A project report
on

News Tracker Application

Powered by IBM India

Submitted by

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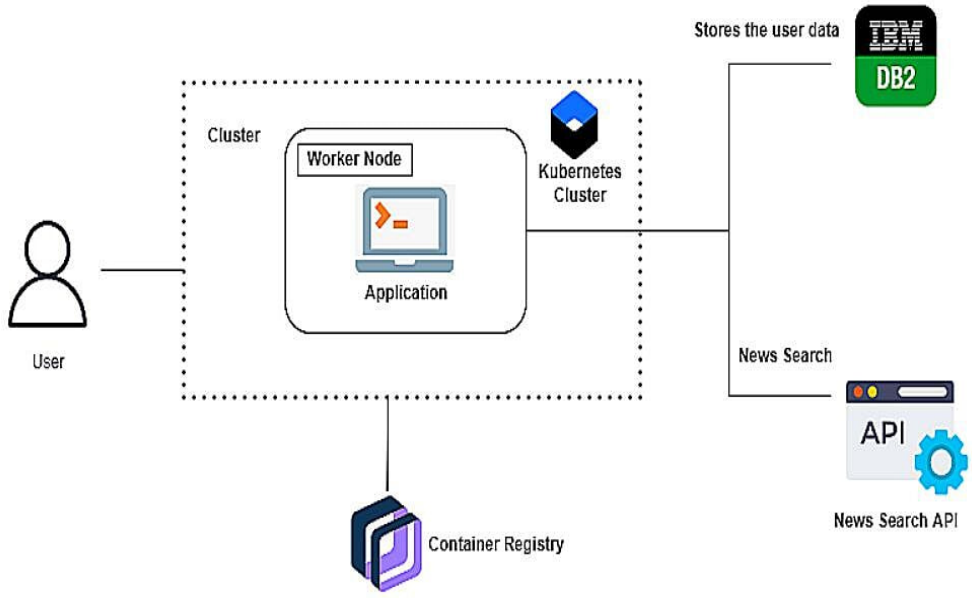
1.INTRODUCTION

1.1 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's not possible but reducing the time by changing the conventional method of reading news can help. Just tell us what market news you're 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.… as on official websites.



Technical Architecture

Project Workflow:

1. The user interacts with the application.

2. Registers by giving the details.

3. Integrate the application with news APIs and store the data in the database.

4. The database will have all the details and the user can search the news by using a search bar.

2.LITERATURE SURVEY

2.1 Existing problem:

With the rapid development of the Internet and its permeability, people get to know the latest news through online media, blogs and news feeds. Nowadays, news reading is an indispensable daily activity of many people. With the recent popularity of smart mobiles and the rapid development of the mobile Web, more and more people tend to read news online via their mobiles or other handheld devices, e.g., tablets. However, due to the huge volume of news articles generated every day, readers cannot afford to go through all the news online. So, news recommendation systems, which aim to filter out irrelevant online information and recommend to users their preferred news, have been widely studied. For easy organization, news aggregators that allow a single place to view news from various sources using API.

2.2 References

S. NO	Paper Title	Author(s)	Month/ Year	Method/Implementation techniques
1.	An End-to-end Weaklysupervised News Aggregation Framework	Xijin Tang, Xiaohui Huang	June, 2022	The framework combines Snorkel-based weakly- supervised classification, Latent Dirichlet Allocation (LDA) topic modeling, and topic signal detection model to classify andaggregate unlabeled news.
2.	Exploring mobile news reading interactions for news app personalisatio	Marios Constantinid e s, John Dowell, David Johson, Sylvain Malacria	August, 2015	1. Identification of news reader types 2. Interaction logging and classification study. 3. Deployment and data collection 4. Predicting News reader types. 5. Adaptive UI
3.	Detection and Tracking in News Articles	Sagar Patel, Sanket Suthar, Sandip Patel, Neha Patel.	March, 2015	1. Pre- processing 2. Tokenization 3. Stemming/L emmization 4. Vector Space Model 5. Topic tracking
4.	Following the Fed with a News Tracker	Michael William McCrack	January, 2012	The paper is not a technical paper but is essentially a statistical paper on how should one conclude whether the data have come in stronger, weaker or as expected. This is based on the CitiGroup U.S Economic Surprise Index.

2.3 Reference:

1. Hulth A. Combining machine learning and natural language processing for automatic keyword extraction. Stockholm University, Faculty of Social Sciences, Department of Computer and Systems Sciences (together with KTH), 2004.

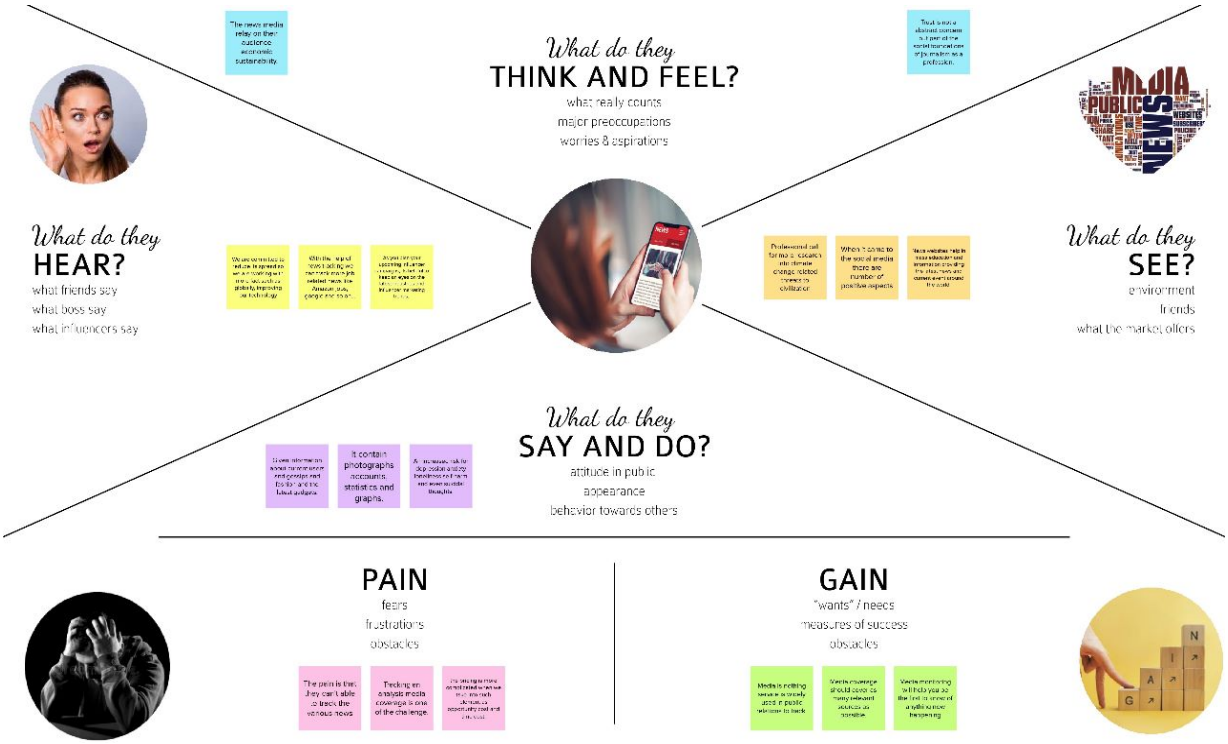
2. Anton Mykhailiuk, A creation of the linguistic ontology based on astructured electronic encyclopedic resource, Anton Mykhailiuk, Olena Mykhailiuk, Oleksiy Pylypchuk, Volodymyr Tarasenko, International Journal of Computing, 13(1) 2014, 1-2.

