

News Tracker Application

Submitted by

PNT2022TMID04885

Thamarikanna G-737819ITR10

Vani sridhar C-737819ITR102

Varshini P-737819ITR103

Vasanth T-737819ITR104

TABLE OF CONTENT

1. INTRODUCTION

1.1 Project Overview 4

1.2 Purpose 4

2. LITERATURE SURVEY

2.1 Existing problem 5

2.2 References 5

2.3 Problem Statement Definition 6

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas 7

3.2 Ideation & Brainstorming 8

3.3 Proposed Solution 8

3.4 Problem Solution fit 10

4. REQUIREMENT ANALYSIS

4.1 Functional requirements 12

4.2 Non-Functional requirements 13

5. PROJECT DESIGN

5.1 Data Flow Diagrams 15

5.2 Solution & Technical Architecture 16

5.3 User Stories 18

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation 20

6.2 Sprint Delivery Schedule 21

| | |
|--|-----------|
| 7. CODING & SOLUTIONING | |
| 7.1 Feature 1 | 22 |
| 7.2 Feature 2 | 29 |
| 7.3 Database Schema | 36 |
| 8. ADVANTAGES & DISADVANTAGES | 37 |
| 9. CONCLUSION | 38 |
| 10. FUTURE SCOPE | 39 |
| 11. APPENDIX | |
| GitHub | 40 |
| Project Demo Link | 40 |

CHAPTER 1

INTRODUCTION

1.1 PROJECT OVERVIEW

Flask is a python framework provides the environment to create web application using python with the knowledge of HTML and CSS. We work with different modules. Application programming interface (API) is act as a interface between different applications.

Using IBM cloud make the application accessible from anywhere. In difficult times like corona or in remote places getting newspaper is difficult thing. So, this application makes it simple with the availability of network. Also is helps user to choose their interested domain and also allows them to search about the particular news.

1.2 PURPOSE

The purpose of this application are listed below:

- To help user to get news even in remote places or in lockdown period.
- Helps to reduce the cost required to read news. And encourage the user to read news.
- To provide the option for the user to choose their interested domain.
- To provide search option for the user to search for the needed information.

CHAPTER 2

LITERATURE SURVEY

2.1 EXISTING PROBLEM

There is a lot of time consumption to read the relevant news that we need to read without categorizing. with the help of categorizing we are able to read the news which we need. only read what need will save time. unable to follow some big publishers and their current news feed.

2.2 REFERENCE

- 1] https://www.ripublication.com/ijaer18/ijaerv13n11_78.pdf
- 2] (PDF) Exploring mobile news reading interactions for news app personalisation (researchgate.net)
- 3] (PDF) Topic Detection and Tracking in News Articles (researchgate.net)
- 4] (PDF) Implementing a Mobile Application News Tool for Disseminating Messages and Events of AlBuraimi University College
- 5] (PDF) Following the Fed with a News Tracker (researchgate.net)

