

PROJECT REPORT

PROJECT NAME : NEWS TRACKER APPLICATION

Team ID : PNT2022TMID31941

1. INTRODUCTION

- a. Project Overview
- b. Purpose

2. LITERATURE SURVEY

- a. Existing problem
- b. References
- c. Problem Statement Definition

3. IDEATION & PROPOSED SOLUTION

- a. Empathy Map Canvas
- b. Ideation & Brainstorming
- c. Proposed Solution
- d. Problem Solution fit

4. REQUIREMENT ANALYSIS

- a. Functional requirement
- b. Non-Functional requirements

5. PROJECT DESIGN

- a. Data Flow Diagrams
- b. Solution& Technical Architecture
- c. User Stories

6. PROJECT PLANNING& SCHEDULING

- a. Sprint Planning& Estimation
- b. Sprint DeliverySchedule

7. DATABASE CODING & SOLUTIONING

- a. DatabaseSchema(if Applicable)

8. ADVANTAGES & DISADVANTAGES

9. CONCLUSION

10. FUTURE SCOPE

11. APPENDIX

- a. source code
- b.livepage url
- c.video demo link

1. INTRODUCTION

a. Project Overview

NewsTracker is a fullstack web application which allows users to register along with their favourite topics, upon login the app displays the news based on the user's interest.

The news displayed in the app is based on the Newcatcher API and Cricbuzz API from Rapid API site. A news-sharing app wants to help users find relevant and important news easily every day and also provide explicitly news from that user's locality/region which may be of help to the user.

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.

b. Purpose

Enabling users to view news from anywhere at anytime. It also helps to reduce the time to get information about a specific topic. Also enables a person to get an updated news which may help Business people to make business related decisions quickly and correctly.

2. LITERATURE SURVEY

a. Existing problem

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. Sometimes may show irrelevant and outdated news.

b. References

S n o	Paper title	Author	Publish ed date	Implementation	Resource link

1	Following the Fed with a News Tracker	Michael William McCracken	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.	(PDF) Following the Fed with a News Tracker (researchgate.net)
2	Topic Detection and Tracking in News Articles	Sagar Patel, Sanket Suthar, Sandip Patel, Neha Patel	March, 2015	<ol style="list-style-type: none"> 1. Pre-processing 2. Tokenization 3. Stemming/Lemmatization 4. Vector Space Model 5. Topic tracking 	(PDF) Topic Detection and Tracking in News Articles (researchgate.net)
3	An End-to-end Weakly-supervised 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 and aggregate unlabeled news texts and ultimately generate visualized results containing news categories, news topics, and temporal topic relationships. This paper uses constructed knowledge thesaurus and the Snorkel method to weakly supervise the classification of unlabeled news with no manual tagging. Subsequently, we utilize LDA to generate the topics and	An End-to-end Weakly-supervised News Aggregation Framework Request PDF (researchgate.net)

				obtain the signal value of each topic based on the topic signal detection function. Finally, we establish the temporal topic relationships and get the visualized results of news aggregation.	
4	Exploring mobile news reading interactions for news app personalisation	Marios Constantinides, John Dowell, David Johson, Sylvain Malacria	August, 2015	<ol style="list-style-type: none"> 1. Identification of newsreader types 2. Interaction logging and classification study 3. Deployment and data collection 4. Predicting News reader types 5. Adaptive UI 	(PDF) Exploring mobile news reading interactions for news app personalisation (researchgate.net)
5	Innovative Application For NewsTracker	Dr.C.K.Gomathy, Dr.V.Geetha, Peddireddy Abhiram, Marios Constantinides	September, 2020	This paper aimed at developing an online news management system that is of information to either a college. Online news management system provides a simple interface for maintenance of college information. The creation management of accurate, up-to-date information regarding to college. The main objective for developing this project is provide all the functionality	(PDF) The Innovative Application for News Management System (researchgate.net)