3. Role of Natural Language Processing in Community Structure Detection - http://www.academia.edu/768236/Role_of_Natural_Language_Processing.

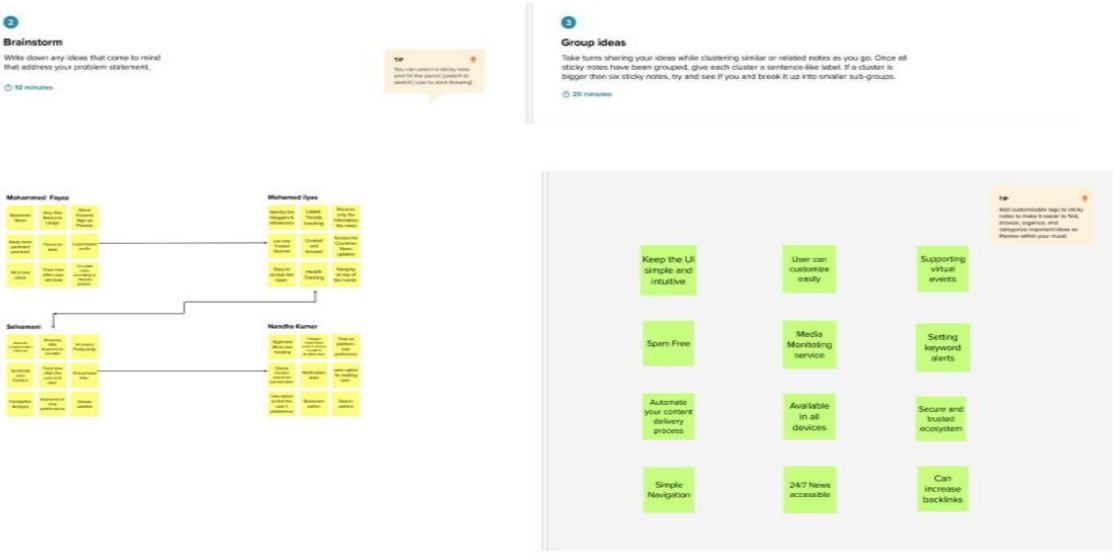
3.IDEATION AND PROPOSED SOLUTION

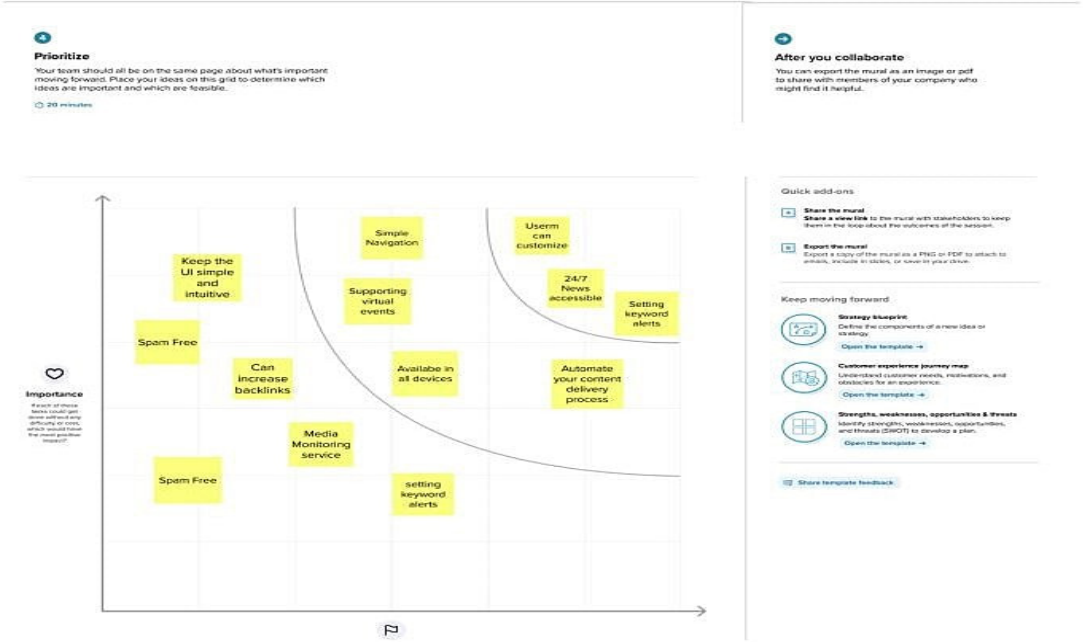
3.1 Empathy Map Canvas:

Well, that's not possible but reducing the time by changing the conventional method of reading news can help. Just tell us what market news you're interested in and get a quick peek for the day.



