# NEWS TRACKER APPPLICATION

USING CLOUD

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

BACHELOR OF ENGINEERING

IN

# COMPUTER SCIENCE AND ENGINEERING

***Submitted by***

Team ID: PNT2022TMID41074

KAVIYARASAN.K 612719CSE035

GOWRIMANOKARAN.S 612719CSE022

SANJAY.M 612719CSE055

JAIPRAKASH.S 612719CSE030



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**KAVERY ENGINEERING COLLEGE, SALEM-51**

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**BONAFIDE CERTIFICATE**

Certified that this project report ”**NEWS TRACKER APPLICATION”** is the bonafide record work done by **Mr K.KAVIYARASAN**(612719CSE035), **Mr S.GOWRIMANOKARAN** (612719CSE022), **Ms M.SANJAY**(612719CSE055), **Mr S.JAIPRAKASH**(612719CSE030) for **IBM-NALAIYATHIRAN** in **VII** semester of **B.E.,** degree course **in Computer Science and Engineering** branch during the academic year of 2022 - 2023.

**Staff-In charge Evaluator**

**M.UMAPATHY SAI PRIYA**

**Head of the Department Dr.BALAMURUGAN**

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**K.KAVIYARASAN**

**S.GOWRIMANOKARAN**

**M.SANJAY**

**S.JAIPRAKASH**

**ABSTRACT**

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

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Source Code GitHub & Project Demo Link

**News Tracker Application**

# INTRODUCTION

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

# Project overview

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

# Purpose

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

# 

# LITERATURE SURVEY

* 1. **Existing problem**

we often feel we need more than 24 hrs. a day to cope up with everything we have in our schedule. Well, that's not possible but reducing the time by changing the conventional method of reading news can help.

# References

Like articles, websites, blogs.

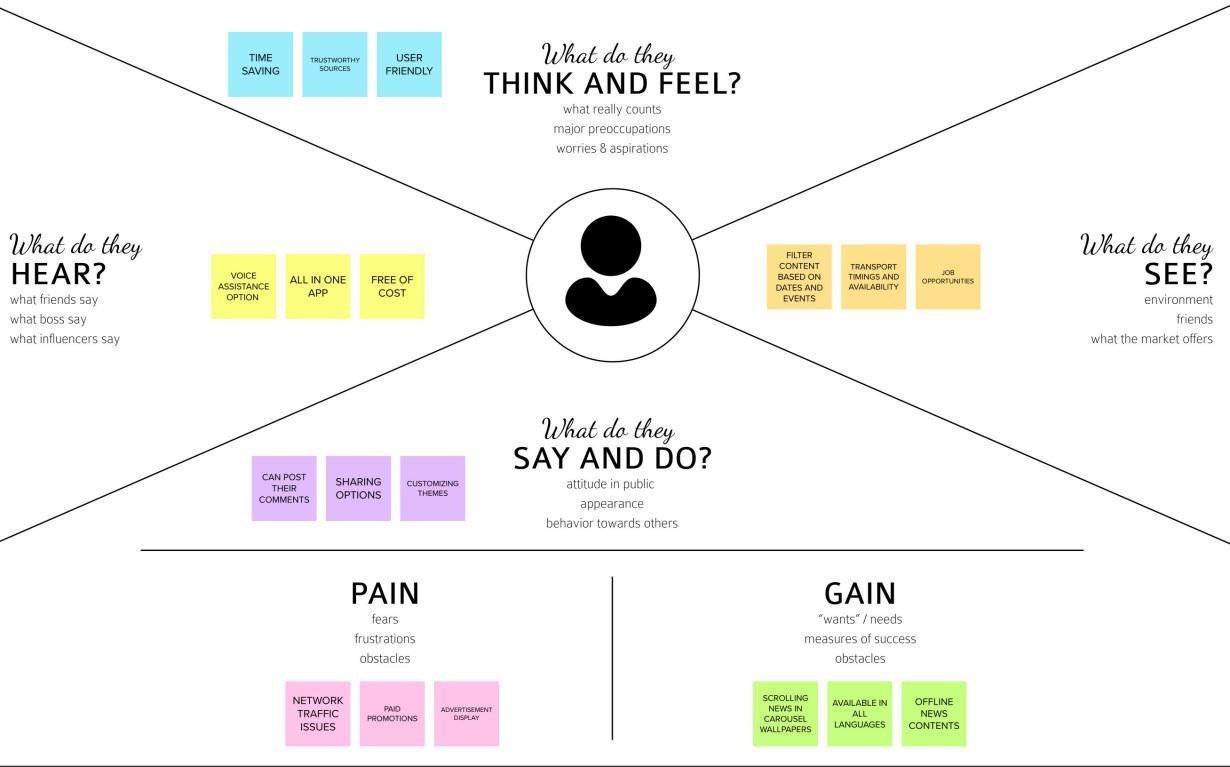
[**https://techvidvan.com/tutorials/android-news-app-project-source-code/**](https://techvidvan.com/tutorials/android-news-app-project-source-code/)[**https://www.ripublication.com/**](https://www.ripublication.com/)

