

# **INSIGHTSTREAM : NAVIGATE THE NEWS LANDSCAPE**

**(NEWS APP)**

## **NAANMUDHALVAN PROJECT REPORT**

**SUBMITTED BY**

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**DEPARTMENT OF COMPUTER APPLICATIONS**



**TAGORE COLLEGE OF ARTS AND SCIENCE**

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MARCH - 2025

## InsightStream: Navigate the News Landscape

### Ideation Phase

### Brainstorm & Idea Prioritization

Date	05 March 2025
Team ID	SWTID1741232591152740
Project Name	Insight Stream: Navigate the News Landscape
Maximum Marks	4 Marks

Team Leader	RESHMA D
Team Member 1	SANDHIYA V
Team Member 2	NANDHINI D
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Team Member 4	NITHYASHREE K


#### Brainstorm & Idea Prioritization Template:

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.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: <https://www.mural.co/templates/brainstorm-and-idea-prioritization>

#### Step-1: Team Gathering, Collaboration and Select the Problem Statement



### Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

⌚ 10 minutes to prepare  
🕒 1 hour to collaborate  
👥 2-8 people recommended

**Before you collaborate**  
A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⌚ 10 minutes

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- A Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.
- B Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.
- C Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →

**1 Define your problem statement**  
What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⌚ 5 minutes

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PROBLEM

How might we [your problem statement]?

**Key rules of brainstorming**  
To run an smooth and productive session

🗣️ Stay in topic.

💡 Encourage wild ideas.

⏸️ Defer judgment.

👂 Listen to others.

🗣️ Go for volume.

👁️ If possible, be visual.

## Step-2: Brainstorm, Idea Listing and Grouping

2

### Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

#### TIP



You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Person 1

Use user preferences (topics, keywords) to display relevant news articles.

Person 2

Integrate an API that fetches breaking news updates continuously.

Person 3

Allow users to search news articles based on categories (e.g., Tech, Business, Sports).

Person 4

Enable users to save their favorite articles for later reading.

3

### Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes

#### TIP



Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Personalized  
News &  
Preferences

Content  
Organization  
& Search

Real-Time  
Updates

## Step-3: Idea Prioritization

4

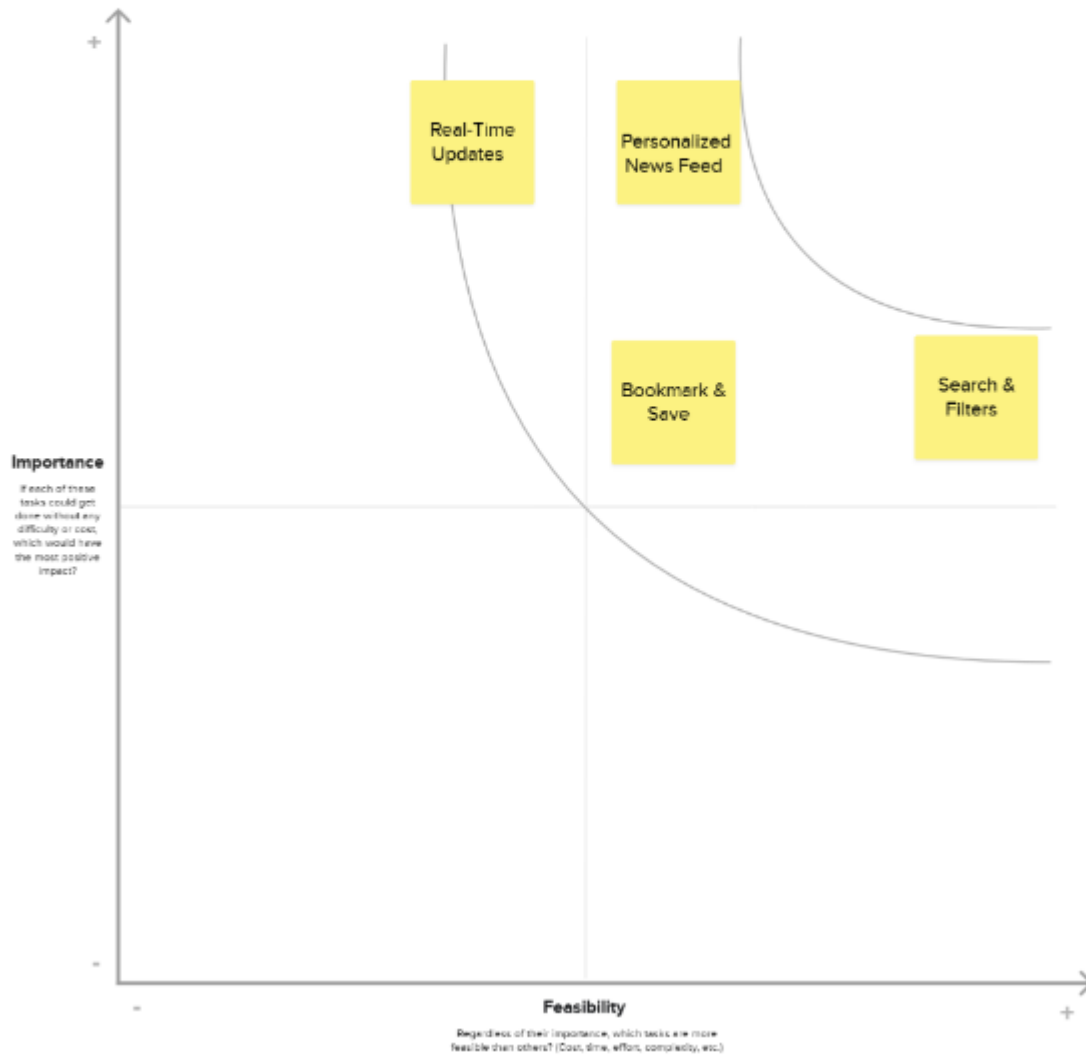
## Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