3.2. Ideation and Brainstorming





3.3 Proposed Solution:

Customer Problem Statement Template: Jhon is a busy business man who needs to read news on the go without any hassles while travelling because he considers carrying around a physical newspaper a nuisance to him and the people around him. He needs to read needs to read news in such a way that he doesn't have to worry about ever buying physical newspapers or carrying with him everywhere. Something which should fit in the palm of his hands, which he could carry everywhere, access from everywhere, something digital such as an application hosted on the internet which could be accessed from any device that is connected to the Internet. Such as smartphones and computers.

Question	Description
Who does the problem affect?	Customers such as Jhon.
What are the boundaries of the problem?	geographic, workflow, daily life
What is the issue?	Physical newspapers are old fashioned in this digital era. They cost money to buy, can easily be damaged, limited amount of information, not flexible to modifications, poor quality. Fixing these in such a way can make physical newspapers become extinct and their use can be abolished. If the problem isn't solved, it would become a greater problem to integrate people to become digitally aware
When does this issue occur?	The issue occurs when the customer wants to read the news.
Where is the issue occurring?	The issue occurs when people try to access information i.e., during the usage. Accessing information is flawed through the usage of physical newspapers in the digital era.

4.Requirement Analysis

4.1 Non Functional Requirement

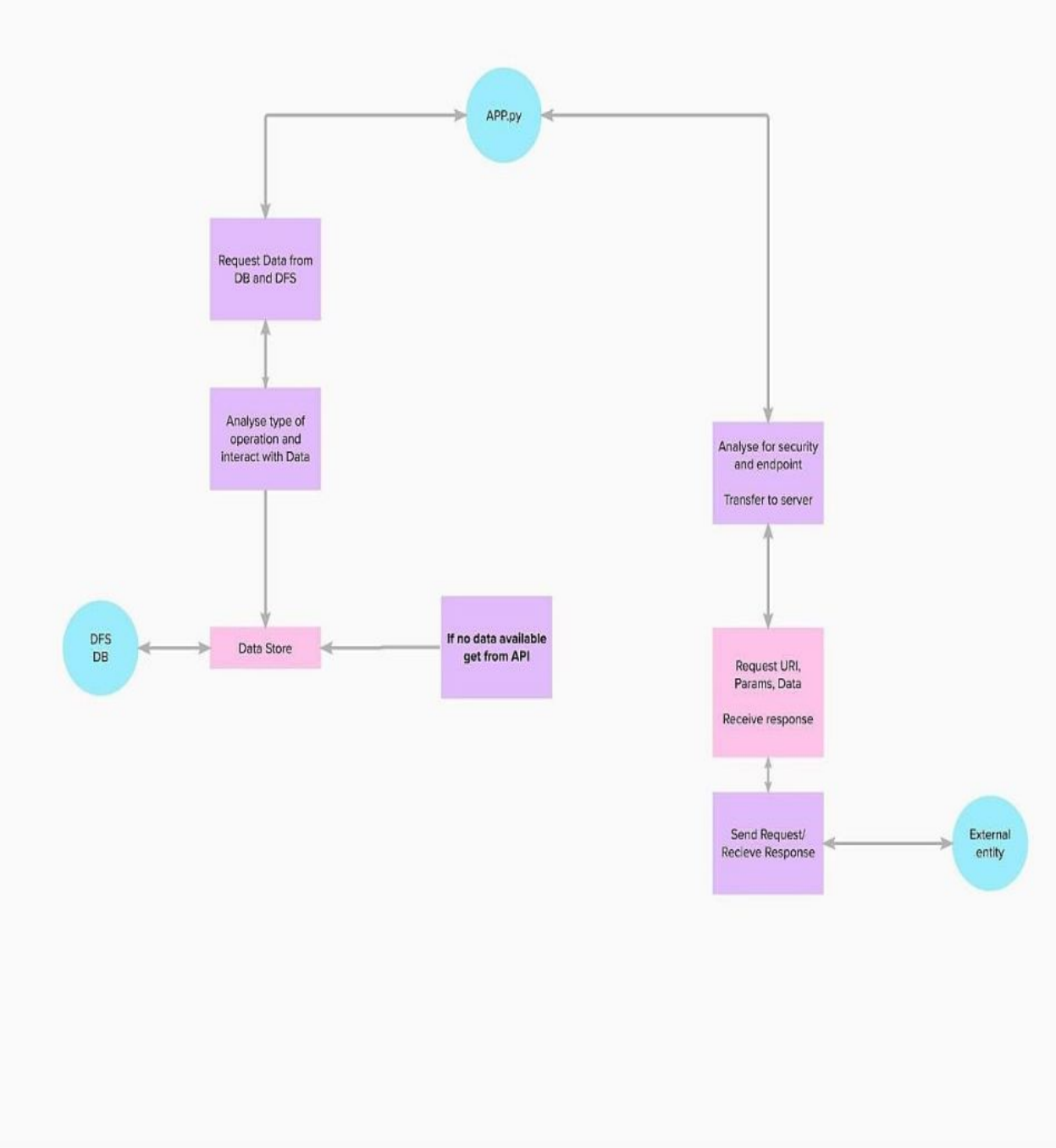
FR No.	**Non-Functional Requirement**	**Description**
NFR-1	**Usability**	Clean UI/UX Principles Less ads, faster loadtimes Providing Adequate data
NFR-2	**Security**	Reverse XSS , Oauth Logging and monitoring for Security Broken access control Lazy loading
NFR-3	**Reliability**	Consistent Load time Logging and monitoring for Flaws NFR-4 Performance
NFR-4	**Performance**	Improving load times with local DB