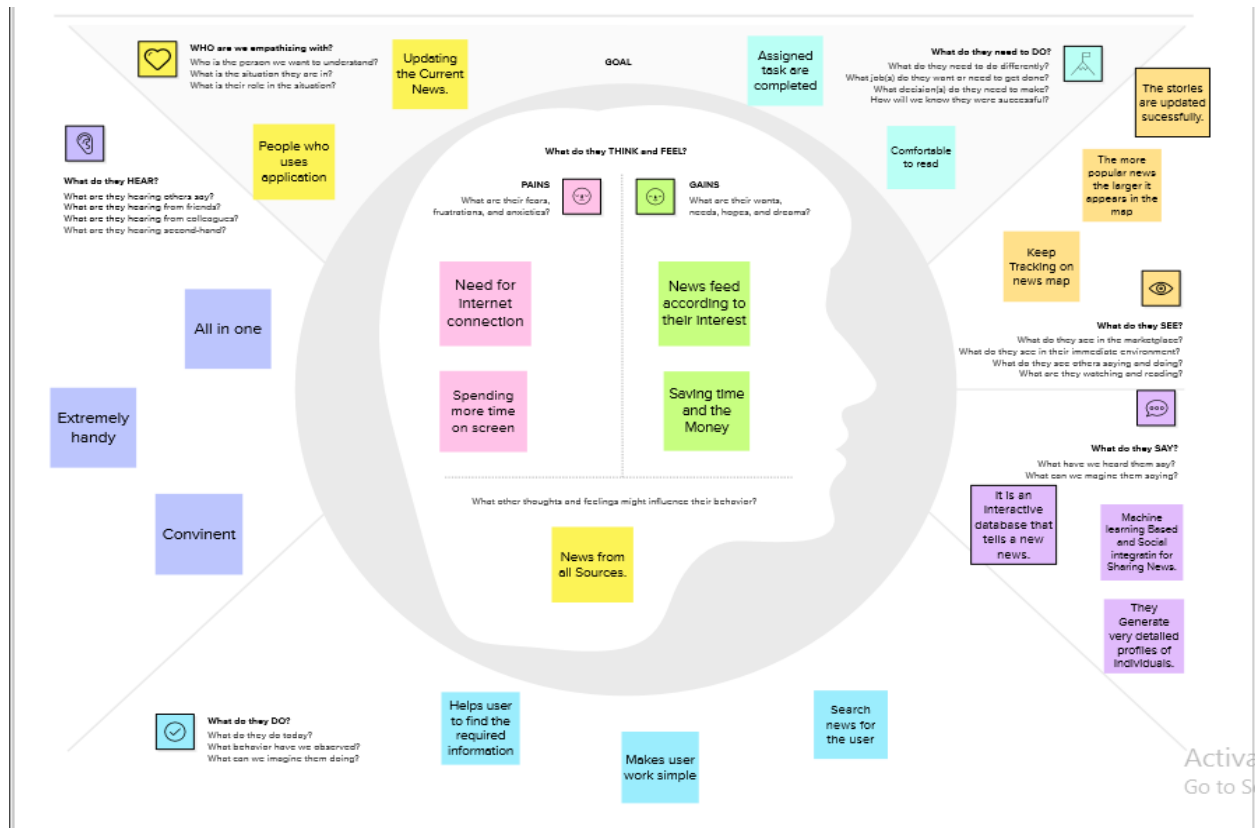
2.3 PROBLEM STATEMENT DEFINITION

News reading increases peoples knowledge. But now a days news reading habbit reduced due to increase of technology and not getting proper source for reading news in pandemic times. So this application helps the user to read the news anywhere the want and they no need to carry the newspaper everywhere. The application will be user friendly so it encourages the user to read news.

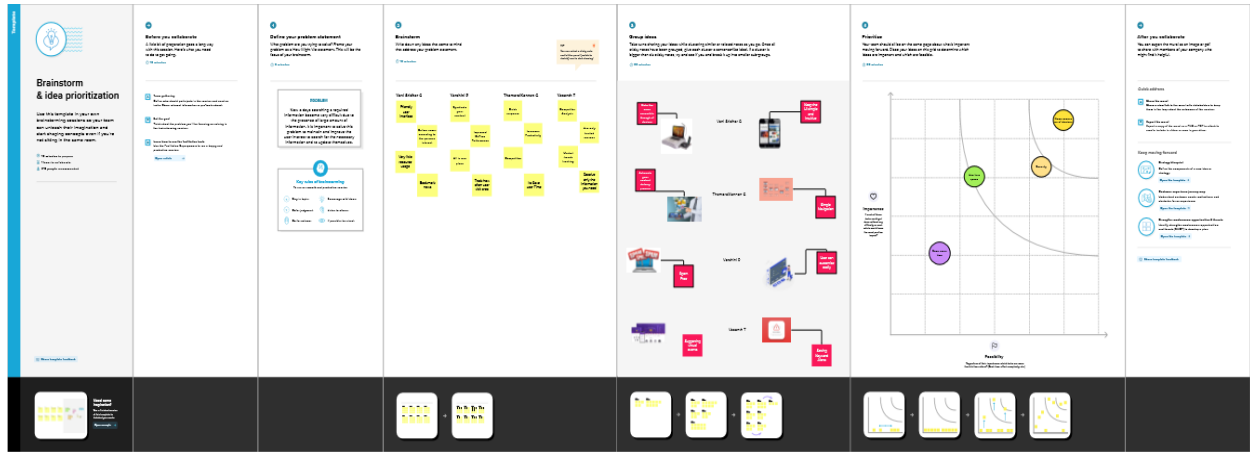
CHAPTER 3

IDEATION & PROPOSED SOLUTION

3.1 EMPATHY MAP CANVAS



3.2 IDEATION & BRAINSTORMING



3.3 PROPOSED SOLUTION

| S.No. | Proposals | Description |
|-------|----------------------|---|
| 1 | Problem Statement | Now a days searching a required information become very difficult due to the presence of large amount of information. It is important to solve this problem to maintain and improve the user interest to search for the necessary information and to update themselves. And also user needs to buy the newspaper or have to carry the newspaper everywhere. |
| 2 | Solution description | The application to be developed should be accessible from anywhere and any devices that are connected to the internet. The application should allow the user to search for the specific news that user needs to know. |

| | | |
|---|-----------------------------|---|
| 3 | Uniqueness | There are many applications that will provide unwanted messages along with required messages. Our work is develop a cloud application that can be accessed anywhere and it should allow the user to search for the information. |
| 4 | Social Impact | In remote areas or in critical times, it is not possible to read the newspaper. But we can able to use app instead. |
| 5 | Business Model | Right now the application is profitless but in future we might add an option of premium plans for advanced learning. |
| 6 | Scalability of the Solution | Compare to normal newspapers this app provide more information. And it provides news about other countries or other regions. |

3.4 PROBLEM SOLUTION FIT

| | | | | |
|------------------------|---|---|--|---------------------------|
| Define CS, fit into CC | 1. CUSTOMER SEGMENT(S) CS <ul style="list-style-type: none"> ● Marketing people ● General people ● Digital makeover lover | 6. CUSTOMER CONSTRAINTS CC <ul style="list-style-type: none"> ● Account security ? ● Ability to adapt to different orientation ? | 5. AVAILABLE SOLUTIONS AS <p>When a user is not online due to some reason should have to access to the internet. Whenever the user is online the news content is downloaded in the cache memory of the app, this is how a user can access to the content offline. The option of filtering the content based on different category</p> | Explore AS, differentiate |
|------------------------|---|---|--|---------------------------|

| | | | | |
|--|---|--|--|--|
| Focus on J&P, tap into BE, understand RC | 2. JOBS-TO-BE-DONE / PROBLEMS <ul style="list-style-type: none"> ● decide what, where and when to change for better performance ● want to keep financial details private and prevent leakage | 9. PROBLEM ROOT CAUSE RC <p>At this digital age, people are captivated by smartphones or other mobile devices. They want all necessitous info to be found at their fingertips.</p> | 7. BEHAVIOUR BE <p>People need real-time news and updates immediately so the news app has a very bright future. A news app that provides a dynamic experience will get a huge success.</p> | Focus on J&P, tap into BE, understand RC |
|--|---|--|--|--|