### TIP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.



# InsightStream: Navigate the News Landscape

## Ideation Phase

### Define the Problem Statements

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#### Customer Problem Statement Template:

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

<b>I am</b>	Describe customer with 3-4 key characteristics - <i>who are they?</i>	Describe the customer and their attributes here
<b>I'm trying to</b>	List their outcome or "job" the care about - <i>what are they trying to achieve?</i>	List the thing they are trying to achieve here
<b>but</b>	Describe what problems or barriers stand in the way - <i>what bothers them most?</i>	Describe the problems or barriers that get in the way here
<b>because</b>	Enter the "root cause" of why the problem or barrier exists - <i>what needs to be solved?</i>	Describe the reason the problems or barriers exist
<b>which makes me feel</b>	Describe the emotions from the customer's point of view - <i>how does it impact them emotionally?</i>	Describe the emotions the result from experiencing the problems or barriers

Reference: <https://miro.com/templates/customer-problem-statement/>

#### Example:

I am	I'm trying to	But	Because	Which makes me feel
A casual reader	Find news on topics I care about	The news feed is not personalized	I want an easy way to filter news based on my interests	Disconnected and overwhelmed by irrelevant content

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
<b>PS-1</b>	A busy professional	Stay updated with the latest news quickly	Most news websites are cluttered with ads and unnecessary content	I need a clean, distraction-free interface with only relevant news	Frustrated and unwilling to browse for long
<b>PS-2</b>	A casual reader	Find news on topics I care about	The news feed is not personalized	I want an easy way to filter news based on my interests	Disconnected and overwhelmed by irrelevant content
<b>PS-3</b>	A mobile user	Read news on the go	Many platforms are not mobile-friendly or take too long to load	I need a smooth, fast-loading, and responsive experience	Annoyed and likely to leave the platform
<b>PS-4</b>	A user concerned about credibility	Get reliable news from trusted sources	A lot of platforms spread misinformation or lack source transparency	I need verified news from reputable sources	Skeptical and unsure which news to trust

**InsightStream: Navigate the News Landscape  
Ideation Phase**

## Empathize & Discover

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### Empathy Map Canvas:

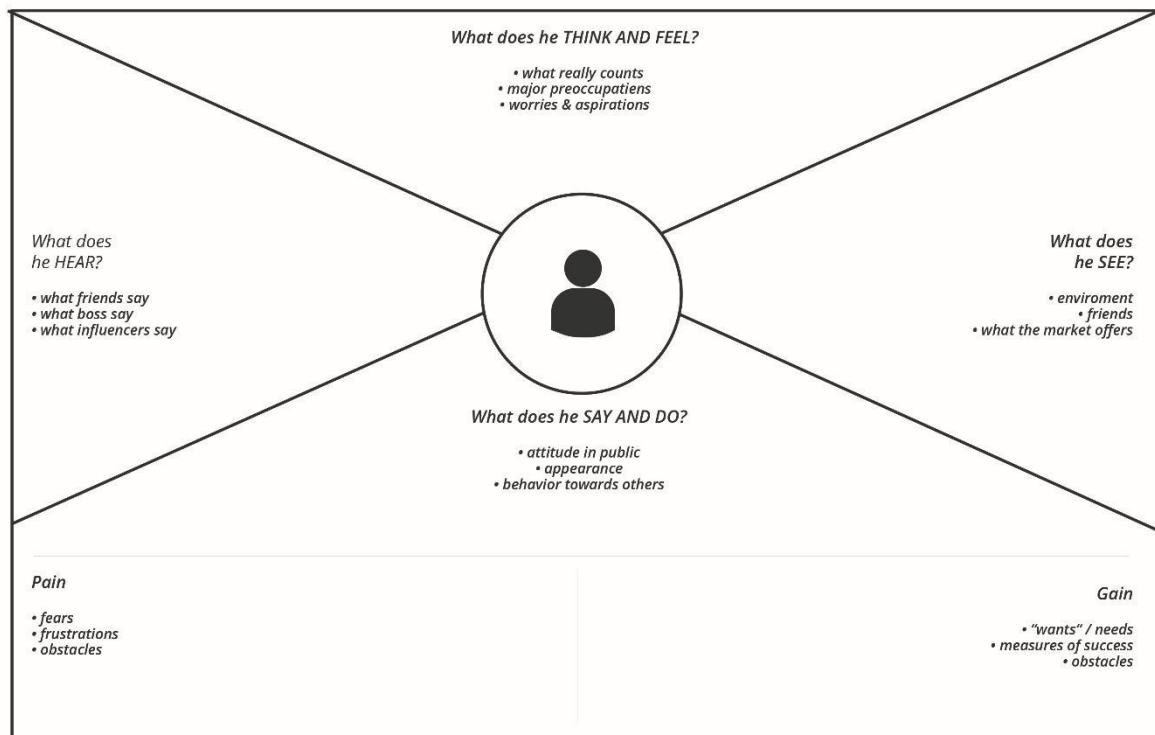
An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes.

It is a useful tool to help teams better understand their users.

Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

### Example:

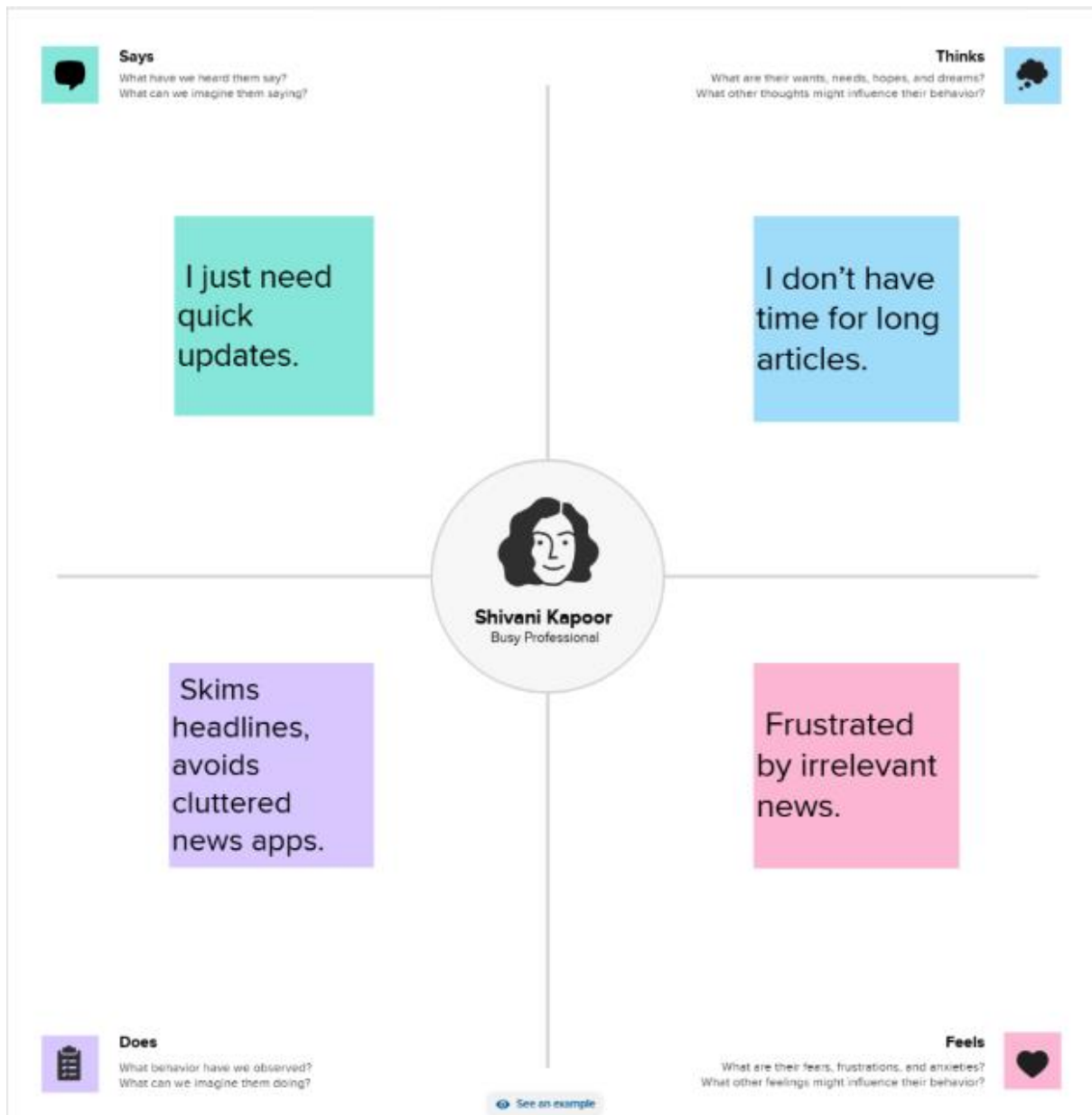
#### Empathy Map



 <http://creativecommons.org/licenses/by-sa/4.0/>

Business Model **Toolbox**

Reference: <https://www.mural.co/templates/empathy-map-canvas>



## Project Design Phase-II



## Data Flow Diagram & User Stories

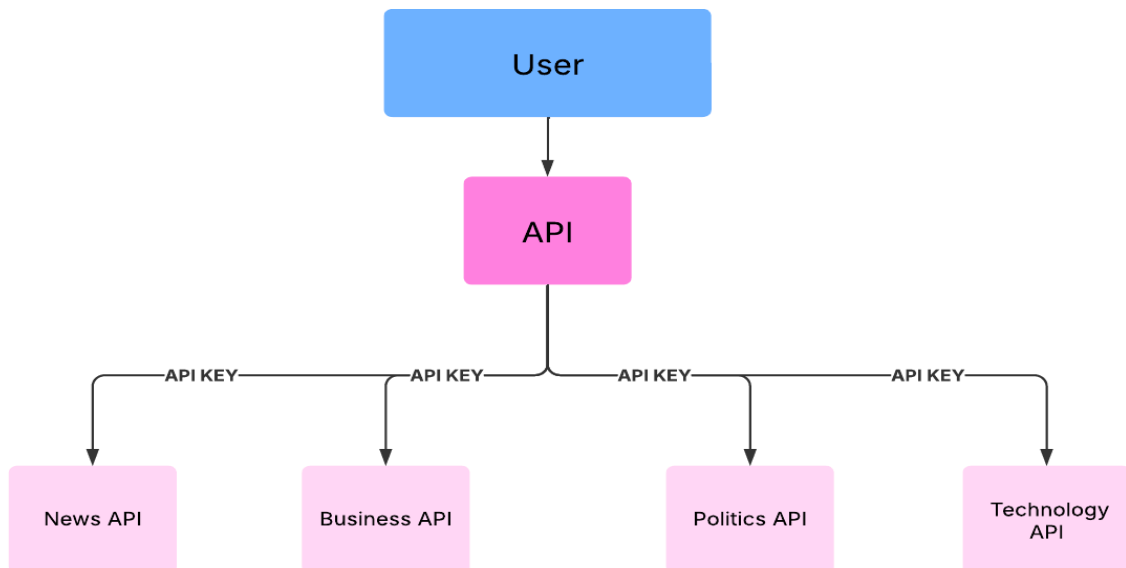
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### Data Flow Diagrams:

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.

### Example:



## User Stories

### User Story Table – Music Streaming App

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
News		USN-1	As a user, I can see the trendy news .	I can see the News of all topics.	High	Sprint -1
Genre		USN-2	As a user, I can watch Political,Business, and Technology News.	I can also go the source and read the full news.	High	Sprint -1
		USN-3	As a user, I can able to view the complete news across the world.	I can also watch the news for multiple pages .	Medium	Sprint -2
Subscription		USN-4	As a user, I can even subscribe.	I can Subscribe to the newsletter for the news .	High	Sprint -2

## Project Design Phase-II

## Solution Requirements (Functional & Non-functional)

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### Functional Requirements:

Following are the functional requirements of the proposed solution.

#### Functional Requirements – News App

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	News Home	Top News
FR-2	News Genre	General,Health,Technology,Politics,Art & Culture
FR-3	NewsLetter	NewsLetter subscription

### Non-functional Requirements:

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

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	The app should have an intuitive and user-friendly interface, ensuring smooth navigation and accessibility for users of all demographics.
NFR-2	Security	User authentication and data must be secured using encryption (e.g., HTTPS, OAuth for third-party logins). The app should prevent unauthorized access and follow best security practices.