4.2 Functional Requirement

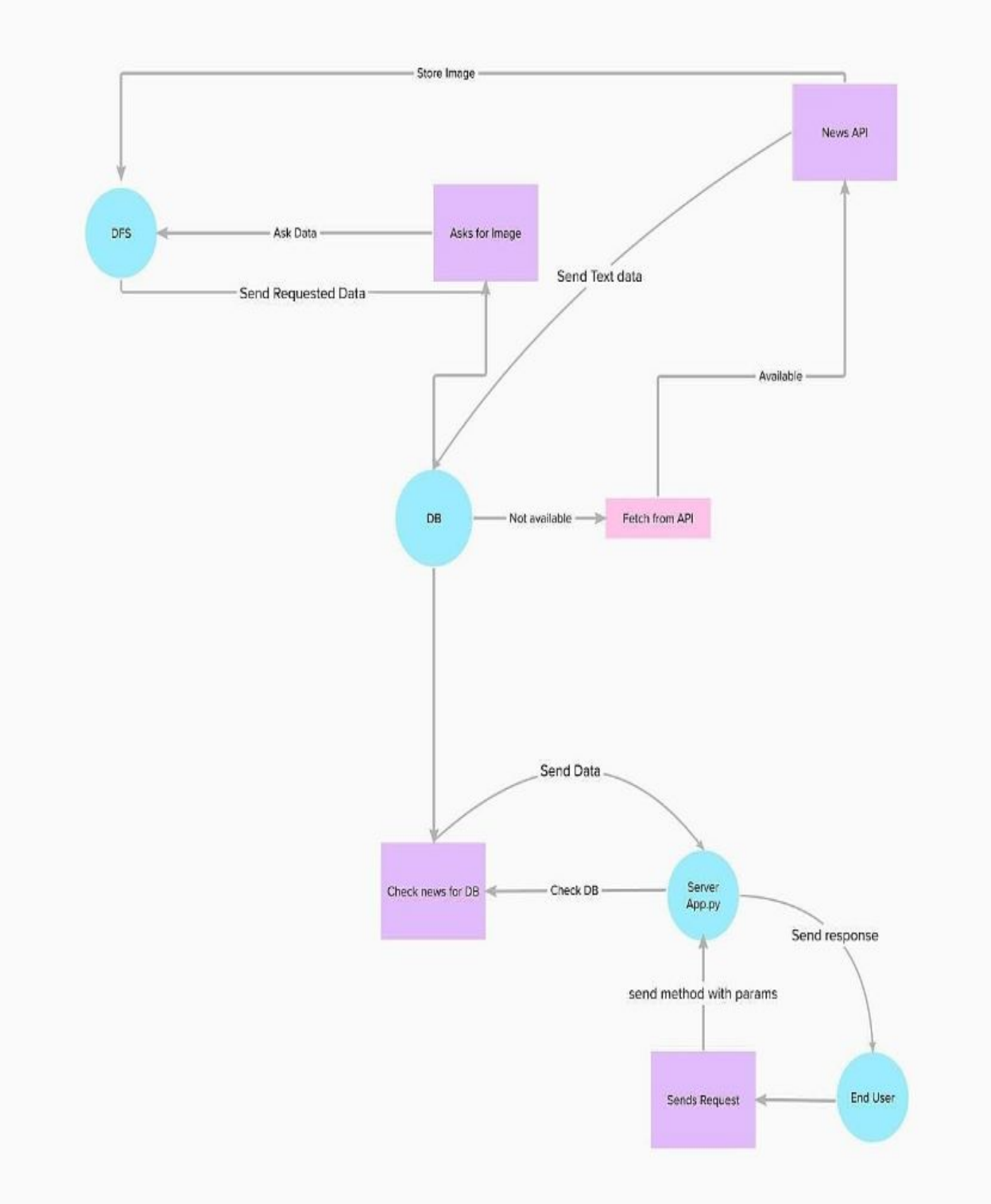
FR No.	**Functional Requirement (Epic)**	**Sub Requirement (Story / Sub-Task)**
FR-1	User Registration	Registration through Form Registration through Auth
FR-2	User Confirmation	Confirmation via OTP
FR-3	Fetch News Items	DB Registration of user Input news items into common table with PK PK mapping of news items to users
FR-4	Interactions likes,dislikes,save	PK mapping to individual interaction tables Foriegn key mapping for safe deletion
FR-5	User Stickiness	L7 mapping (browser based cache system for user identification and authentication)

5. PROJECT DESIGN

5.1 Data Flow Diagram



5.2 Solution and Technical Architecture



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register through my gmail account	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can access my account without integrations	High	Sprint-1
	Dashboard	USN-6	As a user I should be able to navigate and access all the features hassle free	The UI is clear with all features and apt themeing	High	Sprint-2
Customer (Web user)	Layout	USN-7	As a user I should be able to access the portal with different devices with the same comfort	I can access the portal through all my devices	Medium	Sprint-1
Customer Care Executive	User Segregation and data access	USN-8	As a CC executive I should be able to uniquely identify the customer and offer help	I can provide support with logs and data provided	Low	Sprint-2
Administrator	Change code	USN-9	As a administrator I should be able to modify code according to the future requirements.	I can access the code and the code is concise	High	Sprint-1

	Monitor the system	USN-10	As a administrator I should be able to monitor the cloud system and fix errors before customer.	I can monitor the health and stats of the cloud system	Medium	Sprint-2

