();
 checkForExistingUser(email)
  .then(function () {
   console.log("mail is available");
   mail = $("#email").val();
   username = $("#username").val();
   password = $("#password").val();
   phone = $("#phoneNumber").val();
   jsonObject = {
     mail: mail,
     username: username,
     password: password,
     phone: phone,
   };
   $.ajax({
     method: "POST",
     url: "/register",
     contentType: "application/json",
     cache: false,
     datatype: "text",
     async: false,
     data: JSON.stringify(jsonObject),
     success: function (data_from_server) {
      if (data_from_server == "success") {
       // console.log("yes submitted");
       handleSuccess("Sign up Success!").then(function(){
         window.location.href = "/";
       })
      } else {
       handleError("Sign up Failed");
       // console.log("not submitted");
      }
     error: function (data_from_server) {
      console.log("not submitted");
    },
   });
```

```
})
    .catch(function () {
     console.log("mail is already used");
    });
   return false;
 },
});
});
index.style.css
/* * {
 padding: 0;
 box-sizing: border-box;
 margin: 0;
.container {
 position: absolute;
 top: 50%;
 left: 50%;
 transform: translate(-50%, -50%);
 width: 50vw;
 text-align: center;
.container form input[type=text],input[type=password] {
 margin: 5px;
 border: 1px solid #000000;
 border-radius: 50px;
} */
______
*/
@import url('https://fonts.googleapis.com/css?family=Poppins:400,500,600,700&display=swap');
 margin: 0;
 padding: 0;
 box-sizing: border-box;
 font-family: 'Poppins', sans-serif;
html,body{
 overflow: hidden;
```

```
display: grid;
 height: 100%;
 width: 100%;
 place-items: center;
 background: -webkit-linear-gradient(left, #a445b2, #fa4299);
::selection{
 background: #fa4242;
 color: #fff;
.wrapper{
/* float: right; */
 overflow: hidden;
 max-width: 390px;
 background: #fff;
 padding: 10px;
 border-radius: 15px;
 box-shadow: 0px 15px 20px rgba(0,0,0,0.1);
 margin:2rem;
.wrapper .title-text{
 display: flex;
 width: 200%;
.wrapper .title{
 width: 50%;
 font-size: 35px;
 font-weight: 600;
 text-align: center;
 transition: all 0.6s cubic-bezier(0.68,-0.55,0.265,1.55);
.wrapper .slide-controls{
 position: relative;
 display: flex;
 height: 50px;
 width: 100%;
 overflow: hidden;
 margin: 30px 0 10px 0;
 justify-content: space-between;
 border: 1px solid lightgrey;
 border-radius: 5px;
.slide-controls .slide{
```

```
height: 100%;
 width: 100%;
 color: #fff;
 font-size: 18px;
 font-weight: 500;
 text-align: center;
 line-height: 48px;
 cursor: pointer;
 z-index: 1;
 transition: all 0.6s ease;
.slide-controls label.signup{
 color: #000;
.slide-controls .slider-tab{
 position: absolute;
 height: 100%;
 width: 50%;
 left: 0;
 z-index: 0;
 border-radius: 5px;
 background: -webkit-linear-gradient(left, #a445b2, #fa4299);
 transition: all 0.6s cubic-bezier(0.68,-0.55,0.265,1.55);
input[type="radio"]{
 display: none;
#signup:checked ~ .slider-tab{
 left: 50%;
#signup:checked ~ label.signup{
 color: #fff;
 cursor: default;
 user-select: none;
#signup:checked ~ label.login{
 color: #000;
#login:checked ~ label.signup{
 color: #000;
#login:checked ~ label.login{
 cursor: default;
```

```
user-select: none;
.wrapper .form-container{
 width: 100%;
 overflow: hidden;
.form-container .form-inner{
 display: flex;
 width: 200%;
.form-container .form-inner form{
 width: 50%;
 transition: all 0.6s cubic-bezier(0.68,-0.55,0.265,1.55);
.form-inner form .field{
 height: 50px;
 width: 100%;
 margin-top: 20px;
.form-inner form .field input{
 height: 100%;
 width: 100%;
 outline: none;
 padding-left: 15px;
 border-radius: 5px;
 border: 1px solid lightgrey;
 border-bottom-width: 2px;
 font-size: 17px;
 transition: all 0.3s ease;
.form-inner form .field input:focus{
 border-color: #fc83bb;
 /* box-shadow: inset 0 0 3px #fb6aae; */
.form-inner form .field input::placeholder{
 color: #999;
 transition: all 0.3s ease;
form .field input:focus::placeholder{
 color: #b3b3b3;
.form-inner form .pass-link{
 margin-top: 5px;
```

