

NEWS TRACKER APPLICATION – PROJECT REPORT

Date	19 November 2022
Team ID	PNT2022TMID04044
Project Name	News Tracker Application

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.

1.2 Purpose

The purpose of this project is to make the things we enjoy a little simpler in these busy days. Most of us have the habit of reading news, but are overwhelmed by the unwanted news that are notified with the ones we love. Sometimes the unwanted news spoils our mood. The purpose of this project is to allow users to specify the categories they like to be notified and send notification based on their own preferences.

2. LITERATURE SURVEY

2.1 Existing problem

Surya 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. Surya 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.

2.2 Problem Statement Definition

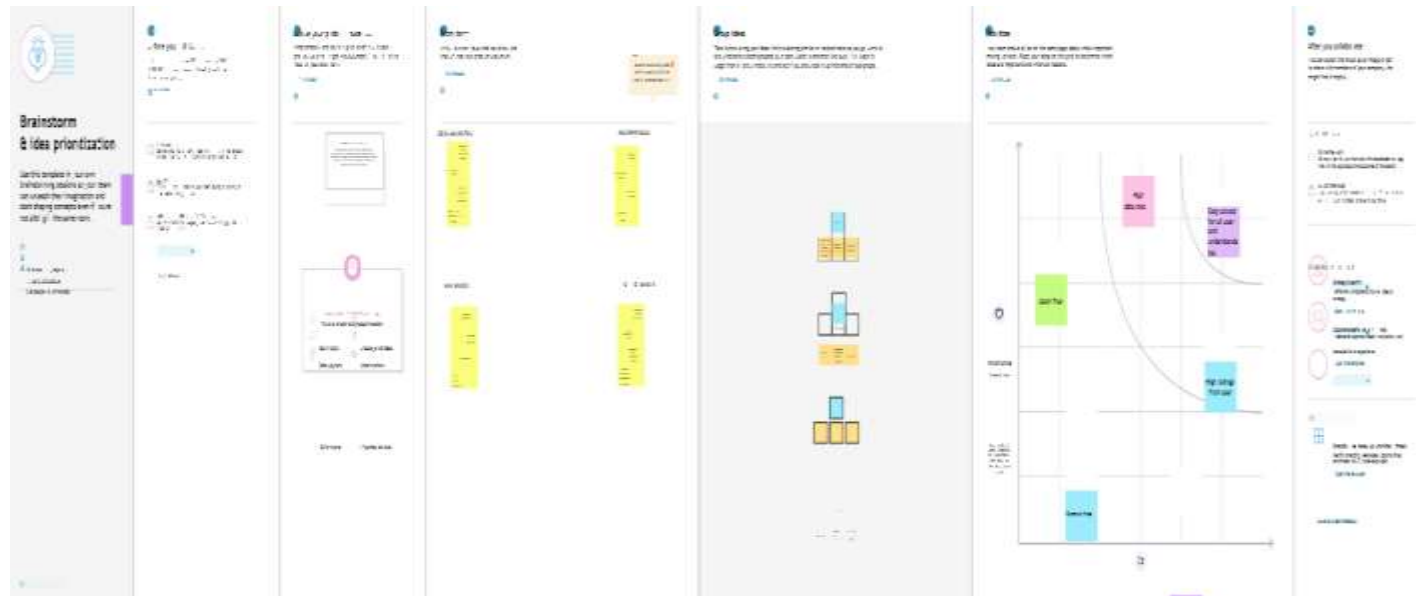
Physical newspapers are old fashioned in this digital era. They cost money to buy, can easily be damaged, limited amount of information, not flexible to modifications, poor quality. Fixing these in such a way can make physical newspapers become extinct and their use can be abolished. If the problem isn't solved, it would become a greater problem to integrate people to become digitally aware. The issue occurs when the customer wants to read the news. The issue occurs when people try to access information during the usage. Accessing information is flawed through the usage of physical newspapers in the digital era. It is important to fix this problem because since everything in our day to day life is becoming/being converted to digital from a physical/analog entity. It is necessary to access information from anywhere. It reduces the hassles of getting knowledge and information that has happened before and will promote everyone to know better about the current events that's happening and will motivate everyone to gain a profound knowledge in the field of their interests.