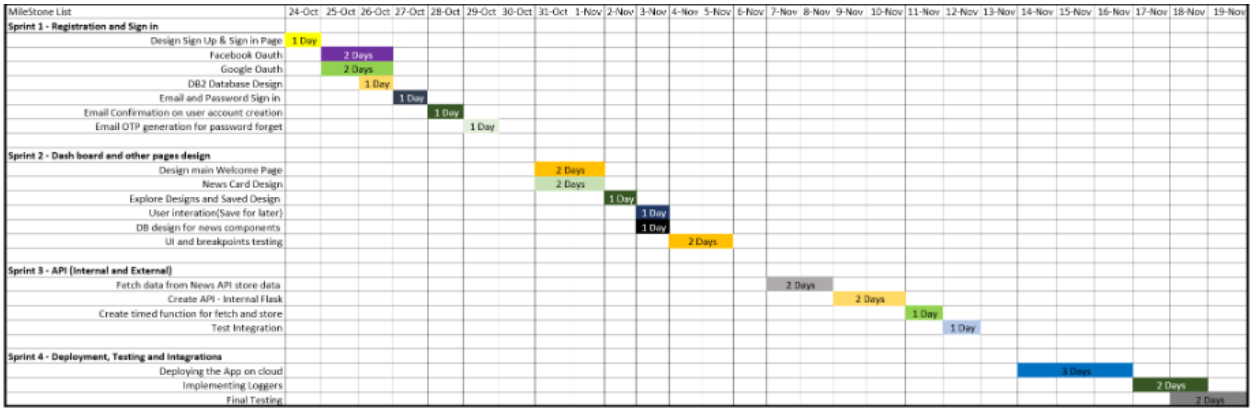
6. PROJECT PLANNINNG AND SCHEDULING

6.1 Sprint planning and estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1		USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Mohamed Ilyas
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Nandha Kumar, Mohamed Ilyas
Sprint-1		USN-3	As a user, I can register for the application through Facebook	2	Low	Selvamani, Mohamed Fayaz
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	Nandha Kumar, Selvamani
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Mohamed Fayaz
Sprint-2	Dashboard	USN-6	As a user I should be able to navigate and access all the features hassle free	2	High	Nandha Kumar, Mohamed Fayaz

Sprint-2	Layout	USN-7	As a user I should be able to access the portal with different devices with the same comfort	2	High	Mohamed Fayaz
Sprint-3	User Segregation and data access	USN-8	Get Data from API and store as JSON in DB2	3	High	Selvamani
Sprint-3		USN-9	Get bin data from API and store in DFS	2	High	Nandha Kumar
Sprint-4	User Segregation and data access	USN-10	As a CC executive I should be able to uniquely identify the customer and offer help	1	Low	Mohamed Ilyas
Sprint-4	Change code	USN-11	As a administrator I should be able to modify code according to the future requirements.	2	Medium	Mohamed Fayaz, Selvamani
Sprint-4	Monitor the system	USN-12	As a administrator I should be able to monitor the cloud system and fix errors before customer	1	High	Mohamed Ilyas, Selvamani, Nandha Kumar