```
.form-inner form .signup-link{
 text-align: center;
 margin-top: 30px;
.form-inner form .pass-link a,
.form-inner form .signup-link a{
 color: #fa4299;
 text-decoration: none;
.form-inner form .pass-link a:hover,
.form-inner form .signup-link a:hover{
 text-decoration: underline;
form .btn{
 height: 50px;
 width: 100%;
 border-radius: 5px;
 position: relative;
 overflow: hidden;
form .btn .btn-layer{
 height: 100%;
 width: 300%;
 position: absolute;
 left: -100%;
 background: -webkit-linear-gradient(right, #a445b2, #fa4299, #a445b2, #fa4299);
 border-radius: 5px;
 transition: all 0.4s ease;;
form .btn:hover .btn-layer{
 left: 0;
form .btn input[type="submit"]{
 height: 100%;
 width: 100%;
 z-index: 1;
 position: relative;
 background: none;
 border: none;
 color: #fff;
 padding-left: 0;
 border-radius: 5px;
```

```
font-size: 20px;
 font-weight: 500;
 cursor: pointer;
}
#message{
 visibility: hidden;
 padding: 10px;
 position:absolute;
 top: 80%;
 height: 0;
 left:40%;
 font-size: 4vh;
 overflow: hidden;
 border-radius: 5px;
}
.errorForMessage{
 visibility: visible !important;
 background-color:rgb(200, 0, 0,.5);
 color: #ffffff;
}
.successForMessage{
 visibility: visible !important;
 background-color:rgb(46, 226, 46);
 color:#fffff;
}
```

templates

home.html

```
<!DOCTYPE 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" />
  <title>Document</title>
  <script
   src="https://code.jquery.com/jquery-3.6.1.js"
   integrity="sha256-3zlB5s2uwoUzrXK3BT7AX3FyvojsraNFxCc2vC/7pNI="
   crossorigin="anonymous"
  ></script>
  k
   rel="stylesheet"
   href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css"
  />
  k rel="stylesheet"
  href="{{url_for('static',filename='home.style.css')}}"
 </head>
 <body>
  <nav class="navbar">
   <div class="searchContainer">
    <input
     type="text"
     name="searchBox"
     id="searchBox"
     placeholder="search"
    <button id="searchButton">
      <i class="fa fa-search" aria-hidden="true"></i>
    </button>
   </div>
   <div class="userProfile">
    <div class="logout">
     <a href="{{url_for('logout')}}" target="" rel="">Logout</a>
    </div>
   </div>
```

```
</nav>
  <div class="news">
   ul id="newsList">
  </div>
  <script src="{{url_for('static',filename='ajaxRequests.js')}}"></script>
 </body>
</html>
{#
<h1>hi u have succefully logged in</h1>
<a href="{{url_for('logout')}}">Logout</a>
<input type="text" placeholder="search" id="search" />
<script
 src="https://code.jquery.com/jquery-3.6.1.js"
 integrity="sha256-3zlB5s2uwoUzrXK3BT7AX3FyvojsraNFxCc2vC/7pNI="
 crossorigin="anonymous"
></script>
<input type="button" value="get news !" id="getNews" />
ul id="newslist">
<script src="{{url_for('static',filename='ajaxRequests.js')}}"></script>
#}
```

index.html

```
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8"/>
  <title>Login and Registration in HTML | CodingNepal</title>
  k rel="stylesheet" href="../static/index.style.css" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
 </head>
 <body>
  <div class="wrapper">
   <div class="title-text">
     <div class="title login">Login</div>
     <div class="title signup">Signup</div>
   </div>
   <div class="form-container">
     <div class="slide-controls">
      <input type="radio" name="slide" id="login" checked />
```

```
<input type="radio" name="slide" id="signup" />
      <label for="login" class="slide login">Login</label>
      <label for="signup" class="slide signup">Signup</label>
      <div class="slider-tab"></div>
     </div>
     <div class="form-inner">
      <form action="" class="login" id="loginForm">
       <div class="field">
         <input
          type="text"
          id="log_in_email"
          placeholder="Email"
          required
        />
       </div>
       <div class="field">
        <input
         type="password"
          id="log_in_password"
          placeholder="Password"
          required
        />
       </div>
       <div class="pass-link">
        <a href="#">Forgot password?</a>
       </div>
       <div class="field btn">
        <div class="btn-layer"></div>
        <input type="submit" value="login" id="loginbutton" />
       </div>
       <div class="signup-link">
        Not a member? <a href="">Signup now</a>
       </div>
      </form>
      <form action="" class="signup" id="registerForm">
       <div class="field">
        <input type="email" placeholder="Email Address" required id="email" name="email"</pre>
value=""/>
       </div>
       <div class="field">
        <input type="text" placeholder="Username" required id="username" name="username"
value=""/>
```

