# 1. INTRODUCTION

News is information about current events. This may be provided through many different media: word of mouth, printing, postal systems, broadcasting, electronic communication, or through the testimony of observers and witnesses to events. Throughout history, people have transported new information through oral means. Having developed in China over centuries, newspapers became established in Europe during the early modern period. In the 20th century, radio and television became an important means of transmitting news. Whilst in the 21st, the internet has also begun to play a similar role.

But nowadays people have no time to read news, so we have decided to create a News application which makes users to read news in ease.

**1.1 Project Overview**

Over the period of years, people have updated their way of news consumption. Right from the traditional way of morning newspapers till easy updates on their mobile phones, technology has given a new way to the news publishing industry. If you are running a news publisher and wish to expand in the digital world, you have landed at the right place. This article will help you in developing a feature-rich news app and help in boosting your revenue digitally.

As more and more people are shifting from print media to digital news sources, the competition between the online streaming platforms is also increasing. To stand out from the competition, it is essential to develop a news app that provide the listed major factors:

Comfort: Ease while browsing the news updates of their choice.

Convenience: Accessing the news in poor or bad internet connectivity.

Control: Getting updates from various desired categories rather than unwanted updates.

**1.2 Purpose**

Know fundamental concepts and can work on IBM Cloud and Db2. Gain a broad understanding of Flask which is used to create a meaningful User Interface and Store the user’

**2. LITERATURE SURVEY**

A literature survey or a literature review in a project report is that section which shows the various analyses and research made in the field of your interest and the results already published, taking into account the various parameters of the project and the extent of the project.

It is the most important part of your report as it gives you a direction in the area of your research. It helps you set a goal for your analysis - thus giving you your problem statement.

When you write a literature review in respect of your project, you have to write the researches made by various analysts - their methodology (which is basically their abstract) and the conclusions they have arrived at. You should also give an account of how this research has influenced your thesis.

Descriptive papers may or may not contain reviews, but analytical papers will contain reviews. A literature review must contain at least 5 - 7 published researches in your field of interest.

**2.1 Existing problem**

Ryan Ko et al.(2012).A study of mobile news reading suggests that users read the news once a day for between 10 and 30 minutes, preferably during the mornings and at home. The personalization of news app interaction is achieved through making the interface adaptable. Adaptive news interfaces that 'automatically' adapt to the way the user reads the news in particular contexts are not found, other than in re-ordering menus of headlines to take account of previous reading choices.

Marios constantinides et al,(2015).Mobile app ecosystems are transforming patterns of news help users keep abreast of news by aggregation over The personalization of news app interaction in these Adaptive news interfaces that ‘automatically’ adapt to the way the user reads the news in particular they jump to a particular section whereas when they read Having characterized mobile news readers as one of three types, the question that follows is whether a news app could detect a user as being a particular reader type from their question involving the development of a mobile news app the adaptive variant interface for each news reader type.

Manish Kumar et al,(2016).In late 10 years, Internet has been growing appallingly rapidly. The expense of capacity, the force devoured by PC and equipment is expanding. Storage room in information focus can't address our needs and hence the framework and repair of unique web can't settle above enquiries, so new arrangements are required. In the meantime, substantial undertakings need to study information supply completely to bolster its business. The gathering and examination ought to be composed on a fresh out of the plastic new stage. So we require a fresh out of the plastic new registering model to use the empty assets of tablet, expand the financial productivity through up usage rate, diminish the hardware vitality utilization. This is an application software for daily user.in which a user gets news update from another user. This application serves best for each individual person.

**2.2 References**

[1] "Marios constantinides , Exploring mobile news reading interactions for news app personalization", 2015.

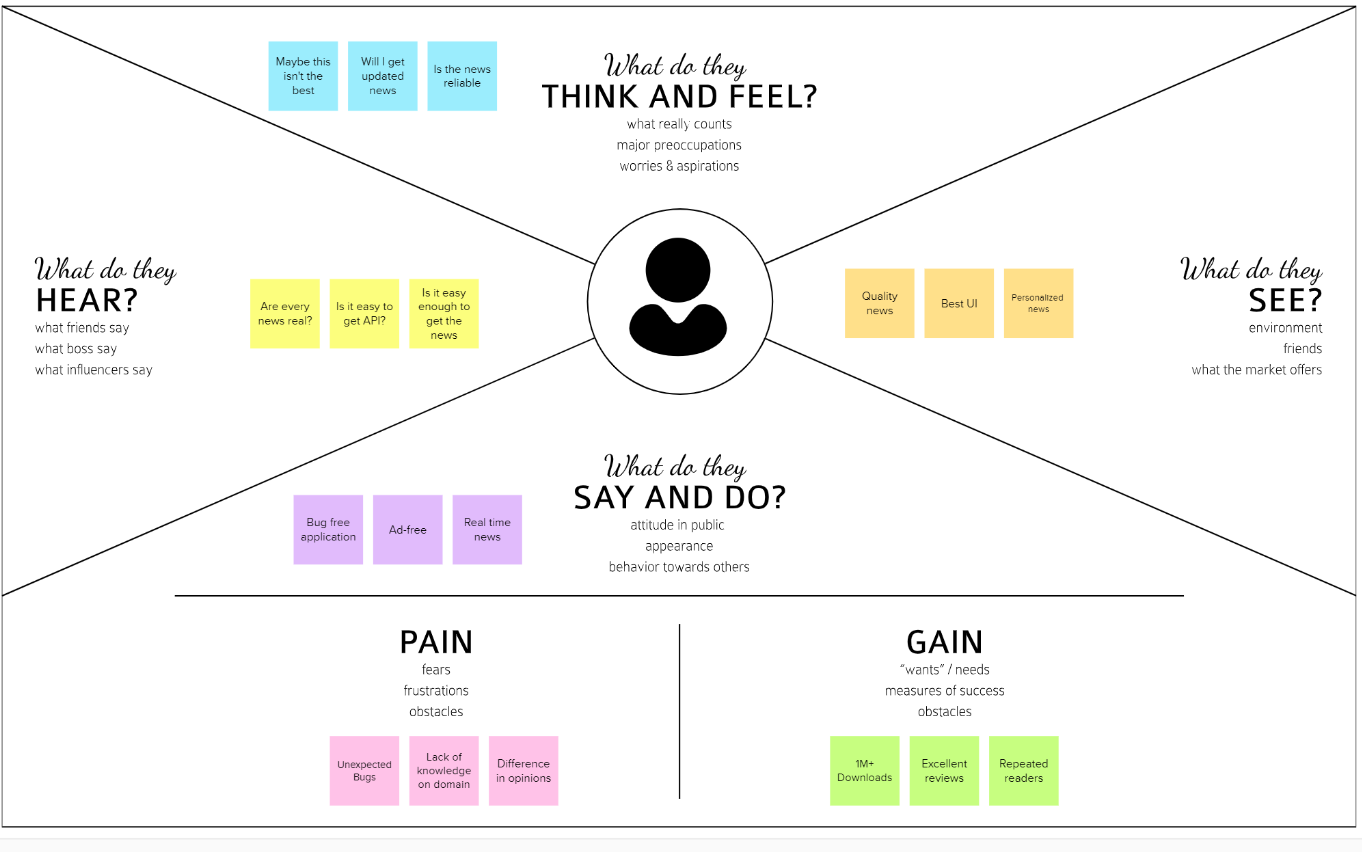
[2]"Ryan Ko, Markus Kirchberg, Bu Sung Lee, Tracking of Data Leaving the Cloud",2012.