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas



3.2 Ideation & Brainstorming



3.3 Proposed Solution

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. Our idea is we help our users to give their suggested news with their prescribed timing. We give 4 options to every users to choose their suggested news topics like Indices, Commodities, Currencies, Future Rates. If users want short videos for their suggested news we will provide that option also, and our motive is "Only read what you feel is relevant and save your time". Our uniqueness is all users are same no user is superior than other users we treat all users has same. After many discussion we conclude in our application no premium plans or subscription our entire application is a premium so we didn't want any other plans. After launching of this application many peoples burden will reduce of this news reading. This will create huge benefit for customers to at what they want to read the news or watching the news in their scheduled time.

3.4 Problem Solution Fit

1. CUSTOMER SEGMENT(S) <ul style="list-style-type: none"> People who don't have time to read the newspaper People who like to see more relevant stories People who can't physically carry newspaper People who want to know instant update 	6. CUSTOMER LIMITATIONS <ul style="list-style-type: none"> Network connectivity – provide offline access Lack of personalization Inability to escape spam or clickbait content Inability to group articles together while bookmarking during research 	5. AVAILABLE SOLUTIONS <ul style="list-style-type: none"> User can follow favorite topics and people User can block a genre from showing up in their feed Availability of a separate general feed and customized feed
2. PROBLEMS <ul style="list-style-type: none"> There is a lack of filter for non-trustworthy publishers in the existing solutions. It is hard to cross verify stories across multiple resources It is hard to track particular issue It is hard to filter out spam 	3. PROBLEM ROOT / CAUSE <ul style="list-style-type: none"> No customization option for users No feedback system for users No filters for spam or clickbait content No offline access for users No options to customize notifications 	7. BEHAVIOUR <ul style="list-style-type: none"> User manually finds different sources of information to verify a story User saves the stories privately in a medium of their own during research work User manually searches stories to track an issue since its beginning
5. TRIGGERS TO ACT <ul style="list-style-type: none"> The urge to know the day to day happenings like it's today Readers today want great content in easily digestible bits. i.e., don't want to dive too deep through a complex web website to get it 4. EMOTIONS: BEFORE / AFTER <p>Before: Frustrated over irrelevant content, slow updates After: Satisfied</p>	10. YOUR SOLUTION <ul style="list-style-type: none"> A separate segment for day to day happenings as hot headlines Advertisement column to display job vacancies, advertisements Display category wise news as of user's wish to save time Create awareness about the various issues prevailing all over the world 	8. CHANNELS of BEHAVIOR <p>Online:</p> <ul style="list-style-type: none"> User gets to see the live updates when they have internet connectivity The system also downloads stories for them to read if they go offline. <p>Offline:</p> <ul style="list-style-type: none"> The user can browse through the content downloaded when they were online They can rate the quality of downloads

Focus on PR, to plan, pitch, promote, IA, understand BC

Explore AS, differentiate

4. REQUIREMENT ANALYSIS

4.1 Functional requirement

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none">Registration through online applicationRegistration through GmailRegistration through website
FR-2	User Confirmation	<ul style="list-style-type: none">Confirmation via EmailConfirmation via OTP
FR-3	User login	<ul style="list-style-type: none">Login through browser directly by entering username and passwordLogin through email
FR-4	User interaction	<ul style="list-style-type: none">Done through user interface between client and serverView the related news by subscribed or requested page