# Problem Statement Definition

* The manual system of newspaper involves all the clerical work, which is a cumbersome and complicated job. In today's fast life it is difficult for users to get news at their move.
* The user needs a way to organize the news on daily basis so that he can cope up with daily events inhis tight schedule.
* The user wants to read news only about particular topics so that he can be informed about his interest.
* The user wants to get informed from only certified news outlets .
* The user needs a way to search about the news on topics he wants to.
* The user wants to know the news about his surrounding using GPS location.

# IDEATION & PROPOSED SOLUTION

* 1. **Empathy Map Canvas**



# Ideation & Brainstorming

**K.KAVIYARASAN S.GOWRIMANOKARAN**

|  |  |  |
| --- | --- | --- |
| **CREATE**  **USER**  **ACCOUT** | **SIMPLE**  **AND INTRACTIVE**  **UI** | **TRANSPORT**  **TIMINGS** |
| **CONSUMPTION**  **OF DATA IS LESS** | **BOOKMARK**  **NEWS** | **RECOMMENDED**  **NEWS WILL BE**  **DISPLAYED** |
| **PAID PROMOTIONS** | **NEWS**  **PROVIDED**  **FROM**  **TRUSTED**  **SOURCES** | **TRACK AS**  **MANY WEBSITE**  **AS YOU WANT** |

|  |  |  |
| --- | --- | --- |
| **PROVIDES**  **JOB DESCRIPTION** | **IMPLEMENTATION**  **WILL BE SECURE** | **THOUGHT**  **FOR THE DAY**  **DISPLAYED ON APP FOR**  **POSITIVITY** |
| **VIDEO COVERAGE**  **WILL BE PROVIDED** | **TIPS FOR STUDENTS**  **TO IMPROVE** | **USERS CAN**  **POST**  **COMMENTS** |
| **ALL OS**  **SUPPORTED** | **PUSH**  **NOTIFICATION** | **TECH GADGET NEWS** |