**2.3 Problem Statement Definition**

Cloud Computing is one of the most widely used concepts around the world. It will be essential in storage of data. In this article, we will be dealing with news application which shows news according to user favorites. This produce good quality of news which is gathered from trusted source, Its also time consuming for the users.

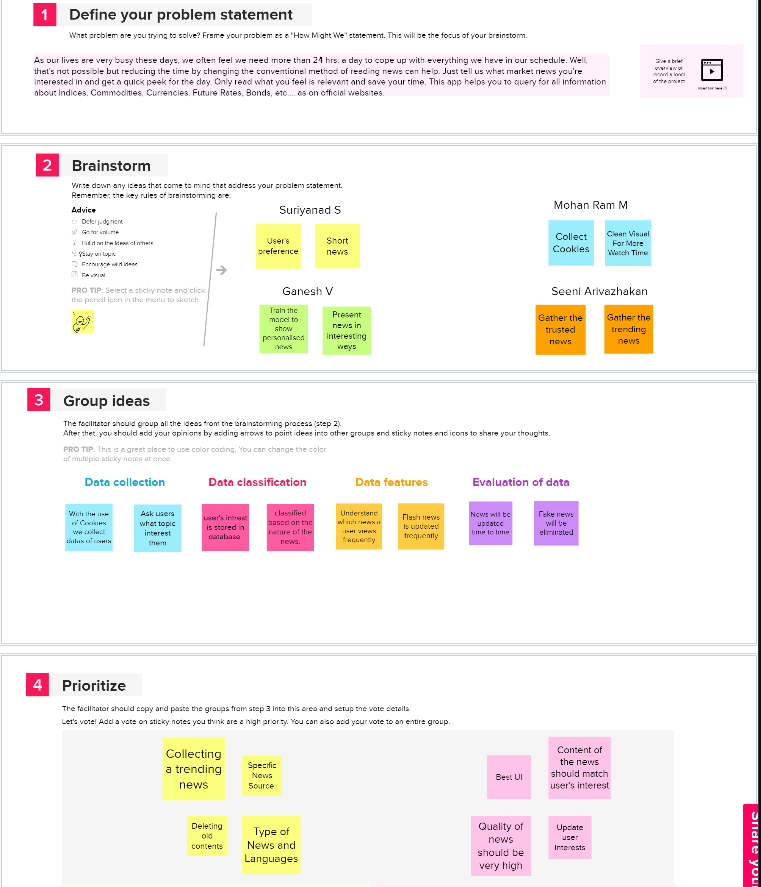
**3. IDEATION & PROPOSED SOLUTION**

**3.1 Empathy\_Map\_Canvas**

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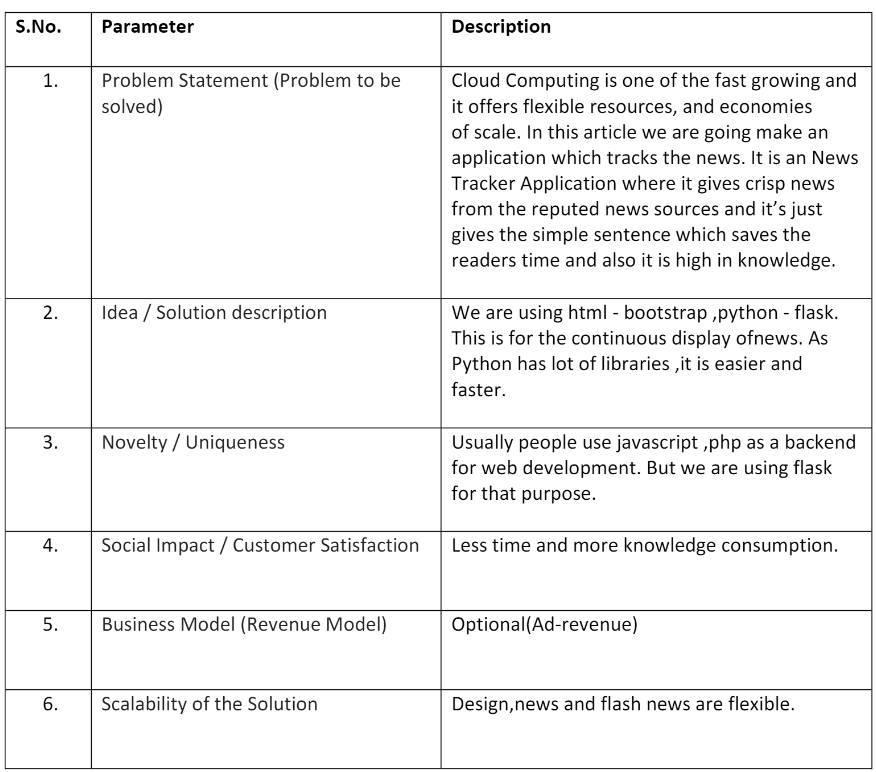
**3.2 Ideation & Brainstorming**

Ideation refers to the whole creative process of coming up with and communicating new ideas. It can take many different forms, from coming up with a totally new idea to combining multiple existing ideas to create a new process or organizational system. Ideation is similar to a practice known as brainstorming.