Active Wi
Go to settings

| | | |
|---|--|---|
| <p>3. TRIGGERS News app triggers to describe automatically specific news or event faster and more targeted.</p> <hr/> <p>4. EMOTIONS: BEFORE / AFTER Before – User can't get news up to date and wont be able to react to those news After – User can post their comments and find categories and individual articles</p> | <p>10. YOUR SOLUTION</p> <p>Evident that developing a news app helps you stand out among all competitors. The aforesaid aspects let a news app promote an online magazine and as a result, the app reaches out and attracts many people from all across the world.</p> | <p>8. CHANNELS of BEHAVIOUR</p> <p>ONLINE User can access all kind of news in many forms</p> <p>OFFLINE User can view news in offline mode</p> |
|---|--|---|

CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|--|
| FR-1 | User Registration | Registration through Form Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email Confirmation via OTP |
| FR-3 | User login | Login through browser directly by entering username and password Login through app |
| FR-4 | User interaction | Done through user interface between client and server View the related news by subscribed or requested page |
| FR-5 | Tools | Application have tools to share this news in social networks |

4.2 NON-FUNCTIONAL REQUIREMENTS

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | Usability is a measure of how well a specific user in a specific context can use a product/design to achieve a defined goal effectively, efficiently and satisfactorily. Designers usually measure a design's usability throughout the development process—from wireframes to the final deliverable—to ensure maximum usability. |
| NFR-2 | Security | Assuring all data inside the system or its part will be protected against malware attacks or unauthorized access. |
| NFR-3 | Reliability | The probability that a product, system, or service will perform its intended function adequately for a specified period of time, or will operate in a defined environment without failure. The most important components of this definition must be clearly understood to fully know how reliability in a product or service is established |
| NFR-4 | Performance | Performance is the core non-functional requirements no system can do without. It defines how fast a software system or a particular piece of it responds to certain users actions under a certain workload. In most cases, this metric explains how long a user must wait before the target operation happens (the page renders, a transaction is processed, etc.) given the overall number of users at the moment. |

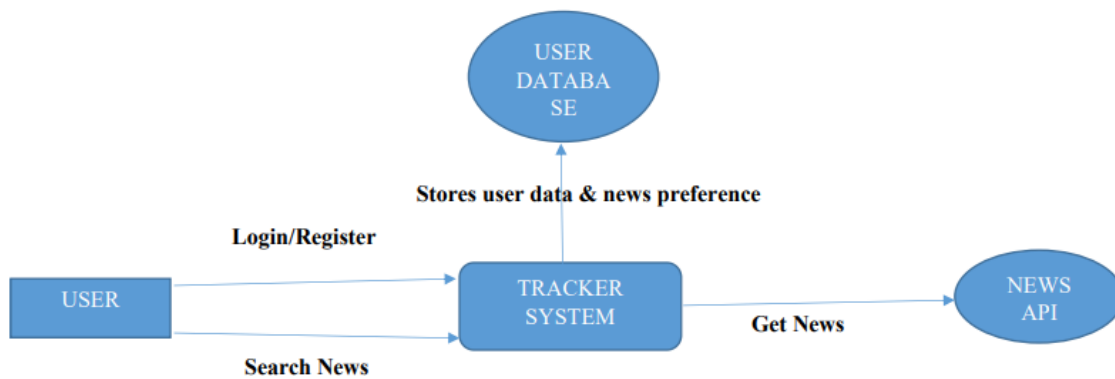
| | | |
|-------|--------------|---|
| NFR-5 | Availability | Availability describes how likely the system is accessible to a user at a given point in time. While it can be expressed as an expected percentage of successful requests, you may also define it as a percentage of time the system is accessible for operation during some time period. For instance, the system may be available 98 percent of the time during a month. Availability is perhaps the most business critical requirement, but to define it, you also must have estimations for reliability and maintainability |
| NFR-6 | Scalability | Scalability assesses the highest workloads under which the system will still meet the performance requirements. There are two ways to enable your system scale as the workloads get higher: horizontal and vertical scaling. |

CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAM

A Data Flow Diagram is a traditional visual representation of the information flows within a system. It shows how data enters and leaves the system, what changes the information, and where data is stored.