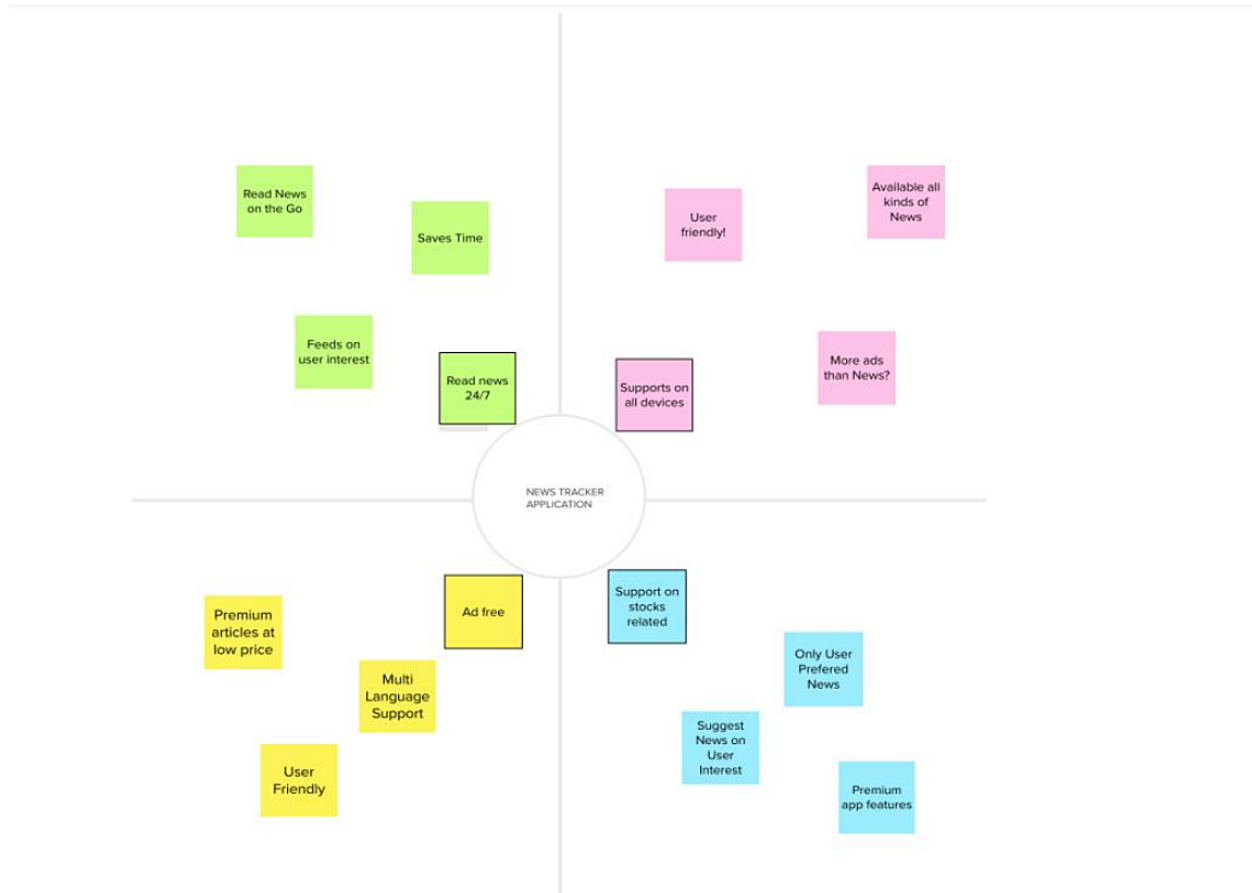
				related to latest news and it tracks.	
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b. Problem Statement Definition

Newspaper contains limited , non user/reader specific, Location specific news . There are multiple news-sharing apps available which can be used by a single user and are often spammed with notifications. There is also a lot of unwanted news which gets shared. So it may take a lot of time for the user to find the news he/she likes. A news-sharing app wants to help users find relevant and important news easily every day and also provide explicitly news from that user's locality/region which may be of help to the user.

3. IDEATION & PROPOSED SOLUTION

a. Empathy map canvas



Empathy Map Canvas

b. Ideation & Brainstorming

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Team Gathering, Collaboration and Select the Problem Statement and Brainstorm Empathize.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>The user needs a way to get relevant news based on his choices so that the user does not have to spend a lot of time on searching news.</p> <p>News is filled with ads and spams annoys and irritates the user and affects the user experience.</p>
2.	Idea / Solution description	<p>A cloud-based web application which enables the user to get the news as per their interests, choices and location.</p> <p>News will be filtered as per the user's wish and it will be displayed to the user.</p>
3.	Novelty / Uniqueness	<p>This news tracker has features that enables the user to view news about crimes and health updates happening in and around their location. This will be given the most priority as it is important to every person to be aware of recent happenings.</p> <p>The tracker app does not have annoying ads.</p>
4.	Social Impact / Customer Satisfaction	<p>The user will not have to spend a lot of time in searching for the relevant news.</p> <p>The customer will be finally able to view news without ads.</p>