NFR-3	Reliability	The app should ensure a consistent and uninterrupted music streaming experience, minimizing crashes and downtime.
NFR-4	Performance	Songs should load and stream with minimal buffering. The app should respond to user interactions (search, playback, playlist management) within 2 seconds.

<b>NFR-5</b>	<b>Availability</b>	The system should maintain an uptime of at least 99.9%, ensuring accessibility across different time zones.
<b>NFR-6</b>	<b>Scalability</b>	The app should handle increasing numbers of users and concurrent streams efficiently without performance degradation. The architecture should support future feature expansion.

**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

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### Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

**Example:** News App

**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	Web-based interface for News	HTML, CSS, JavaScript / React Js etc.
2.	Application Logic-1	News fetching from News api	React js
3.	Application Logic-2	News fetching based on genre	React js

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
4.	Open-Source Frameworks	Frontend frameworks	React.js, BootStrap, Tailwind CSS

### References:

[React.js Documentation](#)

## Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

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### Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
<b>Sprint -1</b>	<b>News Categories</b>	USN-1	As a user, I can read the news based on the category.	20	High	Tousif
<b>Sprint -2</b>	<b>Default News</b>	USN-2	As a user, I can see the trendy news at the default page .	20	High	Tousif
<b>Sprint -3</b>	<b>News Browsing</b>	USN-3	As a user, I can read the complete article with courtesy.	20	High	Tousif
<b>Sprint -4</b>	<b>Subscription</b>	USN-4	As a user, I can Subscribe to the news letter.	20	High	Tousif