6.2 Reports on JIRA

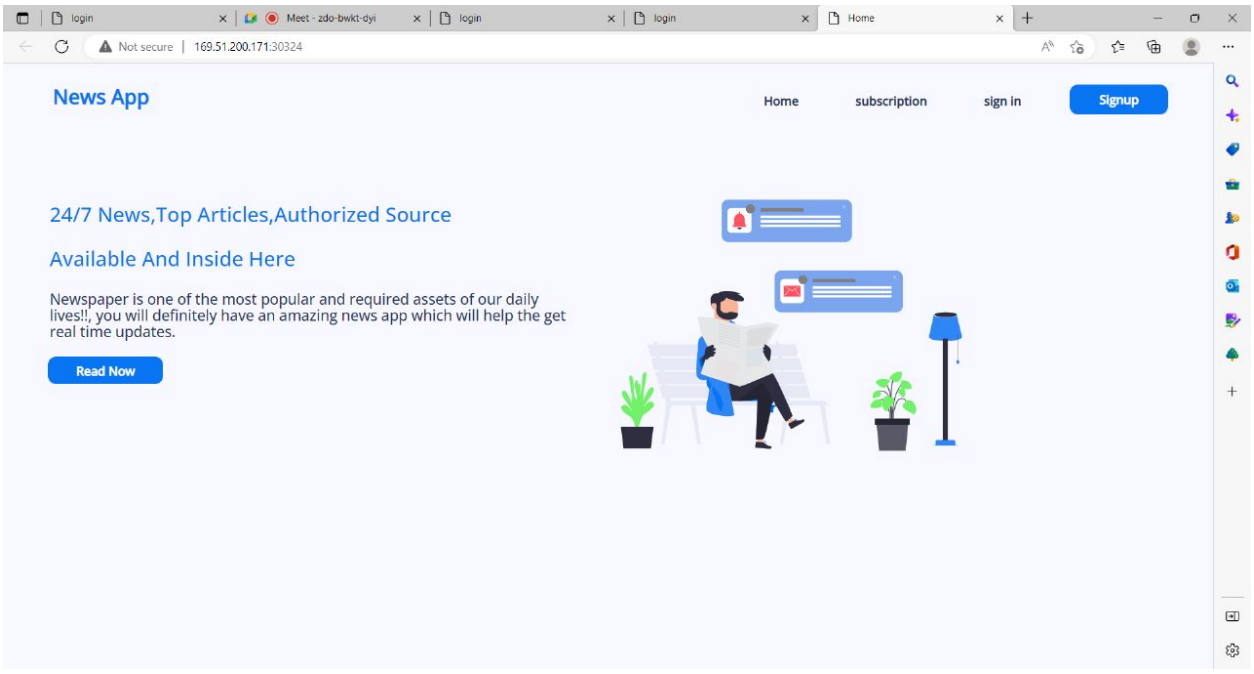


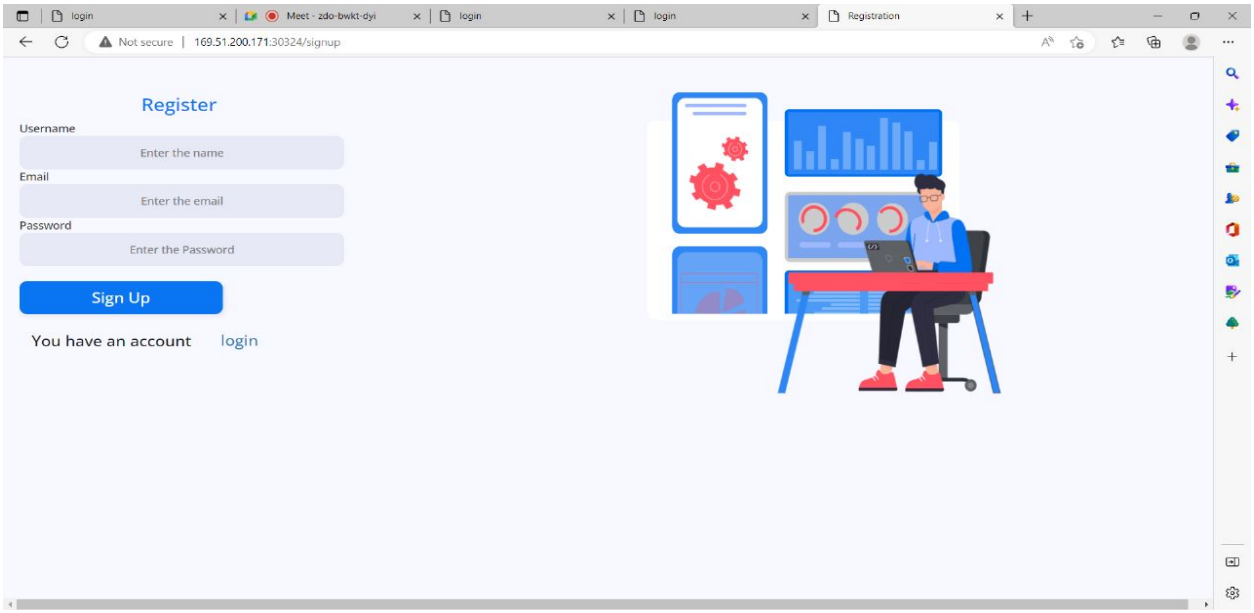
7.CODING

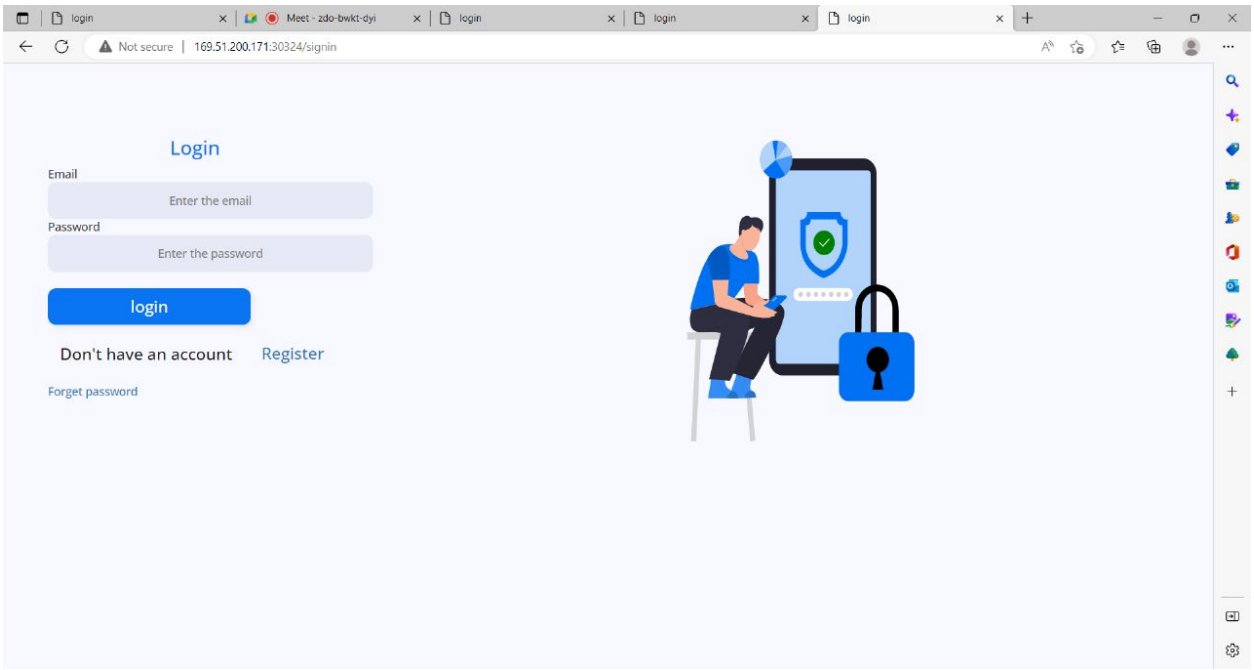
GITHUB REPO LINK :