**SANJAY.S JAYAPRAKASH.S**

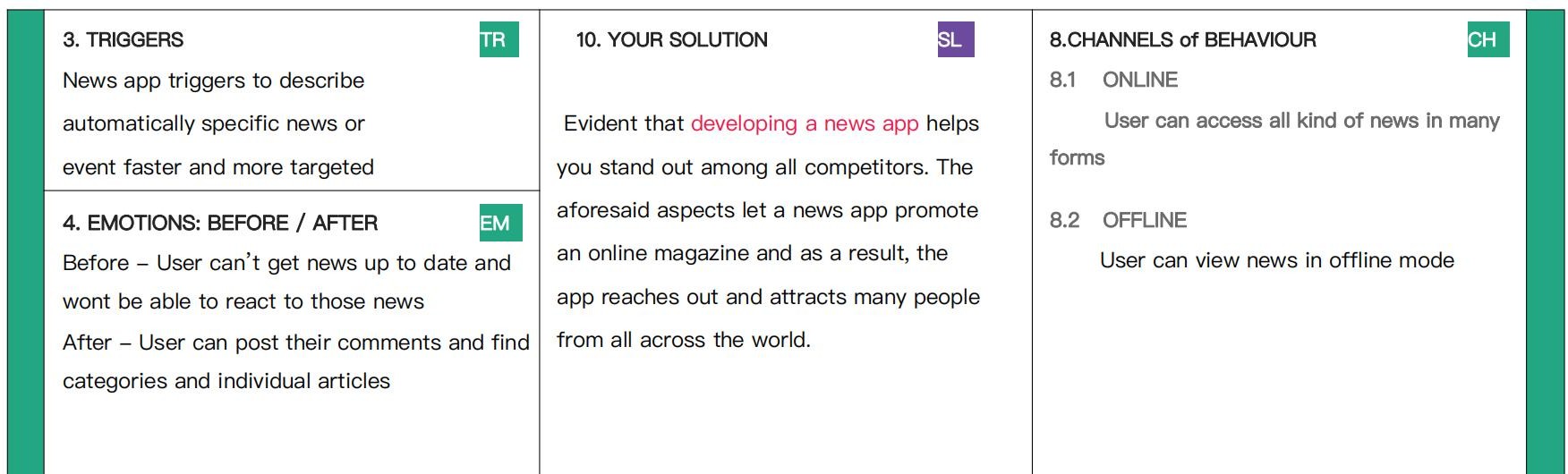
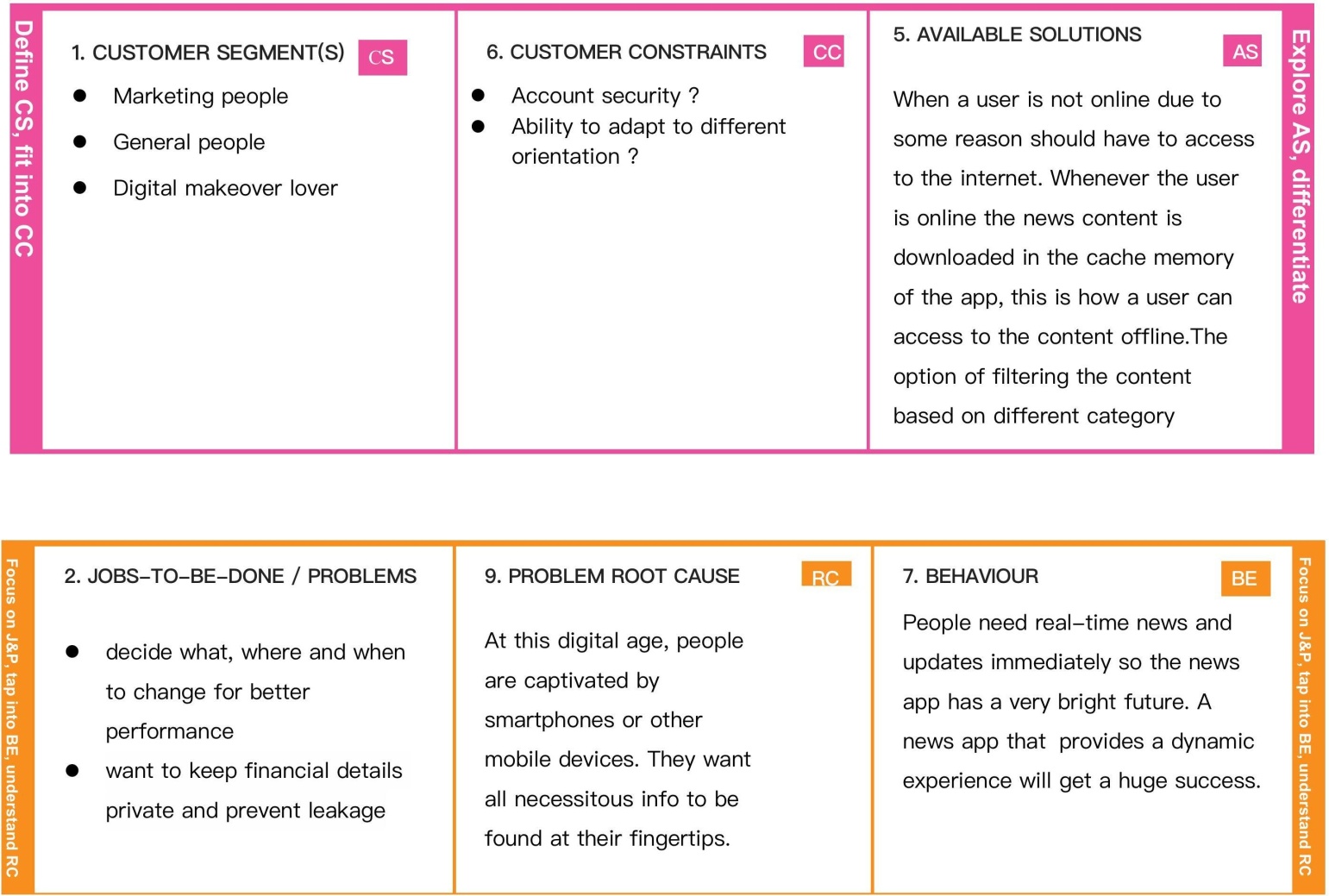
|  |  |  |
| --- | --- | --- |
| **SHARING OPTIONS** | **USERS CAN DOWNLOAD THE NEWS CONTENTS** | **NEWS AVAILABLE IN ALL LANGUAGE** |
| **NEWS WILL BE PROVIDED BASED ON USERS BROWSING** | **MOVIE REVIEWS** | **DOWNLOADED**  **NEWS CAN BE USED IN OFFLINE PURPOSES** |
| **LISTEN TO PRODCAST** | **DAILY HOROSCOPE** | **ARTICLES ABOUT ACHIEVERS IN VARIOUS STREAM** |