5.2 SOLUTION & TECHNICAL ARCHITECTURE

Technical Architecture:

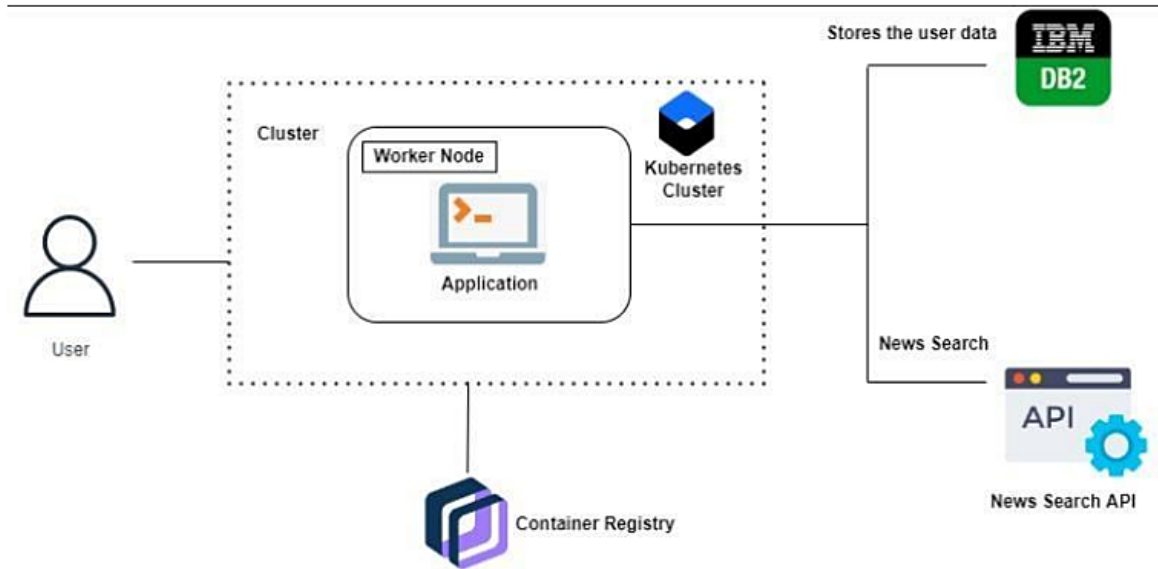


Table-1: Components and Technologies:

| S. No | Component | Description | Technology |
|-------|---------------------|--|---------------------------------|
| 1 | User Interface | How user interacts with application, Ex. Mobile App, Chatbot | HTML, CSS, Python, MySQL, Flask |
| 2 | Application Logic-1 | Logic for a process in the application | Python |
| 3 | Application Logic-2 | Logic for a process in the application | SendGrid |

| | | | |
|---|---------------------|--|------------------------|
| 4 | Application Logic-3 | Logic for a process in the application | IBM Watson Application |
| 5 | Database | Data Type, Configuration etc. | MySQL |
| 6 | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloud |
| 7 | File Storage | File storage requirements | IBM Object Storage |

Table-2: Application characteristics:

| S. No | Characteristics | Description | Technology |
|-------|-------------------------|---|-----------------------|
| 1 | Open-source frameworks | Microweb framework written in Python | Flask |
| 2 | Security implementation | A set of cryptographic hash function | SHA-256 |
| 3 | Scalable Architecture | Kubernetes is a open source container orchestration system and management | Kubernetes |
| 4 | Availability | To customize settings for the docker CLI. The configuration file uses JSON formatting. | Docker CLI |
| 5 | Performance | The performance will be high because there will be no network traffics in the application | Kubernetes is cluster |

5.3 USER STORIES

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|-----------------------------------|-------------------------------|-------------------|---|--|----------|----------|
| Customer (Mobile user / Web User) | Registration | USN-1 | User can register for the application by entering my email, password. | I can access my account / dashboard | High | Sprint-1 |
| | | USN-2 | User will receive confirmation email once he/she have registered for the application. | I can receive confirmation email & click confirm | High | Sprint-1 |
| | | USN-3 | User can register for the application through Gmail | | Low | Sprint-1 |
| | Login | USN-4 | User can log into the application by entering email & password | | High | Sprint-1 |
| | Dashboard | USN-5 | User can enter the interests and choices of news that he want to see for the first | | High | Sprint-2 |

| | | | | | | |
|-------------------------|--------------------------|--------|--|--|--------|------------|
| | | | time in dashboard. | | | |
| | | USN-6 | User can go through the feed of news filtered according to their wish. | | High | Sprint-3 |
| | | USN-7 | User can log out of his account in settings. | I can click confirm to log out and end the session | High | Sprint-3 |
| | Settings | USN-8 | User can update their interests and choice in account settings. | | Medium | Sprint - 4 |
| Customer Care Executive | Chat Bot / Query Section | USN-9 | Solve issues brought up by client | | High | Sprint - 4 |
| Administrator | | USN-10 | Roll out updates and bug fix | | High | Sprint - 4 |

CHAPTER 6

PROJECT PLANNING & SCHEDULING

6.1 SPRINT PLANNING & ESTIMATION

Sprint-1:

Registration:

The user can register to by using their username and password. It will be stored in IBM database.

MySQL Database Connection :

MySQL database is connected to the application. the database has table "user". It has id, username and password.

categories:

The user can search for a perticular news that they need to read using search option.

Login:

User can login to application by using the password and eamil.

Sprint-2

Dashboard:

User can select the news category that they want to view in the dashboard. And can search the news they needed.

Dashboard User Interface:

Administrator designing the user interface.

Sprint-3

IBM cloud Connection:

Our application is connected to the cloud.

Sprint-4

Chat bot / Query:

The user can know the information about our application using bot.