https://github.com/IBM-EPBL/IBM-Project-29936-1668681242

8.Screenshots



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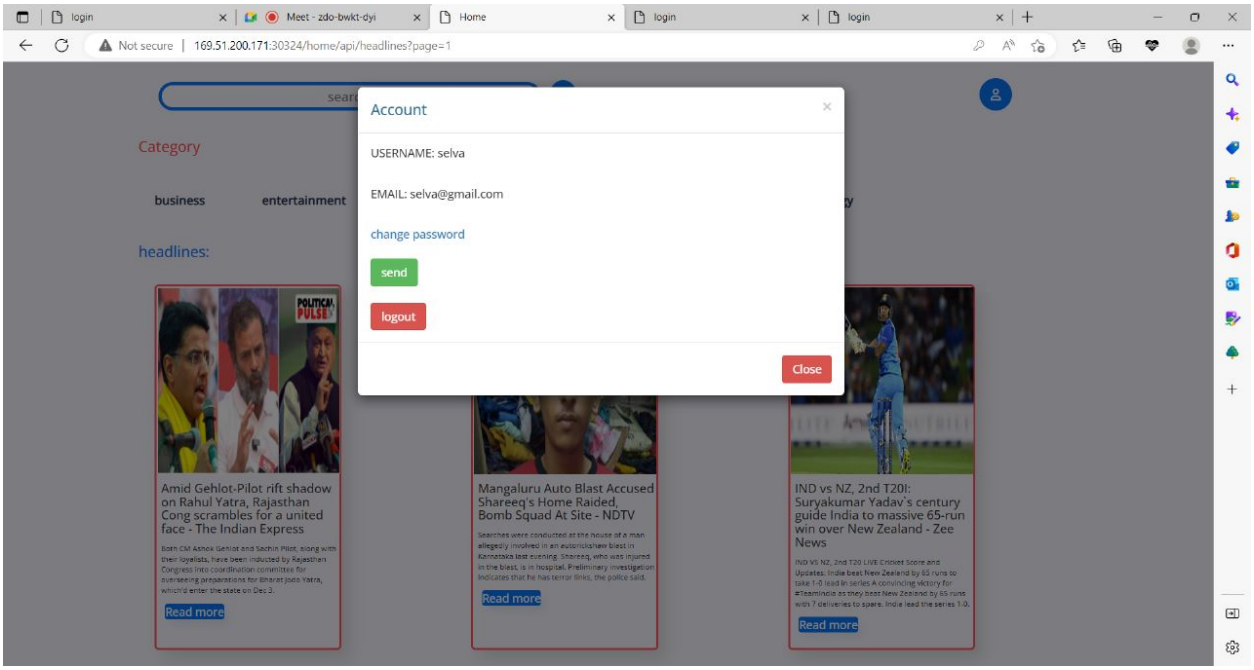
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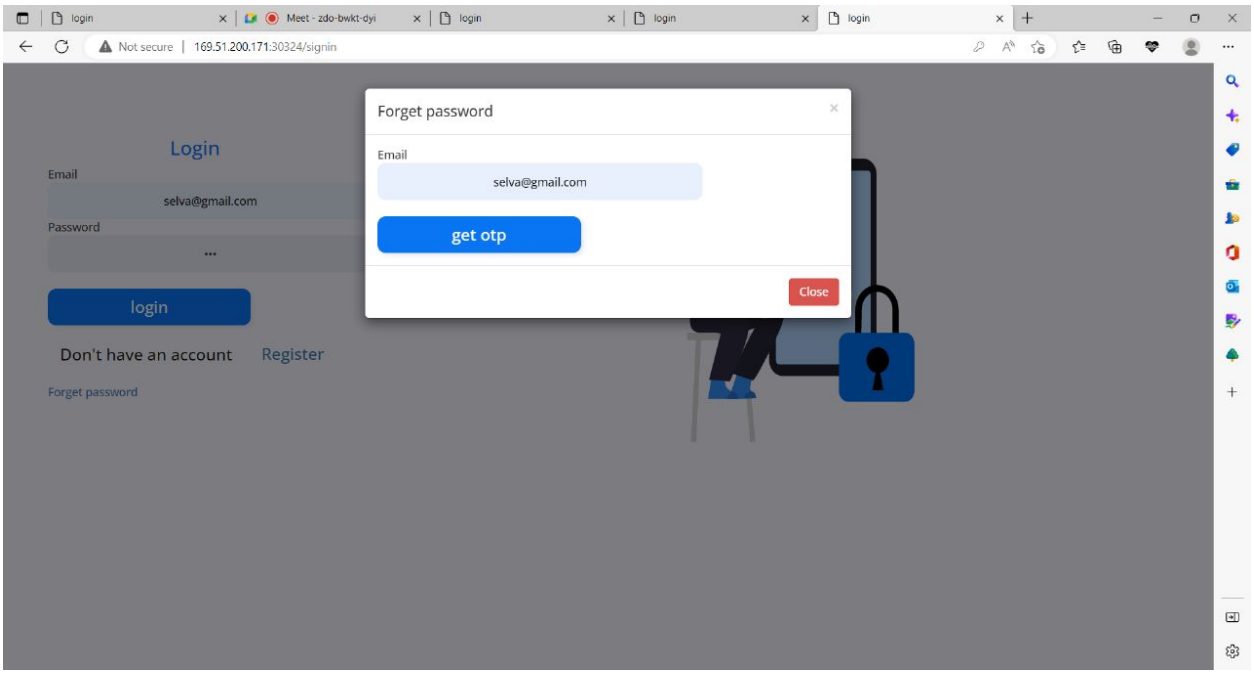
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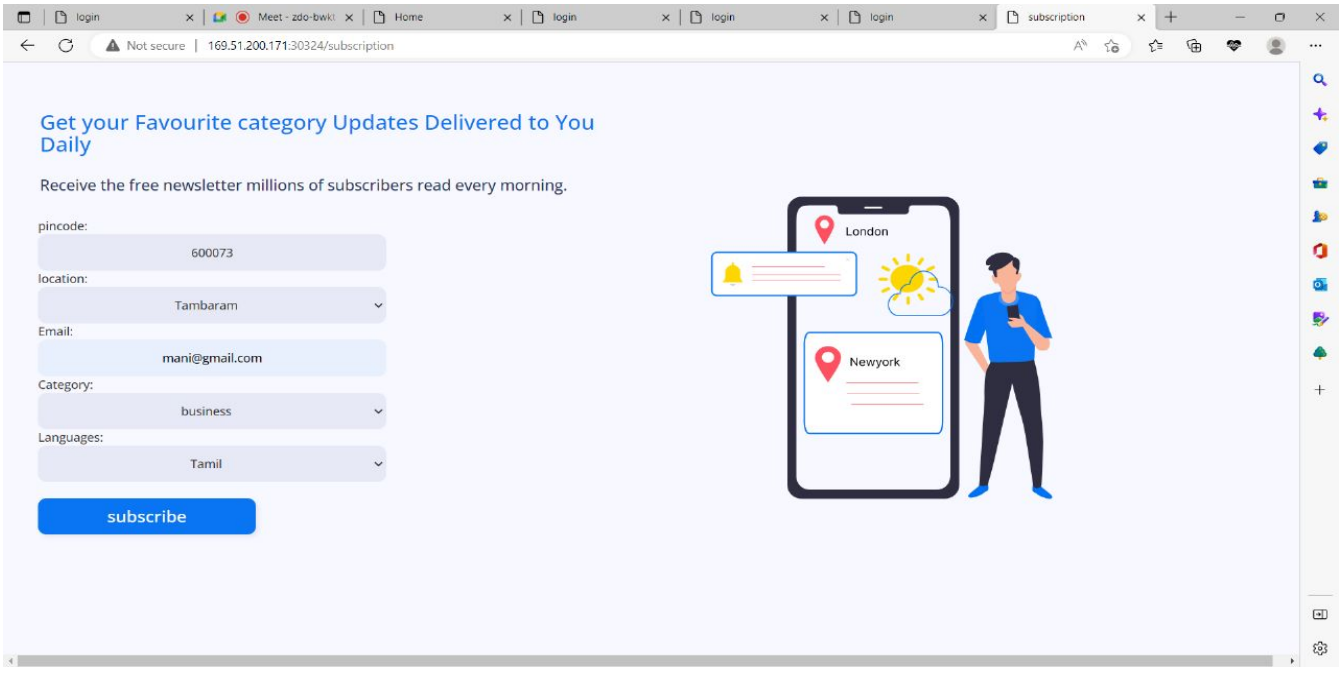
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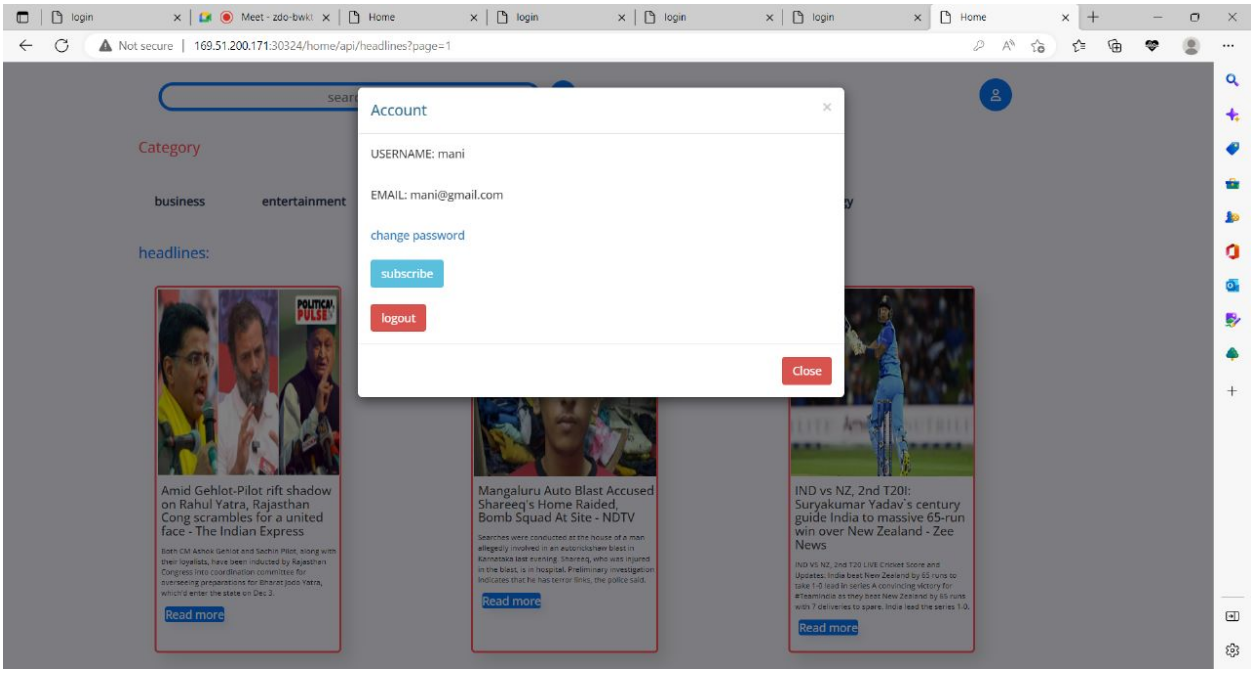