|  |  |  |
| --- | --- | --- |
| **MARKETING TRENDS** | **ALL IN ONE APP** | **ACCURATE WEATHER FORCAST** |
| **OFFER WALL** | **FREE OF COST** | **WORLDWIDE NEWS** |
| **BREAKING NEWS WILL BE NOTIFIED AS POP UP MENU** | **FILTER CONTENT** | **USERS CAN BROWSE DATAS AND EVENTS** |

* 1. **Proposed Solution**

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

# 3.3Problem Solution fit



1. **REQUIREMENT ANALYSIS**

# Functional requirement

Following are the functional requirements of the proposed solution.

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

# Non-functional Requirements:

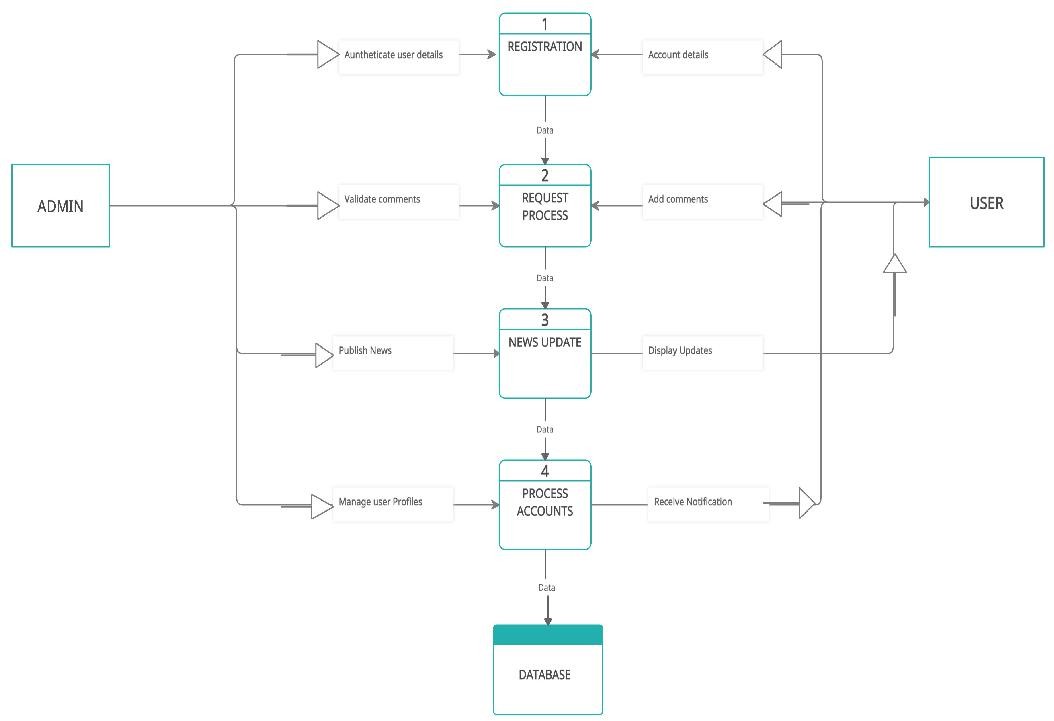
Following are the non-functional requirements of the proposed solution.