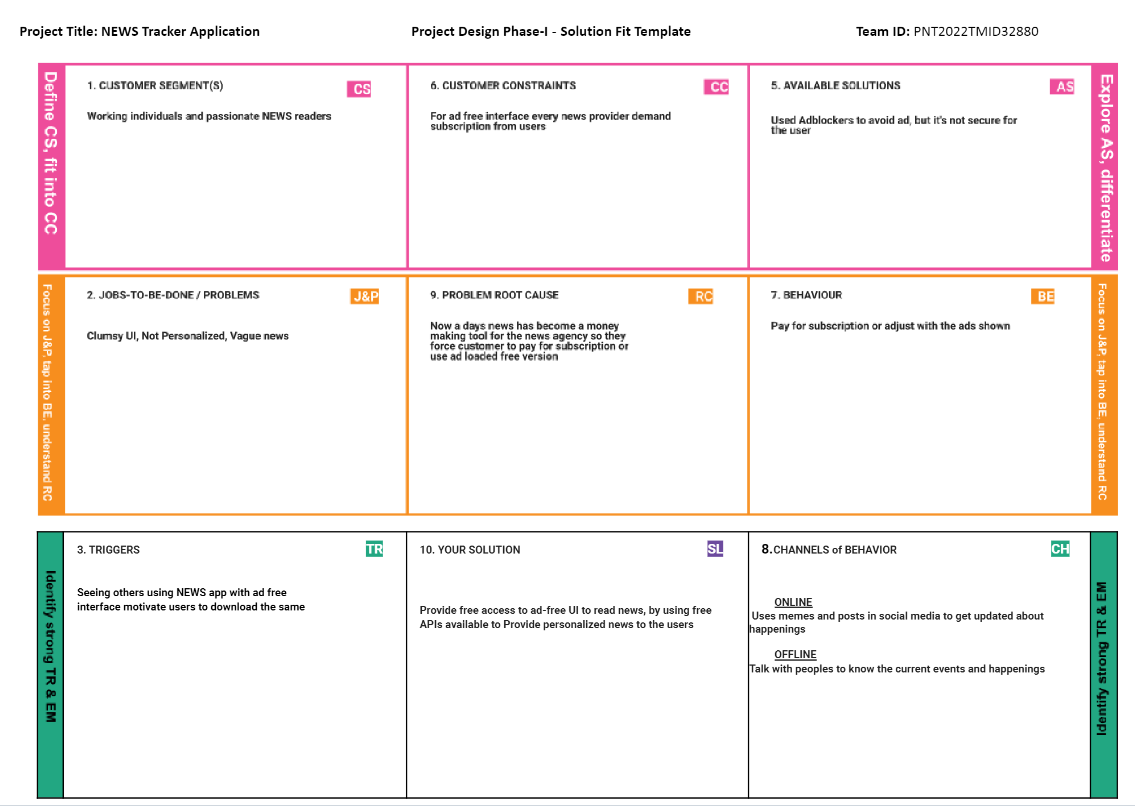


**3.3 Proposed Solution**

Proposed solution should relate the current situation to a desired result and describe the benefits that will accrue when the desired result is achieved. So, begin your proposed solution by briefly describing this desired result.

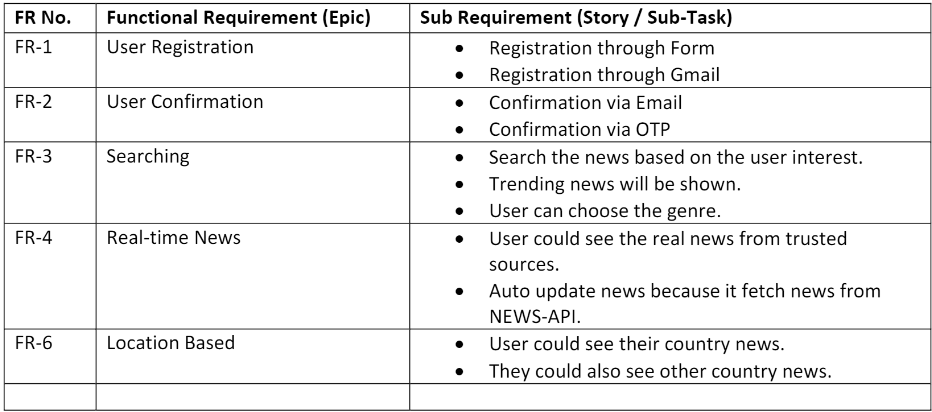
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**3.4 Problem Solution fit**

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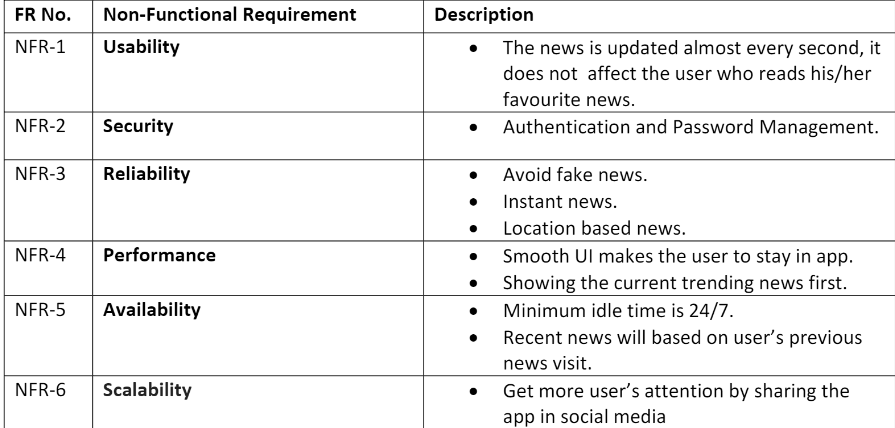
**4. REQUIREMENT ANALYSIS**

**4.1 Functional requirement**

Functional requirements are product features or functions that developers must implement to enable users to accomplish their tasks. So, it’s important to make them clear both for the development team and the stakeholders. Generally functional requirements describe system behavior under specific conditions.