### Project Tracker, Velocity & Burndown Chart

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
<b>Sprint-1</b>	20	6 Days	1 Mar 2025	2 Mar 2025	20	2 Mar 2025
<b>Sprint-2</b>	20	6 Days	3 Mar 2025	4 Mar 2025	20	4 Mar 2025
<b>Sprint-3</b>	20	6 Days	5 Mar 2025	6 Mar 2025	20	6 Mar 2025
<b>Sprint-4</b>	20	6 Days	7 Mar 2025	8 Apr 2025	20	8 Apr 2025

### Project Design Phase Problem – Solution Fit Template

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### Problem – Solution Fit Overview:

The **Problem-Solution Fit** ensures that the identified problem aligns with the needs of News App and that the proposed solution effectively addresses it. This validation is crucial before further development.

### Purpose:

- Address the fragmented News, where users struggle to find a comprehensive platform that caters to diverse news tastes and offers personalized recommendations.
- Provide an intuitive and engaging platform for users to discover latest news ,courtesy without relying on multiple sources.
- Offer News based on category to enhance user engagement and satisfaction.
- Provide a platform that empowers independent journalists to gain exposure.
- Improve accessibility and engagement through an **interactive UI, responsive design, and well-structured data flow.**

### Problem Statement:

Many music enthusiasts face challenges in finding a single platform that offers:

- A vast and diverse news platform.
- Accurate and top news .
- Genuine courtesy.
- A strong social community around news .
- Fair exposure for independent journalist.

### Solution:

**“News App”**, a News app for web and mobile application, will provide:

- An extensive top News library through partnerships with major and independent record labels.
- Top and trendy news by default .
- Genuine courtesy reduces the chance of corrupted news.
- A freemium business model, that allows for free users.

**Project Design Phase  
Proposed Solution Template**



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### Proposed Solution for Music Streaming App

S. No.	Parameter	Description
1	<b>Problem Statement</b> (Problem to be solved)	Users often struggle to find accurate news and genuine courtesy. News app provides a full fledged top news and the news based on the genre .The open source third party news api provides the service for fetch and news and the news based on the category.
2	<b>Idea / Solution Description</b>	The News app is a React-based frontend solution that allows users to search, stream, and manage the news. It leverages a third-party API to fetch news and ensures an intuitive and interactive UI/UX for a seamless experience.
3	<b>Novelty / Uniqueness</b>	- <b>Top news</b> using open source third party API - <b>Intuitive UI/UX</b> with responsive design across devices - <b>Cross-Platform Support</b> for both mobile and web users - <b>Seamless Integration</b> with third-party News APIs for vast content availability
4	<b>Social Impact / Customer Satisfaction</b>	- Provides an <b>ad-free news experience</b> with multiple categories- <b>Brings emerging courtesy</b> to a wider audience through latest news - <b>Increases user engagement</b> through category based news.
5	<b>Business Model (Revenue Model)</b>	- <b>Freemium Model</b> : Free tier with No ads,for enjoying ad free news and news based categories.
6	<b>Scalability of the Solution</b>	- Can be <b>expanded globally</b> by integrating multiple third-party news APIs - Supports for enhanced personalization - Can be extended to <b>mobile applications</b> for iOS & Android using React Native - Potential integration with <b>AI-driven recommendation engines</b> for improved user experience