		<p>Since we are using the News API, the news will be reliable and accurate.</p> <p>The customer can be aware of recent happenings.</p>
5.	Business Model (Revenue Model)	<p>The model will generate revenue through offering few premium features to user.</p> <p>The features include seeing stories from the user's favourite publishers, regional news, few regional languages.</p> <p>The default language will be English.</p>
6.	Scalability of the Solution	<p>Since the web application is deployed on IBM cloud, it can handle multiple users at a time.</p> <p>The user will go through a seamless experience and it enables them to view the news according to their interests and choices.</p> <p>Users from all age category can use the application and the news can also be filtered according to their age.</p>

d. Problem Solution fit

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) Nowadays, people are busy in their life have so many works in between times they do not have time to read the newspaper.	6. CUSTOMER CONSTRAINTS Customer mainly to if use the application is they need networks connections, GPS for to feed the news based on their locations.	5. AVAILABLE SOLUTIONS In this news tracker application to feed the most of all news on global covered and read whenever have time and also search the particular news.	Explore AS, differentiate

Focus on JSP, tap into BE, understand RC	2. JOBS-TO-BE-DONE / PROBLEMS • We are addressing that read the news in this century percentage is down so we are develop an application to read the news based on their location and trending location and also have features to user can search particular news in search engine.	9. PROBLEM ROOT CAUSE * In this era customer or people do not have time to sit and relaxly to read the news and the main reason is time management.	7. BEHAVIOUR To search the news only customer can not do anything beyond the news searching.	Focus on JSP, tap into BE, understand RC

— P O P —

3. TRIGGERS We have enough features to reach the application. It is daily use application so we handle it safe & secure.	10. YOUR SOLUTION Here we provide the easily get their daily news on easily in less time and also have feature to search the news on search engine and also have feed the news based on their location.	8. CHANNELS of BEHAVIOUR #1 ONLINE Customer can see the recent feed news. #2 OFFLINE See the last seen news.
4. EMOTIONS: BEFORE / AFTER Before : people use the application reading listening the application percentage is low and people don't have social awareness, global activity politics. After : then if they use this application have many features to interact the people and engage people daily updates and it is easily use on their free time.		

4. REQUIREMENT ANALYSIS

a. Functional requirement

FR No.	Functional Requirement(Epic)	Sub Requirement (Story / Sub-Task)
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FR-1	User Registration	Registration through Email
FR-2	User Confirmation	Confirmation via Email using Sendgrid
FR-3	User Preferred Topics	Collecting user's favourite topics
FR-4	Collecting News	Collecting news from rapid API at regular intervals
FR-5	Bookmark	Bookmarking Favourite news for the user
FR-6	Login	Logging in the user using the registered email and password
FR-7	News Feed	Showing the news fetched from the API to the user

b. Non-Functional requirements

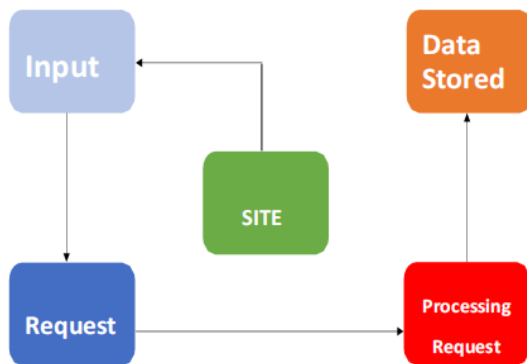
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The app should be able to be used by all people
NFR-2	Security	The app should authenticate the legitimate users and should restrict bot attacks
NFR-3	Reliability	The app should show the news which are non-fake and spam-free
NFR-4	Performance	The app should be accessible in older devices too
NFR-5	Availability	The app should be available to all devices
NFR-6	Scalability	The app should handle multiple users and be designed in such a way for future upgrade

5. PROJECT DESIGN

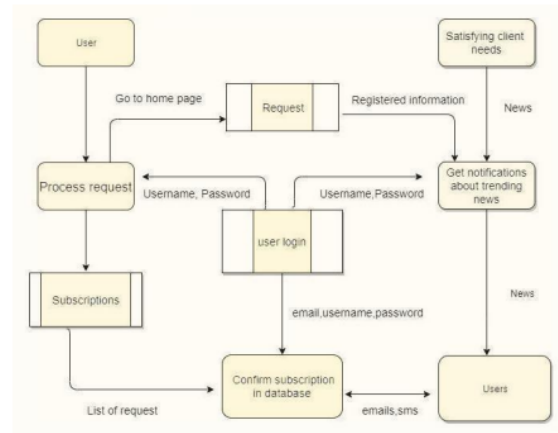
a. Data Flow Diagrams

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 is stored.