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

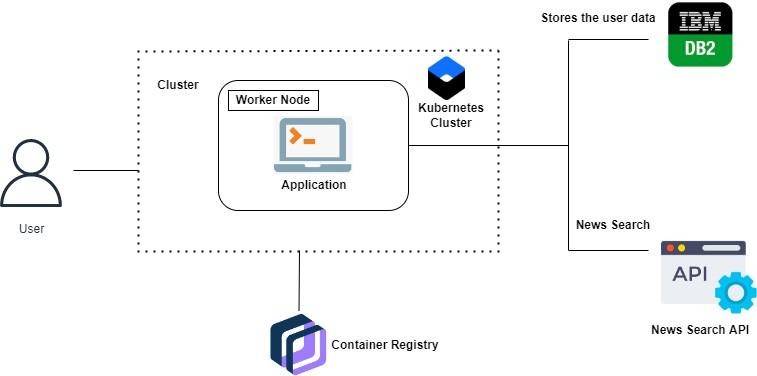
|  |  |  |
| --- | --- | --- |
| NFR-5 | **Availability** | Availability describes how likely the  system is accessible to a user at a given point in time. |
| NFR-6 | **Scalability** | This app defines scalability is the ability of the application to handle an increase in workload without performance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

# PROJECT DESIGN

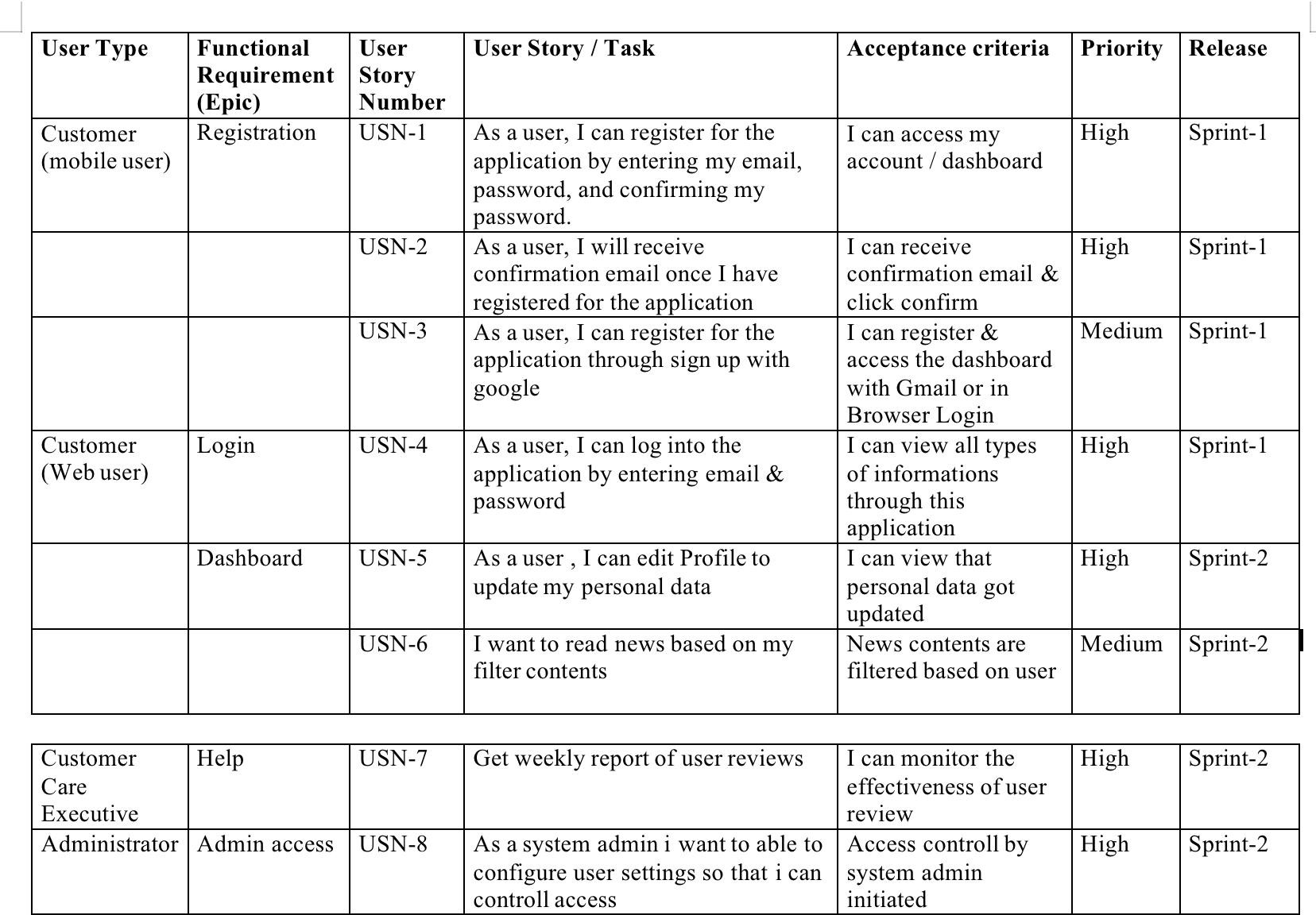
* 1. **Data Flow Diagrams**



# Solution & Technical Architecture



* 1. **User Stories**



1. **PROJECT PLANNING & SCHEDULING**
   1. **Sprint Planning & Estimation**

|  |  |  |
| --- | --- | --- |
| TITLE | DESCRIPTION | DATE |
| Prepare Empathy Map | Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements | 10 Oct 2022 |
| Ideation Brain Storming | List the by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance. | 15 Oct 2022 |
| Proposed Solution | Prepare the proposed solution document, which includes the  novelty, feasibility of idea, business model, social  impact, scalability of solution, etc. | 16 Nov 2022 |
| Problem Solution Fit | Prepare problem solution fit document | 10 Oct 2022 |
| Solution Architecture | Prepare solution architecture document. | 10 October 2022 |
| Customer Journey | Prepare the customer journey maps to understand the user interactions & experiences with the application (entry to exit). | 16 Nov 2022 |
| Solution Requirement | Prepare the functional requirement document | 10 Oct 2022 |

|  |  |  |
| --- | --- | --- |
| Data Flow Diagrams | Draw the data flow diagramsand submit for review. | 16 Nov 2022 |
| Technology Architecture | Prepare the technology architecture diagram. | 16 Nov 2022 |
| Prepare Milestone &Activity  List | Prepare the milestones & activity list of the project. | 2 Nov 2022 |
| Project Development - Delivery of Sprint-1, 2, 3& 4 | Develop & submit the developed code by testing it. | 17 Novr 2022 |