**4.2 Non-functional requirement**

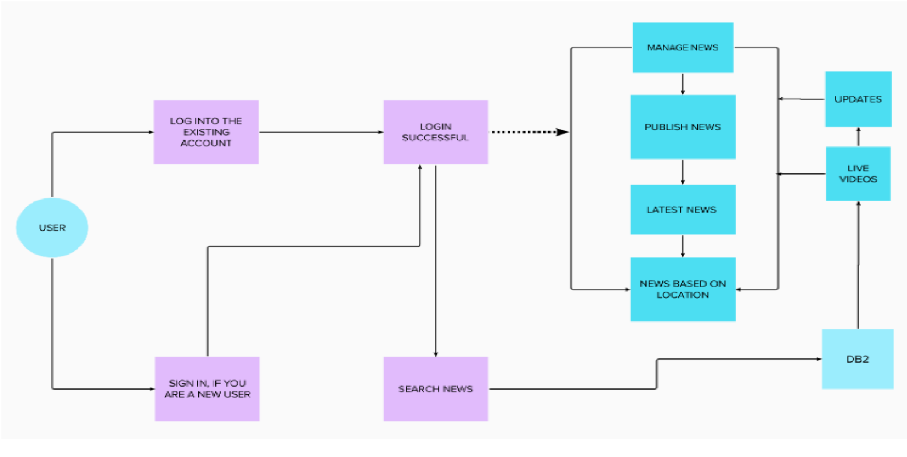
Nonfunctional requirements, not related to the system functionality, rather define how the system should perform.



**5. PROJECT DESIGN**

**5.1 Data Flow Diagrams**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both.

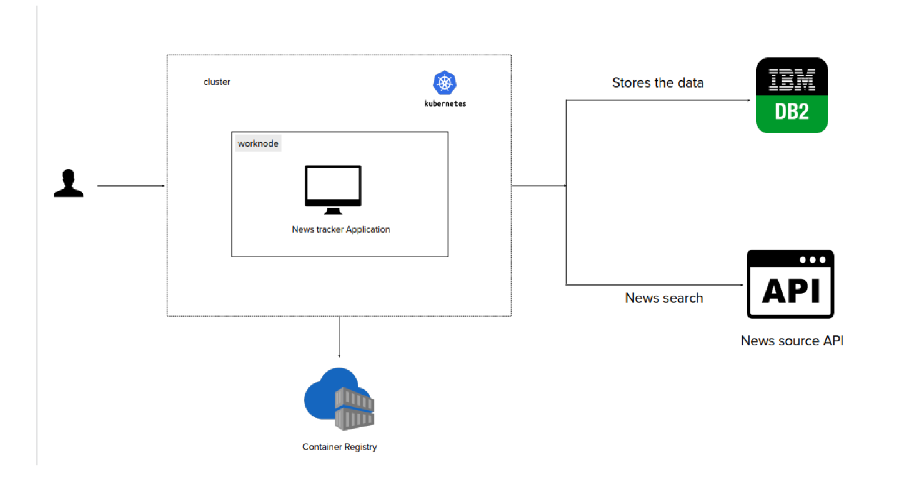


**5.2 Solution & Technical Architecture**

IBM® Cognos® Analytics with Watson takes BI a step further with AI capabilities that not only bring an accurate, trusted and complete picture of your business, but forecast what’s coming in the future, predict outcomes and explain why they may happen.

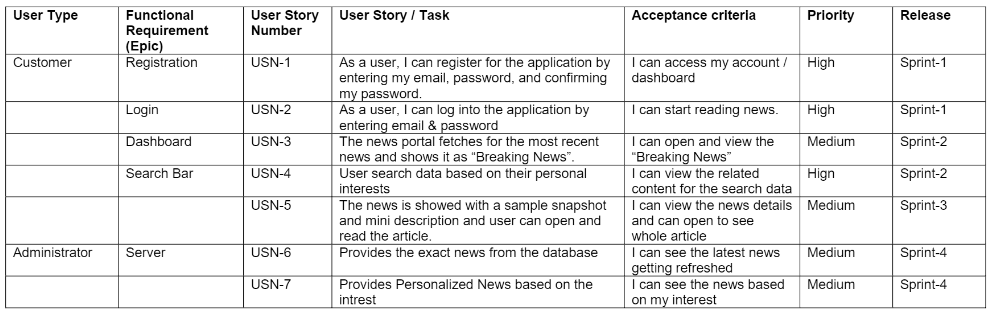
Why IBM Cognos Analytics with Watson?

* Use built-in AI to accelerate and improve blending data or finding the optimal tables for your model.
* Uncover hidden trends and drivers with the help of AI so you can get the facts behind your data and deliver insights in real time.
* Create powerful visualizations, tell the story of your data and share insights via email, Slack, or the mobile app.

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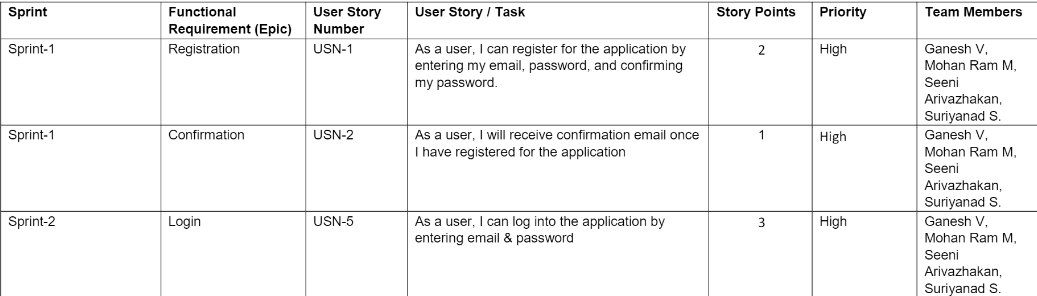
**5.3 User Stories**