6.2 SPRINT DELIVERY SCHEDULE

| Sprint | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|----------|--------------------|----------|-------------------|---------------------------|---|------------------------------|
| Sprint-1 | 20 | 6 Days | 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 |

CHAPTER 7

CODING & SOLUTIONING

7.1 FEATURE 1

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>Home</title>

  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/css/bootstrap.min.css"
integrity="sha384-
MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFOJwJ8ERdknLPMO"
crossorigin="anonymous">
  <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-
q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.3/dist/umd/popper.min.js"
integrity="sha384-
ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAAdn689aCwoqBBIjSnjAK/l8WvCWPIpM49"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/js/bootstrap.min.js"
integrity="sha384-
ChfqquxZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"
crossorigin="anonymous"></script>

  <script>
    function getnews(){
      fetch("https://newsapi.org/v2/top-

```

```

headlines?category=general&apiKey=cdc40c3ada3e44b9b096688f732b4116")
    .then(a=>a.json())
    .then(response =>{
        for(var i=0; i<response.articles.length; i++){
            document.getElementById("output").innerHTML+="
```

```

<div class="collapse navbar-collapse" id="navbarSupportedContent">
  <ul class="navbar-nav mr-auto">
    <li class="nav-item active">
      <a class="nav-link active" href="home" style="font-weight: 500;">Home</a>
    </li>
    <li class="nav-item dropdown">
      <a class="nav-link dropdown-toggle active" style="font-weight: 500;" href="#"
id="navbarDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-
expanded="false">
        Category
      </a>
      <div class="dropdown-menu" aria-labelledby="navbarDropdown">
        <a class="dropdown-item" href="entertainment">Entertainment</a>
        <a class="dropdown-item" href="sports">Sports</a>
        <a class="dropdown-item" href="technology">Technology</a>
        <a class="dropdown-item" href="science">Science</a>
        <a class="dropdown-item" href="health">Health</a>
        <a class="dropdown-item" href="business">Business</a>
      </div>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="/logout" style="color: black;font-weight: 500;">Logout
<span class="sr-only">(current)</span></a>
    </li>
  </ul>
  <form class="form-inline my-2 my-lg-0" action="/search" method = "POST">
    <input class="form-control mr-sm-2" type="search" placeholder="Search" aria-
label="Search" name="search">
    <button class="btn btn-outline-success my-2 my-sm-0" type="submit">Search</button>
  </form>
</div>
</nav>

<div id="output"></div>
</body>
</html>

```


Index.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>Welome</title>

  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/css/bootstrap.min.css"
integrity="sha384-
MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFOJwJ8ERdknLPMO"
crossorigin="anonymous">
  <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-
q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.3/dist/umd/popper.min.js"
integrity="sha384-
ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAAdn689aCwoqbBJiSnjAK/l8WvCWPIpM49"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/js/bootstrap.min.js"
integrity="sha384-
ChfqquxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"
crossorigin="anonymous"></script>

  <style>
    body{
      background-image: url('https://cvs-images.s3.jp-tok.cloud-object-
storage.appdomain.cloud/bg8.jpg');
      background-position: center center;
      background-repeat: no-repeat;
      background-attachment: fixed;
      background-size: cover;
      background-color: #000033;
    }

```

```

</style>
</head>
<body>
    <nav class="navbar navbar-expand-lg navbar-light" style="background-color: #e3f2fd;
margin-bottom: 15px;">
        <a class="navbar-brand" href="/" style="color: red; font-weight: bold;">News App</a>
        <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>

        <div class="collapse navbar-collapse" id="navbarSupportedContent">
            <ul class="navbar-nav mr-auto">
                <li class="nav-item">
                    <a class="nav-link" href="/login" style="color: black;font-weight: 500;">Login <span
class="sr-only">(current)</span></a>
                </li>
                <li class="nav-item">
                    <a class="nav-link" href="/register" style="color: black;font-weight:
500;">Register</a>
                </li>
            </ul>
        </div>
    </nav>

    <div class="container-fluid">
        <div class="row">
            <div class="col-md-12 mt-3 mb-3">
                <h1 class="text-center" style="color: white; margin-top: 20%;">Welcom To News
App!!</h1>
            </div>
        </div>
    </div>
</body>
</html>

```

app.py

```

from flask import Flask,render_template, request, jsonify, session, redirect
from flask_mysqlldb import MySQL
from utils import category, find
from flask import cli

```

```

app = Flask(__name__)
app.secret_key = "vani"

```

```

#mysql
app.config['MYSQL_HOST'] = 'localhost'
app.config['MYSQL_USER'] = 'root'
app.config['MYSQL_PASSWORD'] = ""
app.config['MYSQL_DB'] = 'flask'
mysql = MySQL(app)

```

```

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

```

```

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

```

```

@app.route("/log_res", methods = ['POST', 'GET'])
def log_res():
    if request.method == 'GET':
        msg = "Invalid Credentials!!"
        return render_template("result.html", msg = msg)

    if request.method == 'POST':
        try:
            email = request.form['email']
            password = request.form['password']
            cursor = mysql.connection.cursor()