4.2 Non-Functional requirements

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

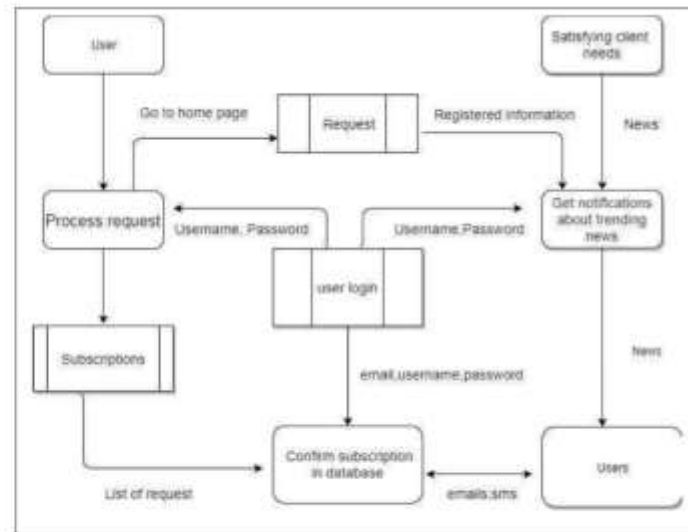
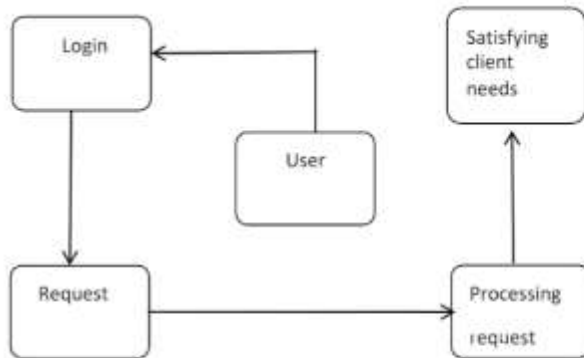
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	By subscribing to the website's news feed, end users can receive push notifications for new information on the site.
NFR- 2	Security	How well are the system and its data protected against attacks
NFR-3	Reliability	<ul style="list-style-type: none">How frequently do the system's critical failures occur?How long does it take to resolve the problem once it occurs?And how does downtime compare to user availability time?

NFR-4	Performance	<p>The primary non-functional criteria that every system must have is performance. It specifies how quickly a software system or a specific component of it reacts to specific user actions while handling a specific workload. Given the current user base as a whole, this statistic often indicates how long a user must wait before the goal operation occurs (the page renders, a transaction is executed, etc.). But it isn't always the case.</p> <p>Performance specifications could list unnoticed by user's background tasks like backup. Let's instead concentrate on user-centric performance.</p>
NFR-5	Availability	<p>Availability refers to the likelihood that a user will be able to use the system at a specific time. You can define it as a percentage of the time the system is available for operation within a given time period, while it can also be represented as an expected percentage of requests that are successful. For instance, during a month, the system might be accessible 98% of the time. Perhaps the most important business requirement is availability, but to define it, you also need to have estimates for dependability and maintainability.</p>
NFR-6	Scalability	<p>Scalability measures the highest workloads that the system can handle while still delivering the required levels of performance. When workloads increase, your system can grow vertically or horizontally using one of two methods.</p>

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 shows how data enters and leaves the system, what changes the information, and where data is stored.



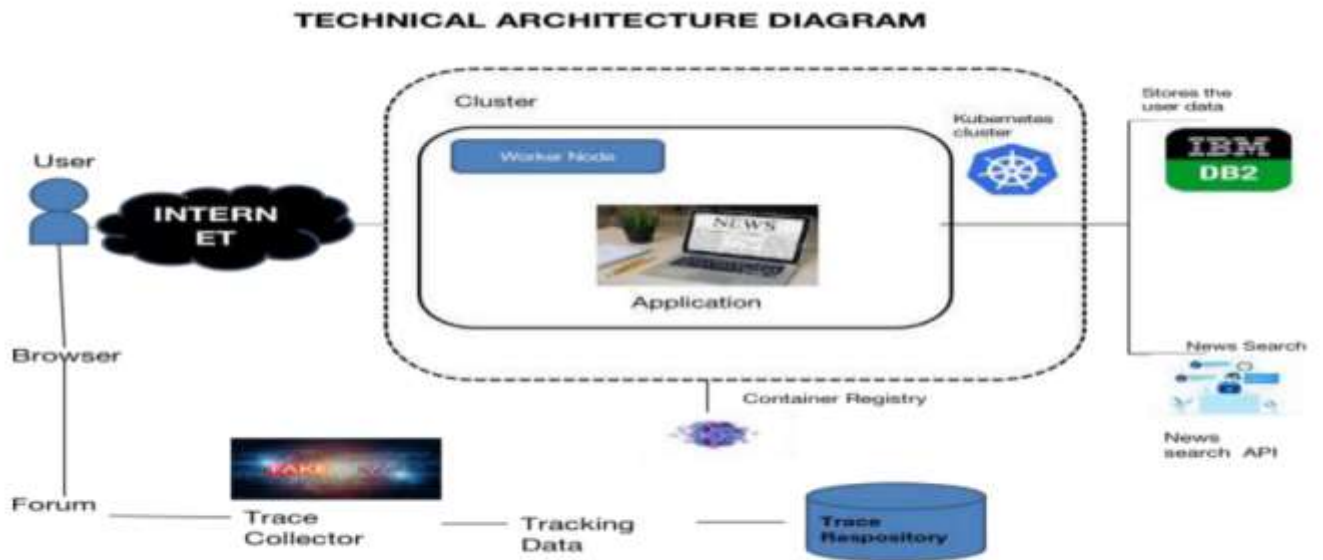
1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the DS.js library.