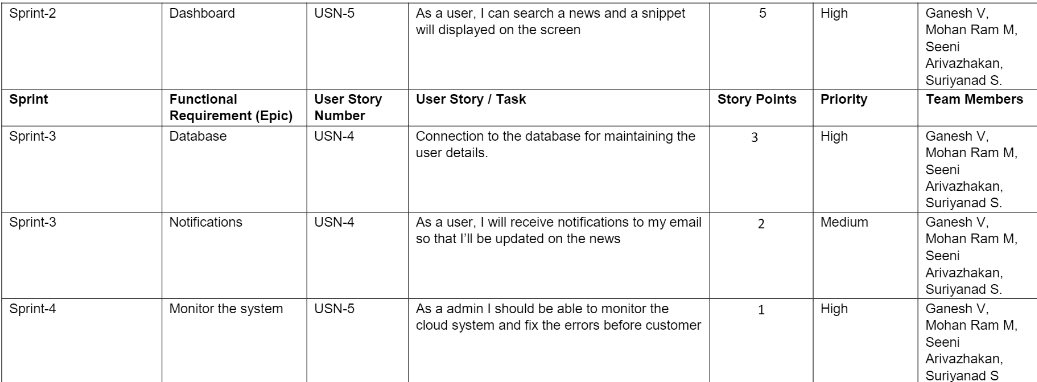
A user story is an informal, general explanation of a software feature written from the perspective of the end user. Its purpose is to articulate how a software feature will provide value to the customer.

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**6. PROJECT PLANNING & SCHEDULING**

**6.1 Sprint Planning & Estimation**

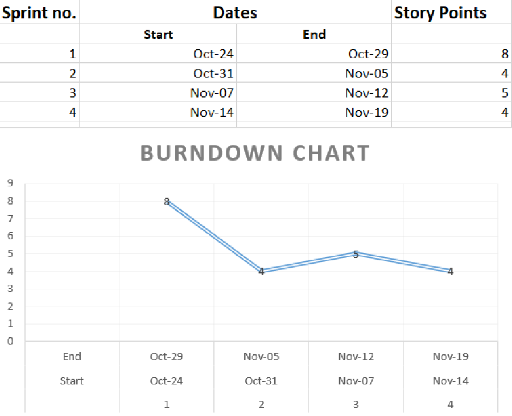
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**6.2 Sprint Delivery Schedule**

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**6.3 Burn down chart**

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**7. TESTING**

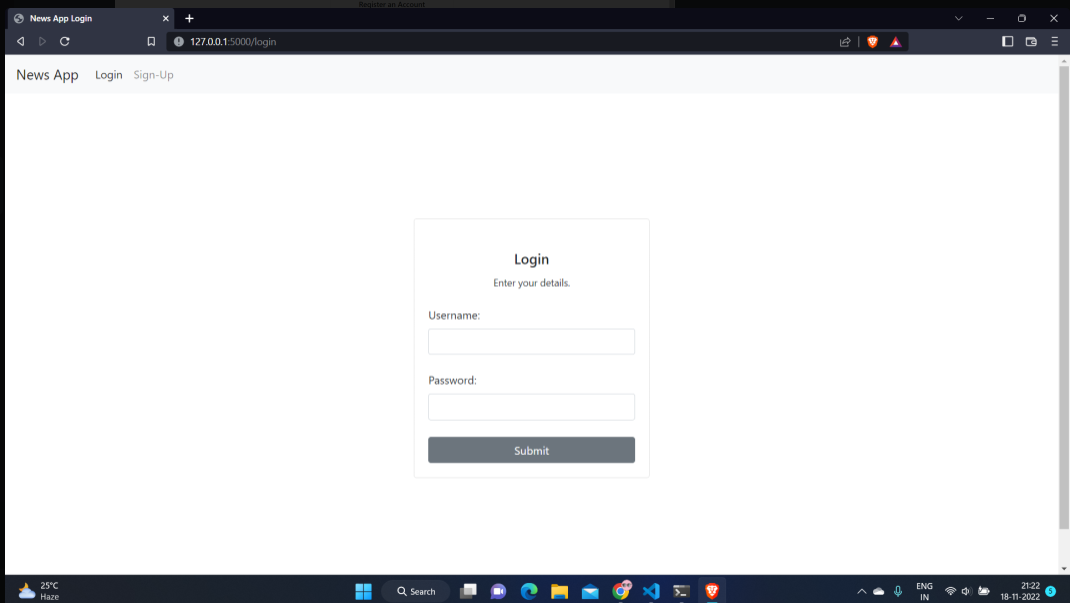
Testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. The benefits of testing include preventing bugs, reducing development costs and improving performance.

**7.1 Test Cases**

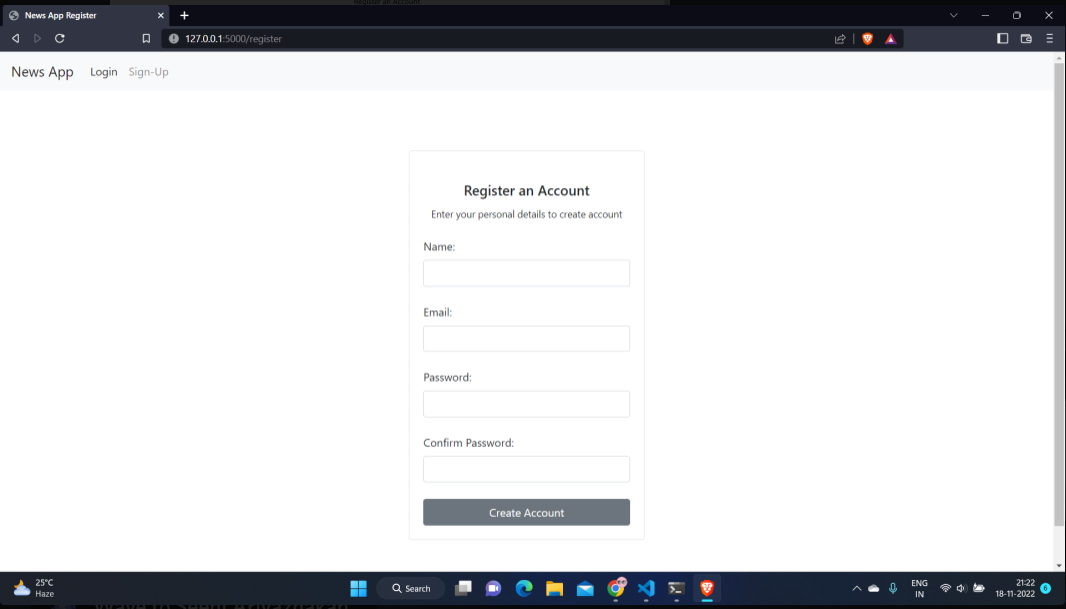
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO** | **TESTCASE** | **INPUT** | **EXPECTED**  **OUTPUT** | **ACTUAL**  **OUTPUT** | **RESULT** |
| 1. | User login | Email &  Password | Successful login message | Successful login message | PASS |
| 2. | Storing data | login credentials | Data is stored in Database | Data is stored in Database | PASS |
| 3. | Display news | Login the website | New news displayed | New news displayed | PASS |