```

```

        sql = "SELECT * FROM USER WHERE EMAIL=%s AND PASSWORD=%s",(email,
password)
        cursor.execute(sql)
        data = cursor.fetchone()
        dbemail = data[1]
        dbpassword = data[2]
        if password == dbpassword:
            session['status']="ok"
            return render_template("home.html")
        else:
            msg = "Invalid Credentials!!"
            return render_template("result.html", msg = msg)

    except TypeError as e:
        msg = "Invalid Credentials!!"
        return render_template("result.html", msg = msg)

@app.route('/logout')
def logout():
    if 'status' in session:
        session.pop('status',None)
        msg = "logout successful!!"
        return render_template("result.html", msg = msg)
    else:
        msg = "User already logged out!!"
        return render_template("result.html", msg = msg)

@app.route('/home')
def getVariable():
    if 'status' in session:
        return render_template("home.html")
    else:
        msg = "Please Login!!"
        return render_template("result.html", msg = msg)

if __name__ == '__main__':
    app.run(port='90', debug=True)

```

7.2 FEATURE 2

Along with the home.html, index.html we added news.html, it provides user to search for particular news and to choose categories that they want to see. And It has IBM chat bot. And Register.html is provided to add new users to our database.

News.html

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />

    <!-- Bootstrap CSS 4-->
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/css/bootstrap.min.css"
integrity="sha384-
MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFOJwJ8ERdknLPMO"
crossorigin="anonymous">
    <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-
q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.3/dist/umd/popper.min.js"
integrity="sha384-
ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAAdn689aCwoqBjJiSnjAK/l8WvCWPIpM49"
crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/js/bootstrap.min.js"
integrity="sha384-
ChfqquxZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"
crossorigin="anonymous"></script>

    <!-- Bootstrap CSS 5-->
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css"
rel="stylesheet"
```

```

    integrity="sha384-
1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3"
    crossorigin="anonymous"
  />

<title>Latest News Headlines</title>
</head>
<body>
  <div class="container-fluid" style="background-color: #00a3a3;">
    <div class="row">
      <div class="col-md-12 mt-3 mb-3">
        <h2 class="text-center" style="color: white;">{{ cat }}</h2>
      </div>
    </div>
  </div>
  <nav class="navbar navbar-expand-lg navbar-light" style="background-color: #e3f2fd;
margin-bottom: 15px;">
    <a class="navbar-brand" href="/" style="color: red; font-weight: bold;">News App</a>
    <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarSupportedContent">
      <ul class="navbar-nav mr-auto">
        <li class="nav-item active">
          <a class="nav-link active" href="home" style="font-weight: 500;">Home</a>
        </li>
        <li class="nav-item dropdown">
          <a class="nav-link dropdown-toggle active" style="font-weight: 500;" href="#"
id="navbarDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-
expanded="false">
            Category
          </a>
          <div class="dropdown-menu" aria-labelledby="navbarDropdown">
            <a class="dropdown-item" href="entertainment">Entertainment</a>
            <a class="dropdown-item" href="sports">Sports</a>

```

```

    <a class="dropdown-item" href="technology">Technology</a>
    <a class="dropdown-item" href="science">Science</a>
    <a class="dropdown-item" href="health">Health</a>
    <a class="dropdown-item" href="business">Business</a>
  </div>
</li>
<li class="nav-item">
  <a class="nav-link" href="/logout" style="color: black;font-weight: 500;">Logout <span
class="sr-only">(current)</span></a>
</li>
</ul>
<form class="form-inline my-2 my-lg-0" action="/search" method = "POST">
  <input class="form-control mr-sm-2" type="search" placeholder="Search" aria-
label="Search" name="search">
  <button class="btn btn-outline-success my-2 my-sm-0" type="submit">Search</button>
</form>
</div>
</nav>

<div class="row mt-5">
  <div class="col-md-2"></div>
  <div class="col-md-8">
    <div class="row">
      {% for news in news_articles %}
      <div class="col-md-4 mb-5">
        <div class="card" style="width: 18rem">
          
          <div class="card-body">
            <h5 class="card-title">{{ news.title }}</h5>
            <p class="card-text">{{ news.description }}</p>
            <a href="{{ news.url }}" class="btn btn-primary">Read More</a>
          </div>
        </div>
      </div>
      {% endfor %}
    </div>
  </div>
</div>

```

```

    <div class="col-md-2"></div>
</div>
<!-- Bootstrap Bundle with Popper -->
<script
  src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"
  integrity="sha384-
ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p"
  crossorigin="anonymous"
></script>

<script>
window.watsonAssistantChatOptions = {
  integrationID: "380464dc-d472-4156-bdf1-3ba4aca9e386", // The ID of this integration.
  region: "jp-tok", // The region your integration is hosted in.
  serviceInstanceID: "5c2a539f-09e4-4815-bfe8-33e934287400", // The ID of your service
instance.
  onLoad: function(instance) { instance.render(); }
};
setTimeout(function(){
  const t=document.createElement('script');
  t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";
  document.head.appendChild(t);
});
</script>
</body>
</html>

```

Register.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>Register</title>

```



```

<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/css/bootstrap.min.css"
integrity="sha384-
MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFOJwJ8ERdknLPMO"
crossorigin="anonymous">
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-
q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.3/dist/umd/popper.min.js"
integrity="sha384-
ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAAdn689aCwoqBjSiSnjAK/l8WvCWPIpM49"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@4.1.3/dist/js/bootstrap.min.js"
integrity="sha384-
ChfqquxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"
crossorigin="anonymous"></script>