5.2 Solution & Technical Architecture

Solution architecture is a complex process, with many sub-processes that the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements to the project.
- Provide specifications according to which the solution is defined, managed, and delivered to the customers.

Technical Architecture diagram :



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Web App)	User Login	USN-1	As a user, I can log into the application by entering email & password	I must be able to login	Medium	Sprint-1
	User Registration	USN-2	As a user, I can register for the application by entering my email, password and confirming my password and phone number.	I must be able to register as a new user	High	Sprint-1
	User Search Page	USN-3	Even without logging in User must be able to search for news in the home page	I must be able to view all news	High	Sprint-2
		USN-4	After logging in, news specified in his favorite category must be grouped in the top	I must be able to query through all news	Medium	Sprint-2
		USN-5	I must be able to visit the source news website	I must be redirected to the source website	Low	Sprint-3
	User News Category Selection	USN-6	As a user, I must be able to choose categories based upon my interest	I must be able to change my favorite categories	High	Sprint-3
	User Notification	USN-7	As a user, I must be notified with my favorite news through mail	I must be receiving news based on my interest through mail	High	Sprint-4
		USN-8	As a user I must be able to specify whether I must be notified	I must be able to disable the the notifier	Low	Sprint-4

6. PROJECT PLANNING & SCHEDULING







6.1 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	Nithin Poorna Ragavendra Rohith
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Nithin Poorna Ragavendra Rohith
Sprint-1		USN-3	As a user, I can register for the application through Facebook	2	Low	Nithin Poorna Ragavendra Rohith
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	Nithin Poorna Ragavendra Rohith
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email and password	1	High	Nithin Poorna Ragavendra Rohith
Sprint-2	Dashboard	USN-6	As a user I should be able to navigate and access all the features hassle free	2	High	Nithin Poorna Ragavendra Rohith
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	Nithin Poorna Ragavendra Rohith
Sprint-3	Data Storing and Retrieving	USN-8	Get Data from API and store as JSON in DB2	3	High	Nithin Poorna Ragavendra Rohith
Sprint-3		USN-9	Get bin data from API and store in DFS	2	High	Nithin Poorna Ragavendra Rohith
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	Nithin Poorna Ragavendra Rohith
Sprint-4	Change code	USN-11	As a administrator I should be able to modify code according to the future requirements.	2	Medium	Nithin Poorna Ragavendra Rohith
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	Nithin Poorna Ragavendra Rohith

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	10 Nov 2022	12 Nov 2022	8	12 Nov 2022
Sprint-2	20	6 Days	12 Nov 2022	05 Nov 2022	4	14 Nov 2022
Sprint-3	20	6 Days	14 Nov 2022	16 Nov 2022	5	16 Nov 2022
Sprint-4	20	6 Days	16 Nov 2022	19 Nov 2022	4	19 Nov 2022

Reports from JIRA

Task	NOV
<input checked="" type="checkbox"/> NTA-1 LOGIN PAGE	
<input checked="" type="checkbox"/> NTA-2 REGISTRATION PAGE	
<input checked="" type="checkbox"/> NTA-3 SEARCH PAGE	
<input checked="" type="checkbox"/> NTA-4 INTEGRATE DB2	
<input checked="" type="checkbox"/> NTA-5 PREFERENCE PAGE	
<input checked="" type="checkbox"/> NTA-6 INTEGRATING SENDGRID	

7. CODING & SOLUTIONING (Explain the features added in the project along with code)

7.1 Feature 1



This feature is used to get the user wish for receiving any update related to recommended news.