**8. OUTPUT**

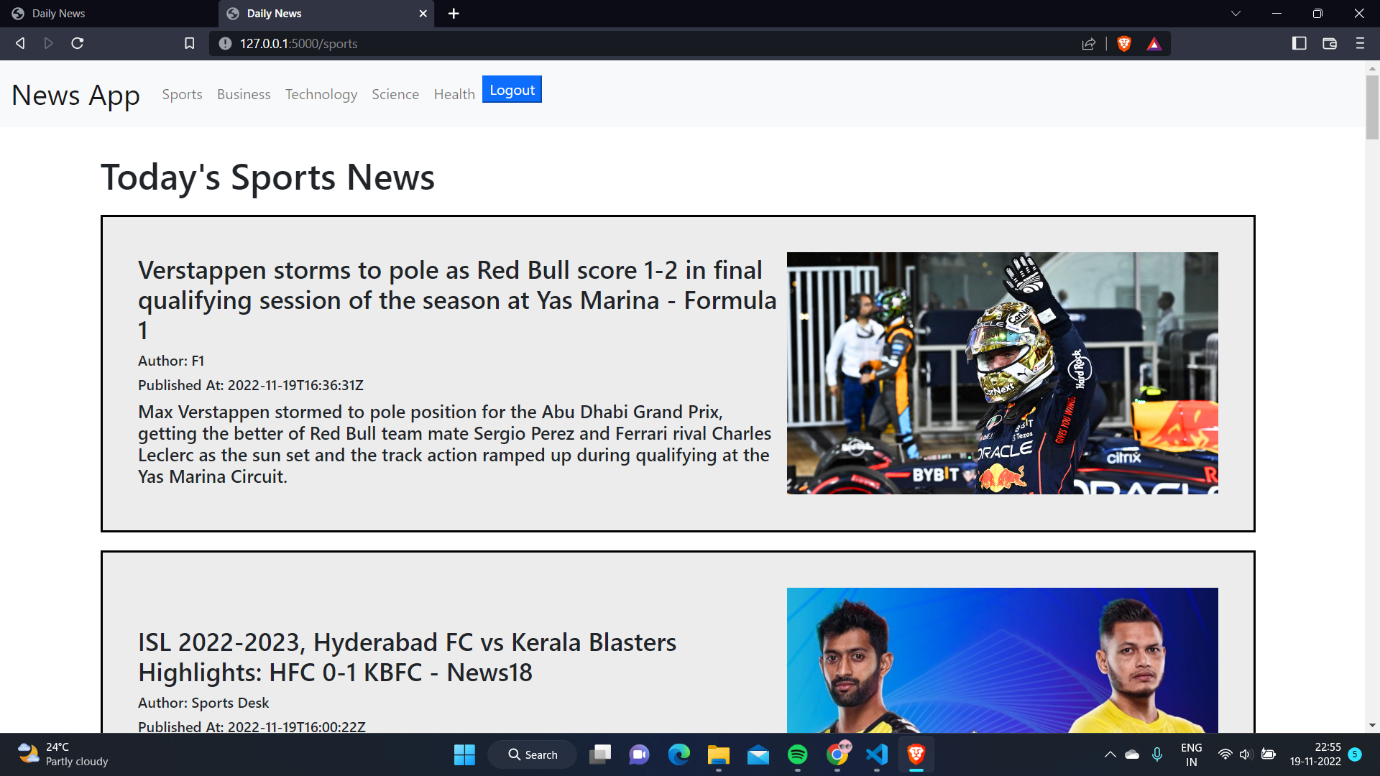
**8.1 Login page**

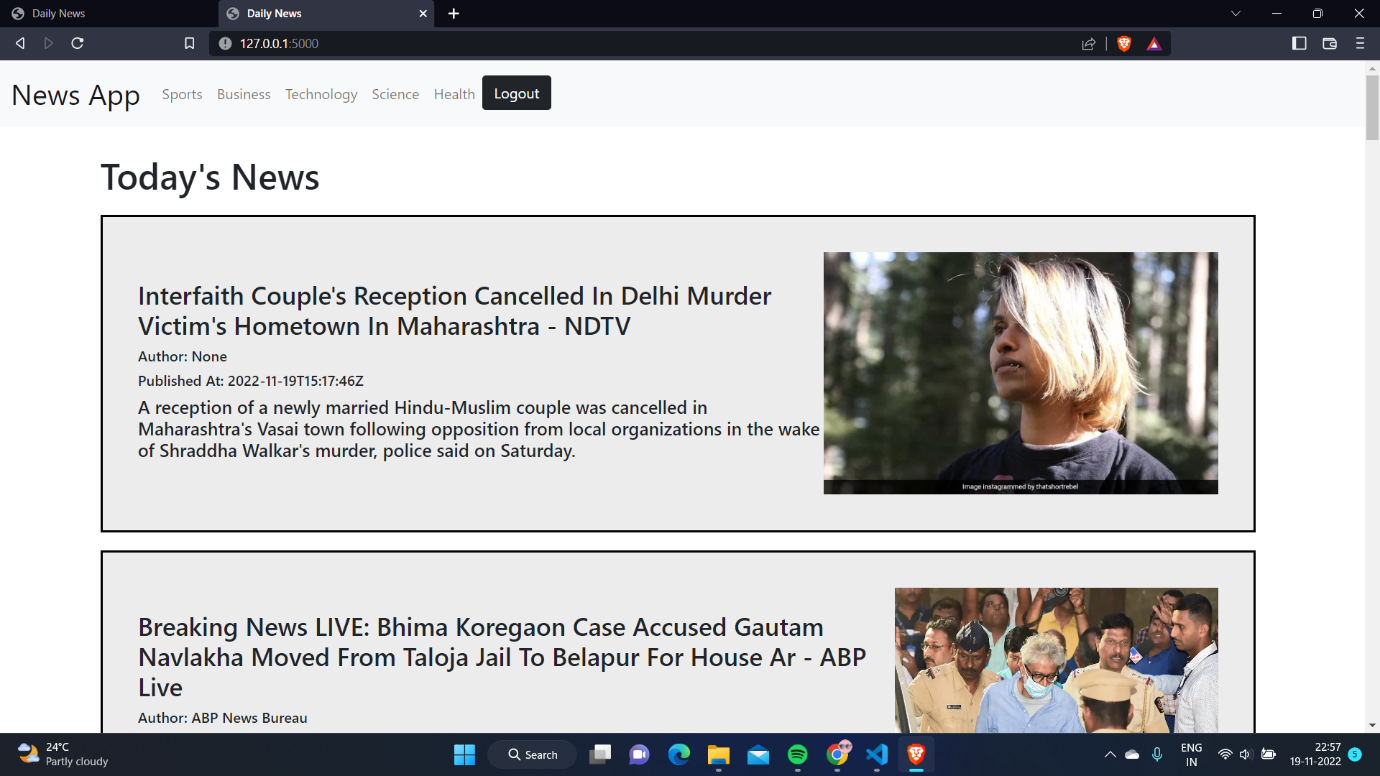


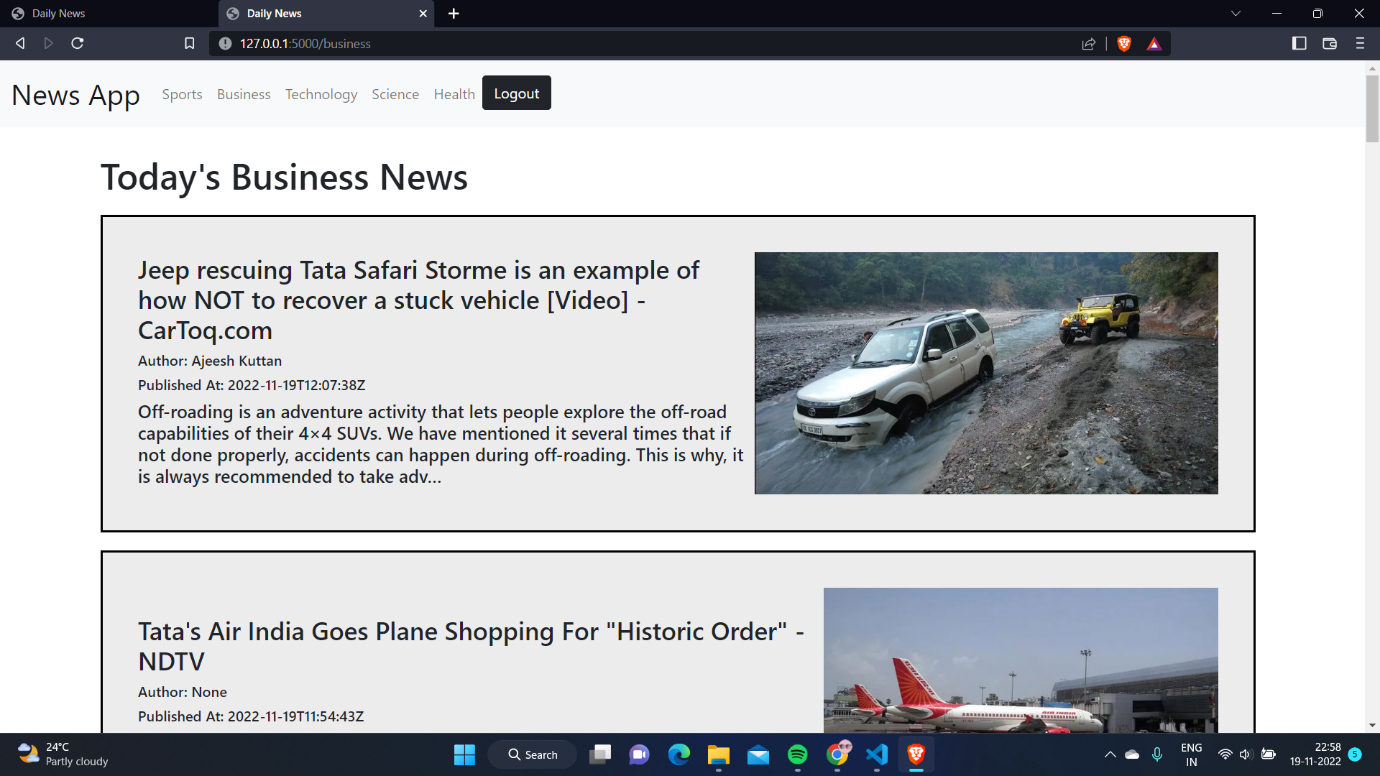
**8.2 Register page**

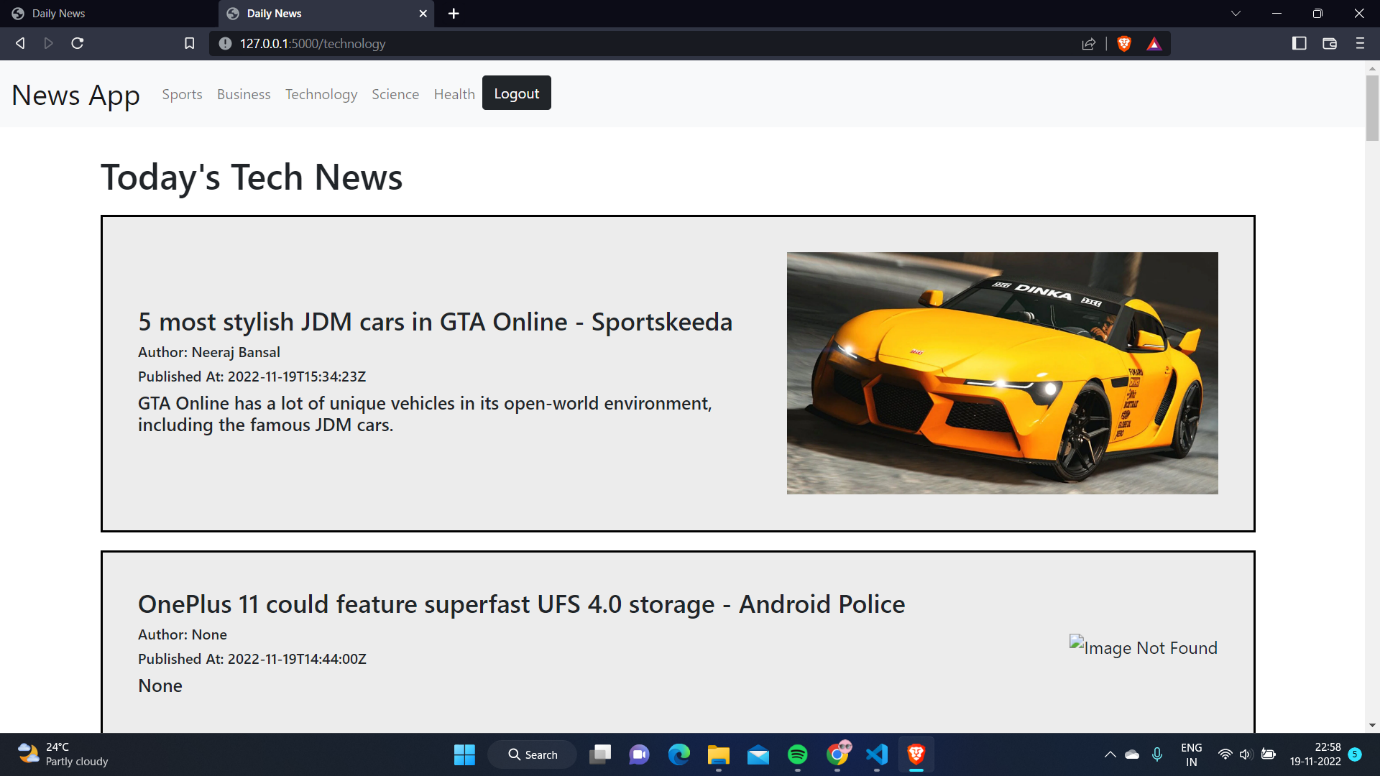


**8.3 Home page**









**9. ADVANTAGES & DISADVANTAGES**

**Advantages:**

* Improved availability of data. DB2 data sharing helps you meet your service objective by improving availability during both planned and unplanned outages.
* Faster time to market. You can spin up new instances or retire them in seconds, allowing developers to accelerate development with quick deployments.
* flask is lightweight, open source, and offer minimal coding for developing an application.

**Disadvantages:**

* More potential for security risks.
* IBM Cloud with a bare metal server is not the best solution for you as the configuration of this server is usually a rather time-consuming process.
* The complete plan must be rebound for any DB2 program modification.
* BIND can be time-consuming for large plans.

**10. CONCLUSION**

  Thus a news tracker application was created using Flask, IBM DB2 and the data’s are stored in IBM cloud which displays the current news when logged in with right credentials