```

```

<style>
h3{
  color: antiquewhite;
}
#form{
  margin: 10%;
  width: 30%;
  height:fit-content;
  color:antiquewhite;
  background-color: #202020;
  border-style: solid;
  border-radius: 10px;
  padding: 10px;
  text-align: left;
  opacity: 0.9;
}

#ele{
  padding: 10px;
  color: rgb(250, 248, 245);

```

```

        font-weight: bold;
    }

    #button1{
        font-weight: bold;
        color: #fbfbfd;
    }

    #button1:hover{
        color: #000033;
    }

    h3{
        color: antiquewhite;
    }

    body{
        background-image: url('static/bg2.jpg');
        background-position: center center;
        background-repeat: no-repeat;
        background-attachment: fixed;
        background-size: cover;
        background-color: #000033;
    }
</style>
</head>
<body>
    <nav class="navbar navbar-expand-lg navbar-light" style="background-color: #e3f2fd;
margin-bottom: 15px;">
        <a class="navbar-brand" href="/" style="color: red; font-weight: bold;">News App</a>
        <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>
        <div class="collapse navbar-collapse" id="navbarSupportedContent">

```

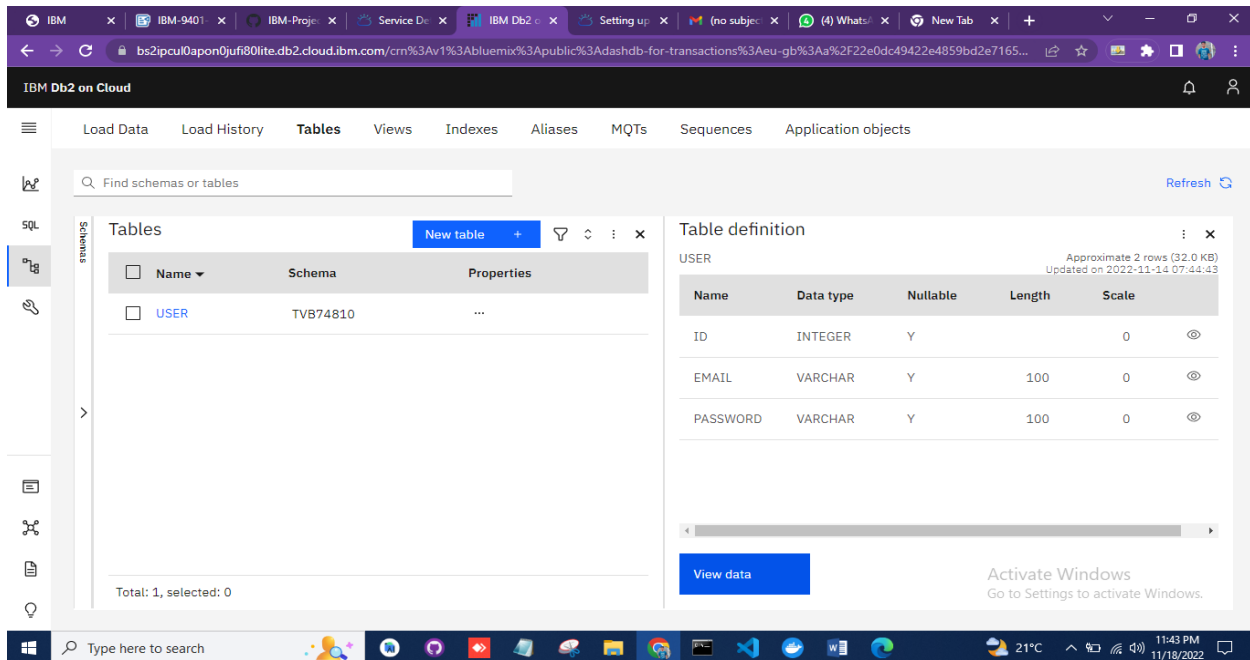
```

    <ul class="navbar-nav mr-auto">
      <li class="nav-item">
        <a class="nav-link" href="/login" style="color: black;font-weight: 500;">Login <span
class="sr-only">(current)</span></a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="/register" style="color: black;font-weight:
500;">Register</a>
      </li>
    </ul>
  </div>
</nav>
<center>
  <form id="form" action="/reg_res" method = "POST">
    <div class="form-group">
      <label for="exampleInputName1" id="ele">Email Address</label>
      <input type="email" class="form-control" id="exampleInputName1" name="email"
placeholder="Enter Your Email">
      <small id="emailHelp" class="form-text" style="font-weight: 600;">We'll never share
your email with anyone else.</small>
    </div>
    <div class="form-group">
      <label for="exampleInputEmail1" id="ele">Password</label>
      <input type="password" class="form-control" id="exampleInputEmail1" name =
"password" aria-describedby="emailHelp" placeholder="Enter Your Password">
    </div>
    <center><button type="submit" class="btn btn-outline-light"
id="button1">Submit</button></center>
  </form>
</center>
</body>
</html>

```

7.3 DATABASE SCHEMA

The database has table "user". The user has three columns Id, Email and Password.