### Project Design Phase Solution Architecture

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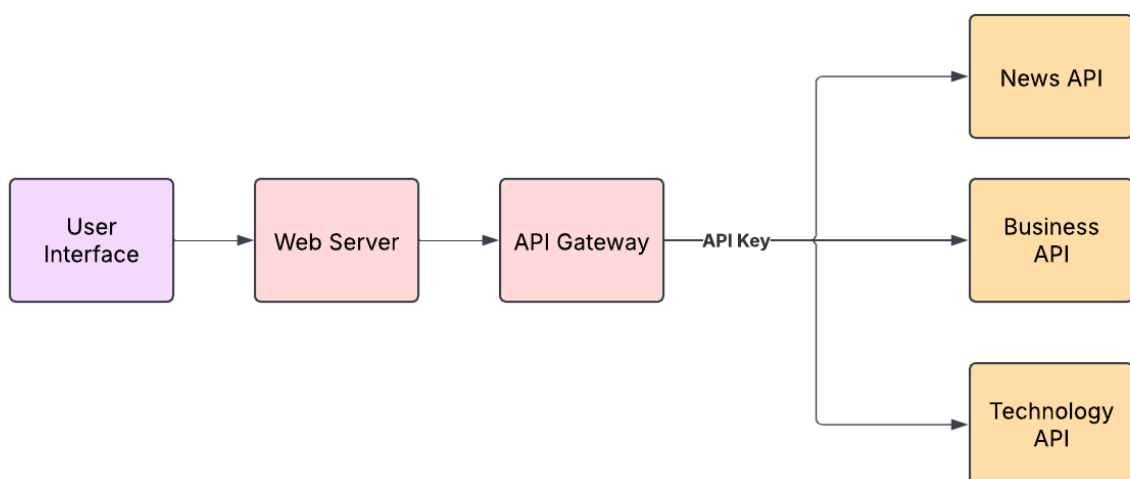
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### Solution Architecture:

The solution architecture for news app, the news Application, ensures a **scalable, high-performance, and immersive platform** for getting news from genuine sources and personalized playlists. The architecture prioritizes seamless audio delivery, real-time recommendations, and cross-device synchronization to enhance user engagement.

- 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.
- Provide specifications according to which the solution is defined, managed, and delivered.

### Example - Solution Architecture Diagram:



## User Acceptance Testing (UAT) Template

Date	05 March 2025
Team ID	SWTID1741231870151721
Project Name	Insight Stream: Navigate the News Landscape
Maximum Marks	4 Marks

Team Leader	HARISH NARAYANAN S
Team Member 1	HARISH RAJ V
Team Member 2	JAI GANESH S
Team Member 3	JOHN CHRISTOPHER D
Team Member 4	KESAVAN J

### Project Overview

☐ **Project Name:** News app

- ☐

**Project Description:** A React-based news application that allows users to search, track, and analyse real-time news data using a third-party API.
- ☐

**Project Version:** v1.0
- ☐

**Testing Period:** March 1, 2025 - March 8, 2025

Testing Scope

Features and Functionalities to be Tested

- ☒ Home Page & Navigation
- ☒ News Category
- ☒ API Integration for Real-Time news
- ☒ API key to access the api
- ☒ Watching News based on category.
- ☒ UI/UX Testing (Responsiveness, Icons, Styling)
- ☒ Error Handling & Performance Testing

User Stories or Requirements to be Tested

- ☐ Viewing global news.
- ☐ Watching news based on the category
- ☐ Getting newsletter based on subscription
- ☐ Responsive UI across Mobile, Tablet, and Desktop
- ☐ Handling API Errors Gracefully

Test Cases

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-001	Load Homepage	1. Open the application 2. Homepage loads	Homepage should display all the news.	[Actual Result]	[Pass/Fail]
TC-002	Category	1. Select the news category	Get the news based in the category	[Actual Result]	[Pass/Fail]
TC-003	Subscription	1. Get the newsletter	Get the subscription newsletter.	[Actual Result]	[Pass/Fail]
TC-004	Mobile Responsiveness	1. Open the app on a mobile device 2. Navigate through pages	UI should be responsive and properly displayed	[Actual Result]	[Pass/Fail]

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## Bug Tracking

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-001	results take too long to load	1. Results won't load. 2. Observe slow response time	High	Open	Need API Key
BG-002	News will not load.	1. Click on category 2. Observe incorrect results	Medium	In Progress	Filtering logic needs debugging
BG-003	UI overlaps on small screen devices	1. Open app on small devices (iPhone SE) 2. Observe UI distortion	Low	Open	Adjust CSS for better responsiveness

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## Sign-off

**Tester Name:** [Enter Name]

**Date:** [Enter Date of Completion]

**Signature:** [Enter Signature]

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## Notes

- Ensure testing covers both positive & negative cases
- Bug tracking should include severity levels & reproduction steps
- Final sign-off required before deployment