7.2 Database Schema

Table1 Name: User
credentialsColumns:

- ID
- USER NAME
- PASSWORD
- NAME
- CATEGORY
- EMAIL_PREFERENCE

Table2 Name: News

Data Columns:

- TITLE
- CATEGORY
- LINK
- SOURCE

8. TESTING

8.1 Test Cases

Feature Type	Component	Test Scenario	Steps To Execute	Expected Result	Actual Result	Status
Functional	Home Page	Verify user is able to Login when user credentials are entered correctly	1.Go to login page 2.Enter credentials and login 3.User must be redirected according to their status of their login authentication	Login should redirect correctly	Working as expected	Pass
Functional	Registration Page	Verify user is able to register when user credentials are entered correctly	1.Go to register page 2.Enter credentials and register 3.User must be redirected to the login	When all the criteria is matched the user must be redirected to the login page	Working as expected	Pass
Functional	Preference page	Verify user is able to change their preferences according to their choices	1.Go to Preference page 2. Updated preference must be updated in the DB2 3.The mail he receives must contain news of his own interest	Change of preference must be reflected in the search page and the update mail	Working as expected	Pass
Functional	Search page	Verify user is able to search through the news through API	1.Go to Search page 2.Search with a particular query	Even without login everyone must be able to search for their news of interest	Working as expected	Pass

8.2 User Acceptance Testing

DEFECT ANALYSIS

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	1	0	0	0	1
External	0	1	0	0	1
Fixed	1	0	0	0	1
Skipped	1	0	0	0	1
Totals	3	1	0	0	4

TESTCASE ANALYSIS

Section	Total Cases	Not Tested	Fail	Pass
Login Page	1	0	0	1
Register Page	1	0	0	1
Preference Page	1	0	0	1
Search Page	1	0	0	1

9. RESULTS

9.1 Performance Metrics

			NFT - Risk Assessment						
S. No	Project Name	Scope/feature	Functional Changes	Hardware Changes	Software Changes	Impact of Downtime	Load/Volume Changes	Risk Score	Justification
1	News Tracker Application	Preference of notification	Low	No Changes	Moderate	Low	>5 to 10%	ORANGE	As we have seen the changes

10. ADVANTAGES & DISADVANTAGES

10.1 Advantages

- Application shows only user recommended news.
- No subscription needed only registration is enough to receive news updates.
- Ad free application.
- Simple and minimalistic User Interface.

10.2 Disadvantages

- News are sent only at the scheduled time.
- Only 20 news updates are sent important news may be missed.
- App can able to sent only 20 news updates which is not enough.

11. CONCLUSION

A day to cope up with everything we have in our schedule. 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. The purpose of this project is to make the things we enjoy a little simpler in these busy days. Most of us have the habit of reading news, but are overwhelmed by the unwanted news that are notified with the ones we love. Sometimes the unwanted news spoils our mood. The purpose of this project is to allow users to specify the categories they like to be notified and send notification based on their own preferences.

12. FUTURE SCOPE

A news application has simple goals: Capture and retain reader attention, and repeat the process, several times a day. If mobile is to become the dominant vector for news, retaining readers will be much more challenging than it is on a PC or tablet (though the latter tends to engage readers 10x or sometimes 20x more). A news app needs to be steered with precision. Today's digital marketing tools allow publishers to select multiple parameters monitoring the use of a application. They can measure how long the app is used, when, for how long, why and where people tend to drop it, what kind of news they like, if they hit a paywall and give up, and why they do so, etc. Similarly, when an app remains unopened for too long, smart tools can pinpoint

the user and remind her of the product's benefits. These tools are as good as the people who (a) set the parameters, (b) monitor them on a daily basis, and (c) take appropriate action such as launching a broadside of super-targeted emails.

13. APPENDIX

PROJECT CODE:

[CLICK HERE](#)