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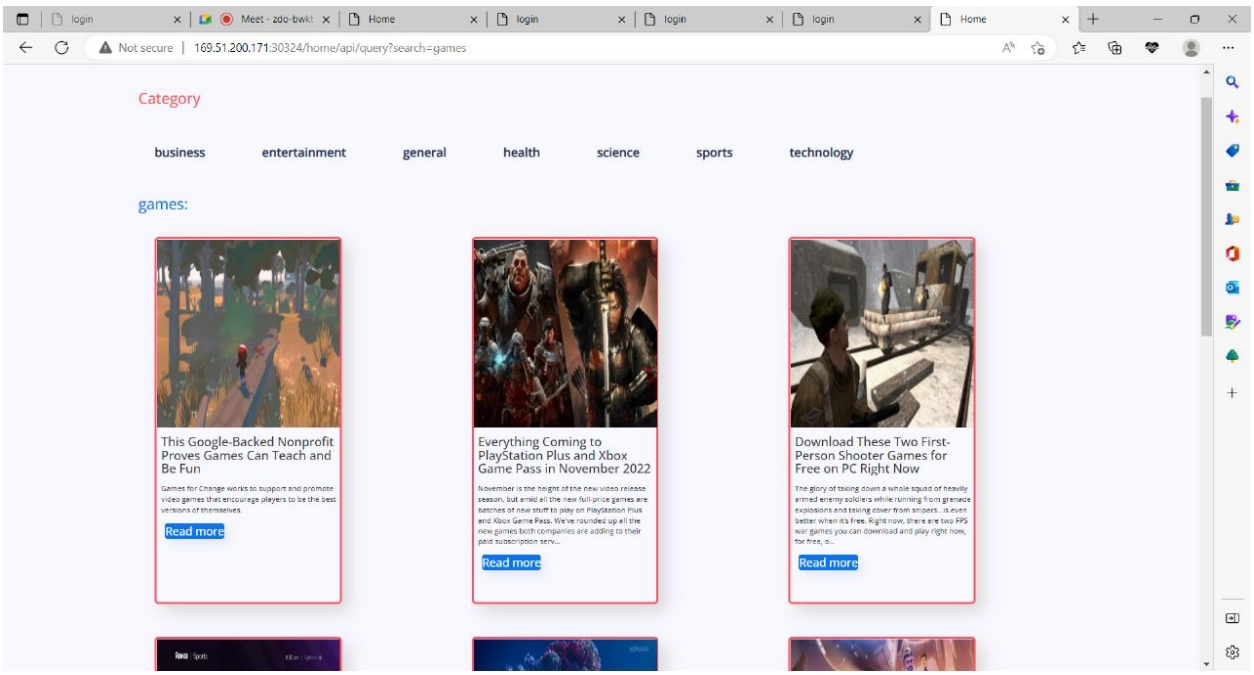
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9.CONCLUSION

Thus our application is a big interactive database that tells us the news everyday.This will help the users to share news on various platforms. This will not only give an amazing userexperience and also will increase the views. Readers can now leave comments, view photos, slideshowand often times contribute their own opinion and written pieces to the paper.