# Sprint Delivery Schedule

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SPRINT-1** | **Functional Requirements** | **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,andconfirning my password*** | ***5*** | ***High*** | ***K.Kaviyarasan*** |
| ***Sprint-1*** |  | ***USN-3*** | ***As a user,I can register for the application by choosing google account as well.*** | ***5*** | ***Medium*** | ***K.Kaviyarasan*** |
| ***Sprint-1*** | ***Login*** | ***USN-4*** | ***As a user, I can login into the application by entering email &password*** | ***5*** | ***High*** | ***K.Kaviyarasan*** |
| ***Sprint-2*** | ***Dashboard*** | ***USN-5*** | ***As a user,I can choose the the intrest and choices of news I want to see for the first time in dashboard*** | ***10*** | ***High*** | ***K.Kaviyarasan*** |
| ***Sprint-2*** | ***Dashboard user***  ***interface*** | ***USN-11*** | ***Administrator desingning the user interface*** | ***10*** | ***Medium*** | ***K.Kaviyarasan*** |
| ***Sprint-3*** |  | ***USN-6*** | ***As a user I can go through the feed of news filtered according to my wish*** | ***10*** | ***High*** | ***K.Kaviyarasan*** |
| ***Sprint-3*** |  | ***USN-7*** | ***As a user, I can upadate my account in settings*** | ***10*** | ***Medium*** | ***K.Kaviyarasan*** |
| ***Sprint-4*** |  | ***USN-8*** | ***As a user,I can update my intrest and choice in accound***  ***settings*** | ***10*** | ***Medium*** | ***K.Kaviyarasan*** |
| ***Sprint-4*** | ***Chat bot/quary*** | ***USN-9*** | ***Solve the issue brought up by client*** | ***5*** | ***Medium*** | ***K.Kaviyarasan*** |
| ***Sprint-4*** |  | ***USN10*** | ***Roll out updates and bug fixes*** | ***5*** | ***High*** | ***K.Kaviyarasan*** |

**6.3 ,REPORT FROM JIRA**

**7.CODING RESOLUTIONING**

**from flask import Flask, render\_template,request,flash,redirect,url\_for,session from newsapi import NewsApiClient**

**import ibm\_db import requests**

**from flask\_sqlalchemy import SQLAlchemy**

**app = Flask( name ) app.app\_context().push()**

**app.config['DEBUG'] = True app.config['SQLALCHEMY\_DATABASE\_URI'] = 'sqlite:///weather.db'**

**db = SQLAlchemy(app)**

**class City(db.Model):**

**id = db.Column(db.Integer, primary\_key=True) name = db.Column(db.String(50), nullable=False)**

**app.secret\_key='a'**

**connection = ibm\_db.connect("DATABASE=bludb ; HOSTNAME=54a2f15b-5c0f-46df-8954- 7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud; PORT= 32733; SECURITY=SSL SSLServerertificate=/Users/pradeep/PycharmProjects/Flask SQLite/certificate.crt; UID=ssr73017; PWD=zQUhCA8HIIVl8nxT;",'','' )**

**@app.route('/') def index():**

**return render\_template('index.html')**

**@app.route('/register', methods=['GET', 'POST']) def register():**

**if request.method == 'POST': try:**

**username = request.form['username'] mail = request.form['mail'] contact = request.form['contact'] password = request.form['password']**

**query = "INSERT INTO USERS VALUES(?,?,?,?)"**

**stmt = ibm\_db.prepare(connection, query) ibm\_db.bind\_param(stmt, 1, username)**

**ibm\_db.bind\_param(stmt, 2, mail)**

**ibm\_db.bind\_param(stmt, 3, contact)**

**ibm\_db.bind\_param(stmt, 4, password) ibm\_db.execute(stmt)**

**flash("Registered Successfully","success") except:**

**flash("Error in Insert Operation", "danger") finally:**

**return redirect(url\_for("index")) con.close()**

**return render\_template('register.html')**

**@app.route('/login', methods=['GET', 'POST']) def login():**

**global userid**

**if request.method == "POST":**

**username = request.form['username'] password = request.form['password']**

**query = "SELECT \* FROM USERS where username=? and password=?" stmt = ibm\_db.prepare(connection, query) ibm\_db.bind\_param(stmt, 1, username)**

**ibm\_db.bind\_param(stmt, 2, password) ibm\_db.execute(stmt)**

**account = ibm\_db.fetch\_assoc(stmt) if account:**

**session['Loggedin'] = True session['id'] = account['USERNAME']**

**session['username'] = account['USERNAME'] return redirect("/news")**

**else:**

**flash("Oops Username and Password Mismatch", "danger") return redirect(url\_for("index"))**

**@app.route("/news") def home():**

**api\_key = '25560f3cf53c433c9807c60595b373a6'**

**newsapi = NewsApiClient(api\_key=api\_key)**

**top\_headlines = newsapi.get\_top\_headlines(sources="bbc-news") all\_articles = newsapi.get\_everything(sources="bbc-news")**