```
</div>
       <div class="field">
        <input type="password" placeholder="Password" required id="password" name="password"
value=""/>
       </div>
       <div class="field">
        <input type="password" placeholder="Confirm password" required id="confirmPassword"
name="confirmPassword" value=""/>
       </div>
       <div class="field">
        <input type="number" placeholder="Phone Number" required id="phoneNumber"
name="phoneNumber" value=""/>
       </div>
       <div class="field btn">
        <div class="btn-layer"></div>
        <input type="submit" value="Signup" id="registerButton" />
       </div>
      </form>
     </div>
   </div>
  </div>
  <span style="" id="message" class=""></span>
  k rel="stylesheet" href="//code.jquery.com/ui/1.13.2/themes/base/jquery-ui.css">
  <script src="https://code.jquery.com/jquery-3.6.1.js" integrity="sha256-</pre>
3zlB5s2uwoUzrXK3BT7AX3FyvojsraNFxCc2vC/7pNI=" crossorigin="anonymous"></script>
  <script src="https://code.jquery.com/ui/1.13.2/jquery-ui.js"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-validate/1.19.0/jquery.validate.min.js">
</script>
  <script src="{{url_for('static',filename='index.script.js')}}"></script>
 </body>
</html>
```

app.py

```
from flask import Flask, render_template, session, request, redirect,make_response
import ibm_db
from ibm_db2_connect import db2
import news
import json
app = Flask(__name__)
app.secret_key = "secret_key"
@app.route('/', methods=['GET', 'POST'])
def index():
  if session.get('logged_in'):
    return render_template('home.html')
  return render_template('index.html')
@app.route('/login',methods=['POST'])
def login():
  form_user = request.form['username']
  session['logged_in']=form_user
  return redirect('/')
@app.route('/loginvalidate',methods=['POST','GET'])
def loginvalidate():
  conn = db2.get_conn()
  data=request.get_json();
  form_user = data['email']
  form_password = data['password']
  sql = 'SELECT username from user WHERE mail=? and password=?'
  stmt = ibm_db.prepare(conn, sql)
  ibm_db.bind_param(stmt, 1, form_user)
```

```
ibm_db.bind_param(stmt, 2, form_password)
  ibm_db.execute(stmt)
  account = ibm_db.fetch_assoc(stmt)
  if account:
    response = make_response('success',200)
  else:
    response = make_response('failure',200)
  response.mimetype = "text/plain"
  return response
@app.route('/register',methods=['POST'])
def register():
  try:
    conn = db2.get_conn()
    data=request.get_json();
    form_user = data['username']
    form_password = data['password']
    form_mail = data['mail']
    form_phone = data['phone']
    sql = 'insert into user values(?,?,?,?)'
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt, 1, form_user)
    ibm_db.bind_param(stmt, 2, form_password)
    ibm_db.bind_param(stmt, 3, form_mail)
    ibm_db.bind_param(stmt, 4, form_phone)
    ibm_db.execute(stmt)
    response = make_response('success',200)
  except Exception as e:
    response = make_response('failure',200)
    print(e)
  return response
@app.route('/checkForExistingUser',methods=['POST'])
```

```
def checkForExistingUser():
  conn = db2.get_conn()
  data=request.get_json();
  email=data['email'];
  print(email)
  sql = 'SELECT mail from user WHERE mail=?'
  stmt = ibm_db.prepare(conn, sql)
  ibm_db.bind_param(stmt, 1, email)
  ibm_db.execute(stmt)
  account = ibm_db.fetch_assoc(stmt)
  print(account)
  if account:
     response = make_response('true',200)
  else:
    response = make_response('false',200)
  response.mimetype = "text/plain"
  return response
@app.route('/search',methods=['POST'])
def getNews():
  getRequests=request.get_json()
  articles=news.getNews(getRequests)
  # print(json.dumps(articles))
  response = make_response(json.dumps(articles),200)
  response.mimetype="text"
  return response
@app.route('/logout')
def logout():
  session.clear()
  return render_template('index.html')
```

```
if __name__ == '__main__':
    app.run(debug=True, port=5002)
```

config.py

DATABASE="<ypur db>"

HOSTNAME="<your hostname>"

PORT="<your port>"

SECURITY="SSL"

SSLServerCertificate="<your certificate>"

UID="<your UID>"

PWD="<your PASSWORD>"

API_KEY="<your API key>"

ibm_db2_connect.py

import ibm_db import config as c class db2:

connectionString="DATABASE={0};HOSTNAME={1};PORT={2};SECURITY={3};SSLServerCertificat e={4};UID={5};PWD={6}".format(c.DATABASE,c.HOSTNAME,c.PORT,c.SECURITY,c.SSLServerCertificate,c.UID,c.PWD)

```
conn = ibm_db.connect(connectionString,",")
def get_conn():
```

return db2.conn

news.py

```
import requests
from config import API_KEY

def getNews(query:dict):
    query_string="q="+query.get('q')

main_url="https://newsapi.org/v2/top-headlines?"
    final_url="{0}{1}&apiKey={2}".format(main_url,query_string,API_KEY)
    article=requests.get(final_url)
    return article.json()
```

GitHub & Project Demo Link

https://github.com/IBM-EPBL/IBM-Project-7918-1658902616

https://drive.google.com/file/d/1VYmvGOTYR_xTlFWAG6rMzMFXIcTCn37N/view?usp=sharing https://drive.google.com/drive/folders/1yNjmgPDJBBcfI2kXsc7_edeVzBLpWIRy?usp=sharing