**11. FUTURE SCOPE**

User interest based news and most interested news can be displayed accurately with the help of Machine learning which can be implemented in the future

**12. APPENDIX**

**SOURCE CODE**

**app.py:**

from flask import Flask, render\_template,request

import requests

app = Flask(\_\_name\_\_)

app.secret\_key = 'secret123'

@app.route('/')

def index():

url = "https://newsapi.org/v2/top-headlines?country=in&category=general&apiKey=7e1737d3191d4fe894fc579df01b7bde"

r= requests.get(url).json()

case = {

'articles': r['articles']

}

return render\_template('index.html',cases = case)

@app.route('/sports')

def sports():

url = "https://newsapi.org/v2/top-headlines?country=in&category=sports&apiKey=7e1737d3191d4fe894fc579df01b7bde"

r= requests.get(url).json()

case = {

'articles': r['articles']

}

return render\_template('sports.html',cases = case)

@app.route('/business')

def business():

url = "https://newsapi.org/v2/top-headlines?country=in&category=business&apiKey=7e1737d3191d4fe894fc579df01b7bde"

r= requests.get(url).json()

case = {

'articles': r['articles']

}

return render\_template('business.html',cases = case)

@app.route('/technology')

def technology():

url = "https://newsapi.org/v2/top-headlines?country=in&category=technology&apiKey=7e1737d3191d4fe894fc579df01b7bde"

r= requests.get(url).json()

case = {

'articles': r['articles']

}

return render\_template('tech.html',cases = case)

@app.route('/science')

def science():

url = "https://newsapi.org/v2/top-headlines?country=in&category=science&apiKey=7e1737d3191d4fe894fc579df01b7bde"

r= requests.get(url).json()

case = {

'articles': r['articles']

}

return render\_template('science.html',cases = case)

@app.route('/health')

def health():

url = "https://newsapi.org/v2/top-headlines?country=in&category=health&apiKey=7e1737d3191d4fe894fc579df01b7bde"

r= requests.get(url).json()

case = {

'articles': r['articles']

}

return render\_template('health.html',cases = case)

@app.route('/')

def login():

return render\_template('login.html')

@app.route('/login',methods=["POST"])

def form():

title = "Home"

name = request.form.get("name")

password = request.form.get("password")

u\_name = "username"

p\_name = "password"

if u\_name != name and p\_name != password:

error\_statement = "Please fill the details!!!"

return render\_template('base.html',title = title, name= name,password=password)

if \_\_name\_\_ == '\_\_main\_\_':

app.run(debug=True)

**Project GitHub Link**

<https://github.com/IBM-EPBL/IBM-Project-16312-1659611345>

**Project Demo Link**