**t\_articles = top\_headlines['articles'] a\_articles = all\_articles['articles']**

**news = [] desc = [] img = [] p\_date = [] url = []**

**for i in range(len(t\_articles)): main\_article = t\_articles[i]**

**news.append(main\_article['title']) desc.append(main\_article['description']) img.append(main\_article['urlToImage']) p\_date.append(main\_article['publishedAt']) url.append(main\_article['url'])**

**contents = zip(news, desc, img, p\_date, url)**

**news\_all = [] desc\_all = [] img\_all = [] p\_date\_all = [] url\_all = []**

**for j in range(len(a\_articles)): main\_all\_articles = a\_articles[j]**

**news\_all.append(main\_all\_articles['title']) desc\_all.append(main\_all\_articles['description']) img\_all.append(main\_all\_articles['urlToImage']) p\_date\_all.append(main\_all\_articles['publishedAt']) url\_all.append(main\_article['url'])**

**all = zip(news\_all, desc\_all, img\_all, p\_date\_all, url\_all)**

**return render\_template('home.html', contents=contents, all=all)**

**@app.route('/weather', methods=['GET', 'POST']) def weather():**

**if request.method == 'POST':**

**new\_city = request.form.get('city')**

**if new\_city:**

**new\_city\_obj = City(name=new\_city)**

**db.session.add(new\_city\_obj)**

**db.session.commit()**

**cities = City.query.all() url =**

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

**weather\_data = [] for city in cities:**

**r = requests.get(url.format(city.name)).json()**

**weather = {**

**'city': city.name,**

**'temperature': r['main']['temp'],**

**'description': r['weather'][0]['description'],**

**'icon': r['weather'][0]['icon'],**

**}**

**weather\_data.append(weather)**

**return render\_template('weather.html', weather\_data=weather\_data)**

**@app.route('/logout') def logout():**

**session.clear()**

**return redirect(url\_for("index"))**

**if name == ' main ': app.run(debug=True)**

# TESTING

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test case** | **Feature** | **Component** | **Test**  **scebario** | **Expected**  **result** | **Actual**  **result** | **Status** | **Comments** | **Bug** | **Executed**  **By** |
| ***Login*** | ***Functional*** | ***Login pages*** | ***Verify user can see login in option*** | ***Can visible*** | ***Yes visible*** | ***Pass*** | ***Successful*** | ***-*** | ***Kaviyarasan.K*** |
| ***Sign up*** | ***Functional*** | ***Register page*** | ***Verify user has the option to sign up*** | ***Can visible*** | ***Yes visible*** | ***Pass*** | ***Successful*** | ***-*** | ***Gowrimanokaran.S*** |
| ***Password mismatch***  ***checking*** | ***Functional*** | ***Login*** | ***Verify user has the option to sign up*** | ***verified*** | ***Returned to actual page*** | ***Pass*** | ***Successful*** | ***-*** | ***Gowrimanokaran.S*** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Fetch news*** | ***Functional*** | ***Dasgboard*** | ***Verify user can can get the news*** | ***News will feed***  ***To the app*** | ***404 error*** | ***Fail*** | ***Unsuccessful*** | ***App integration problem*** | ***Kaviyarasan.K*** |
| ***Types of news avilable in the fetch news page*** | ***Functional*** | ***Newspage*** | ***Types of newws available*** | ***Weather,***  ***Sport,***  ***Economy*** | ***Hover buttons will be shown .*** | ***Yes*** | ***successful*** | ***-*** | ***Kaviyarasan.K and Gowrimanokaran.S*** |

1. **ADVANTAGES & DISADVANTAGES**

# Advantages:-

* This app constitutes a good user interface which is appealing and much interesting and easy to use.
* Permit the users to share and display certain news on the social media.
* These apps provide the latest videos and coverages of news on the device.
* The user gets the details about the weather conditions with the applications

# Disadvantages:-

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

1. **CONCLUSION**

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

1. **FUTURE SCOPE**

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

1. **APPENDIX**

# GitHub

**https://github.com/IBM-EPBL/IBM-Project-49399-1660818519**

# Project demo link

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

**https://drive.google.com/file/d/10zenKZ1GXq4pvgmVCd1uCqtJ9DDdEVJ2/view?usp=drivesdk**