Simplified:

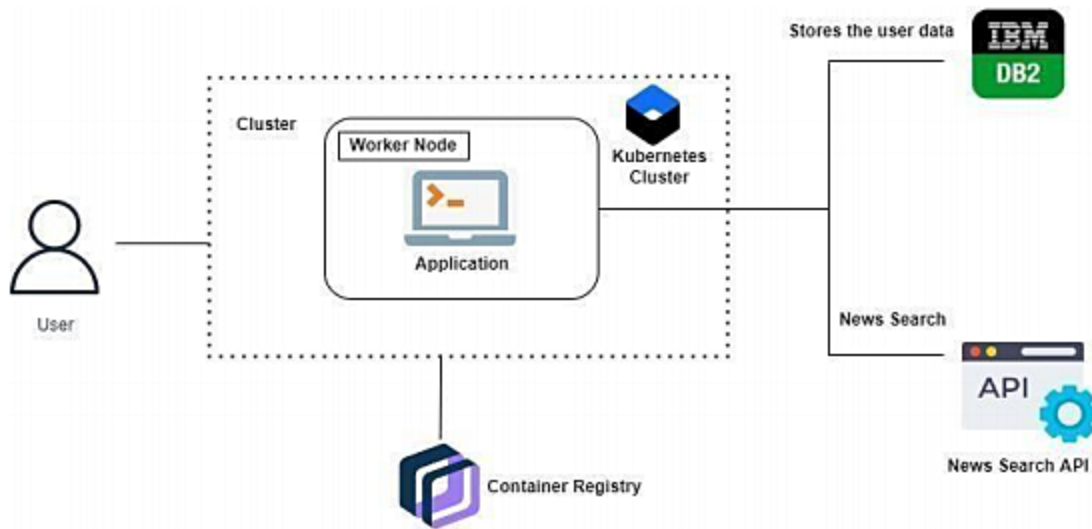


DFD Level 0 (Industry Standard):



b. Solution & Technical Architecture

Technical Architecture:



S.No	Component	Description	Technology
1.	User Interface	The user can interact with the application to know about the trending news	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	The application contains this resource gives you basic understanding of Flask.	Flask.
3.	Application Logic-2	The application contains the news sub-division like geographical news, economic news and society news.	IBM Watson STT service
4.	Application Logic-3	The user can view the growth of the economy in industry through graph.	IBM Watson Assistant
5.	Database	Updating of trending news are stored in the MySQL database.	MySQL, NoSQL, etc.
6.	Cloud Database	With the use of cloud, media coverage issue cannot be occurred.	IBM DB2.

C.User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Normal 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
	Login	USN-4	As a user, I can login with the email and password into the app	I can access to all the news	High	Sprint-1
	Dashboard	USN-5	As a user, I can see all the news under specific tab	I can view all the news	Medium	Sprint-3
	Home	USN-6	As a user, I can bookmark my favourite news topics	I can later view my bookmarked news	Low	Sprint-2
	Access	USN-7	As a user, I can access the site anywhere and everywhere	I can view the site by typing the URL of the site	High	Sprint-4

6. PROJECT PLANNING & SCHEDULING

a. 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	Ragupathy
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Ragupathy
Sprint-1		USN-3	As a user, I can register for the application through Facebook	2	Low	SathishKumar
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	Sathishkumar
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Ragupathy
Sprint-2	Dashboard	USN-6	As a user I should be able to navigate and access all the features hassle free	2	High	Santhosh
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	Santhosh
Sprint-3	Data Store and retrieval	USN-8	Get Data from API and store as JSON in DB2	3	High	Dhanasiva
Sprint-3		USN-9	Get bin data from API and store in DFS	2	High	Dhanasiva
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	Sathishkumar

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Change code	USN-11	As an administrator I should be able to modify code according to the future requirements.	2	Medium	Ragupathy
Sprint-4	Monitor the system	USN-12	As an administrator I should be able to monitor the cloud system and fix errors before customer.	1	High	Dhanasiva

b. 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

7. DATABASE CODING & SOLUTIONS

a.DATABASE SCHEMA TABLE:

FULLNAME USERNAME PASSWORD		
	admin	Raghav56
	Sathish	Sathish123
	Raghav	Raghav123
	Sandheep	San@12

8. ADVANTAGES & DISADVANTAGES

1. This app can be accessed anywhere and anytime, So that the user can view the news
2. Its ad free
3. The news is only based on the API
4. It may contain some unwanted content but we don't have control over it

5. The user can bookmark their favourite news.

9. CONCLUSION

Thus we have developed a full stack application based on the plans and within the given time. We have tested the application in both desktop and mobile and it worked well, Overall it was a great experience.

10. FUTURE SCOPE

In future we may integrate our own news API instead of third party APIs and may develop a mobile native application so that it can be used in both android and ios.

11. APPENDIX

1. [Source Code \(Github\)](#)
2. [Live Page URL](#)
3. [Video Demo Link](#)