IBM Db2 on Cloud

Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

Find schemas or tables Refresh

Tables New table +

| Name | Schema | Properties |
|------|----------|------------|
| USER | TVB74810 | ... |

Total: 1, selected: 0

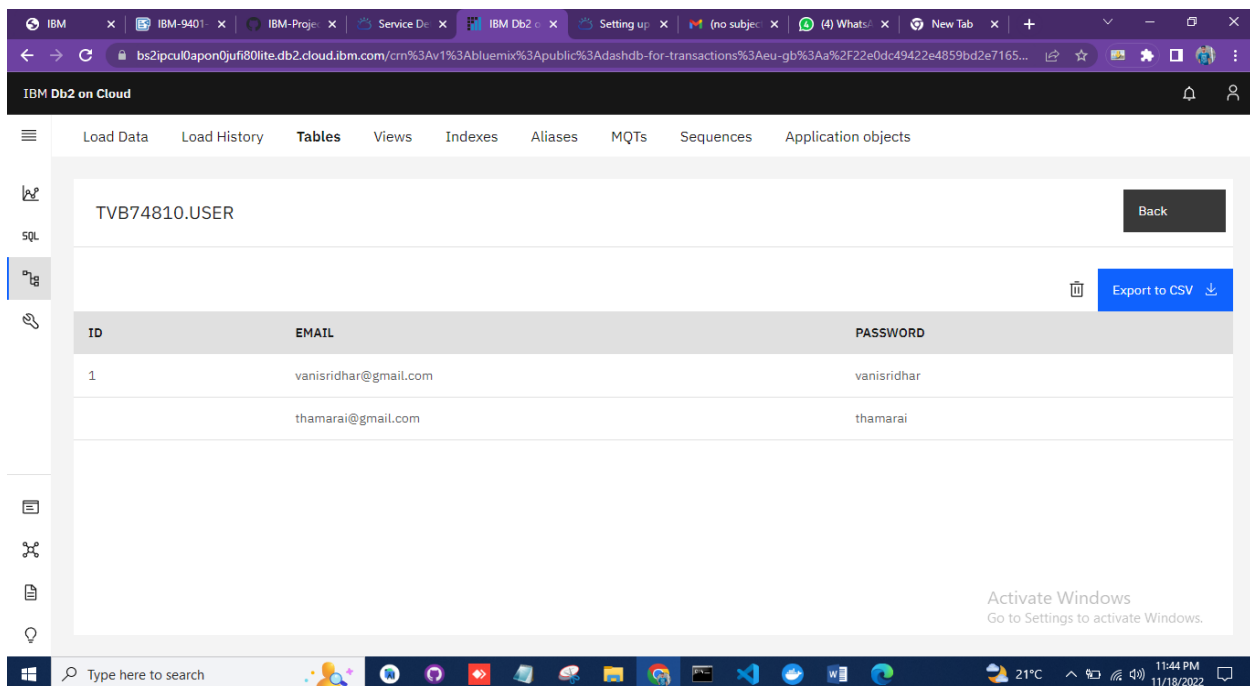
Table definition

USER
Approximate 2 rows (32.0 KB)
Updated on 2022-11-14 07:44:43

| Name | Data type | Nullable | Length | Scale |
|----------|-----------|----------|--------|-------|
| ID | INTEGER | Y | | 0 |
| EMAIL | VARCHAR | Y | 100 | 0 |
| PASSWORD | VARCHAR | Y | 100 | 0 |

View data

Activate Windows
Go to Settings to activate Windows.



IBM Db2 on Cloud

Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

TVB74810.USER Back

Export to CSV

| ID | EMAIL | PASSWORD |
|----|-----------------------|-------------|
| 1 | vanisridhar@gmail.com | vanisridhar |
| | thamarai@gmail.com | thamarai |

Activate Windows
Go to Settings to activate Windows.

CHAPTER 8

ADVANTAGES AND DISADVANTAGES

ADVANTAGES

The advantages of this application are:

- We can assess this application from anywhere.
- The user can get the news even in lockdown situations.
- The user can get the news even in remote areas.
- It reduces the cost of reading newspaper, so it helps in encouraging the user to read news.
- The user can choose the category which they wish to read.
- This application provides the search option, so that user can search the needed news.
- No need to download this application.

DISADVANTAGES

The disadvantage of this application are:

- There should be proper internet connectivity.
- The user should have smart phone or laptop.
- Reduced speed compare to the application that is hosted on a local server.
- Restricted Functionality.

CHAPTER 9

CONCLUSION

Hence this application satisfies the user and encourage them to study the news. They can able to read the news from compact mobile phones to so they no need to carry the newspapers to every place they go. With good interface the users are satisfied. By collecting the requirements, the users are provided the news categories that they can choose to need. And also the search option is provided for user to search for the particular news they need.

This application is reliable with good user interface. The application is secure with the Secure Sockets Layer. The use of IBM cloud makes the application available in all places including remote areas with the presence of good internet facility.

There is no cost for reading this application and user no need to download the application. It is very user friendly and it is like mobile newspaper (i.e it is very compact to use).

CHAPTER 10

FUTURE SCOPE

Providing the facility to the user to choose the country the need to know. Locating the location of the user and providing the news based on his/her location. And changing of news data if the users moves from one location to other. And providing the facility to the user to read the news offline. The security of the user data can be improved. The user can be verified before registering.

CHAPTER 11

APPENDIX

GITHUB LINK:

<https://github.com/IBM-EPBL/IBM-Project-9401-1659002289>

PROJECT DEMO LINK:

https://drive.google.com/file/d/1tLbHiLVbpWEUIEsu7BPPokouG_W5VuDG/view?usp=share_link