# News App: A Feature-Rich Flutter Application

-DEEPIKA G

## Problem statement

- With the overwhelming amount of news available online, users struggle to find reliable and relevant information quickly.
- Many existing news platforms lack real-time updates, often leading to outdated content.
- The absence of category-wise news filtering makes it difficult for users to focus on specific topics of interest.
- Poor UI/UX design in many news apps results in complex navigation and reduces user engagement.
- There is a need for a feature-rich mobile application that provides customized, up-to-date, and easily accessible news content.
- ✓ No save-for-later feature in many apps makes it difficult for users to revisit important news.

## Project overview

- Live News App, developed using Flutter, ensures a seamless and cross-platform experience.
- NewsAPI integration enables fetching the latest news from trusted sources.
- Category-Based News Filtering allows users to explore news across Business, Entertainment, Health, Science, Sports, and Technology.
- Fast and Lightweight design ensures quick loading times and smooth performance.
- Enhanced User Experience features intuitive navigation and interactive elements to improve engagement.
- Favorites Section: Allows users to save and revisit important news articles.
- Notes Section: Enables users to jot down their thoughts and opinions on news topics.
- Important Dates Section: Provides a feature to mark and remember significant dates related to news events.

### HOME PAGE

The Home Page provides access to various news categories through an intuitiveGridView layout. (StatelessWidget)

#### **Key Features:**

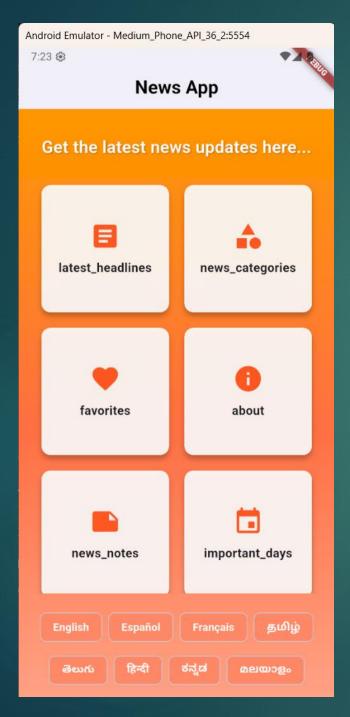
- ✓ Latest Headlines: Displays breaking news.(StatefulWidget)
- Categories: Browse news by topics.(StatelessWidget)
- Favorites: Save preferred articles. (StatelessWidget)
- Notes: Store news-related notes. (StatelessWidget)
- ✓ Important Days: Highlights key events. (StatefulWidget)
- About: App information.(StatelessWidget)

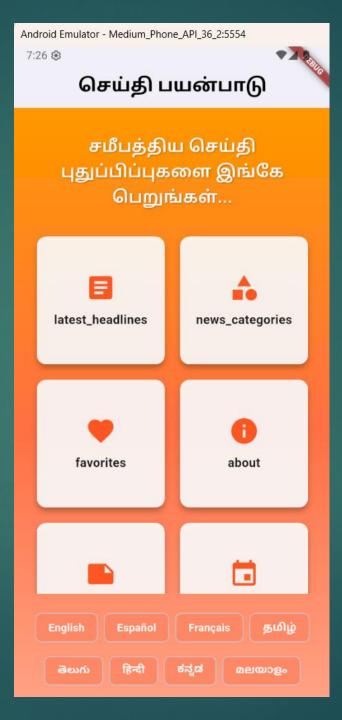
#### Navigation & Localization:

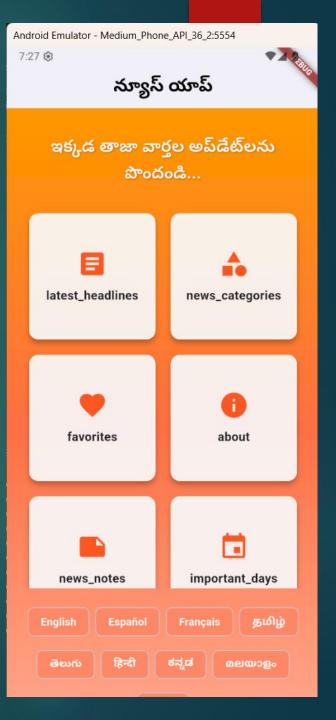
- Smooth page transitions using GestureDetector and Navigator.push().
- Multi-language support via Action Chips.

#### **Styling & Theming:**

Modern UI with rounded cards, shadows, and gradient background.







## **Headlines** page

The Headlines Page provides users with real-time news updates, ensuring they stay informed with ease.

#### **Key Features:**

- ✓ Latest News Updates Fetches and displays top headlines from an API.
- ✓ Image Previews Displays images for a visually engaging experience.
- ✓ Efficient Scrolling Uses ListView.builder for optimized performance.

#### Navigation & Gestures:

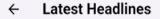
- ✓ Uses Navigator.push() for smooth transitions to detailed news pages.
- ✓ Implements GestureDetector for interactive user actions.

#### **Dynamic Content Fetching:**

- ✓ Real-time API Integration Retrieves news dynamically from NewsAPI.
- ✓ Automatic Refresh Updates content seamlessly for fresh headlines.

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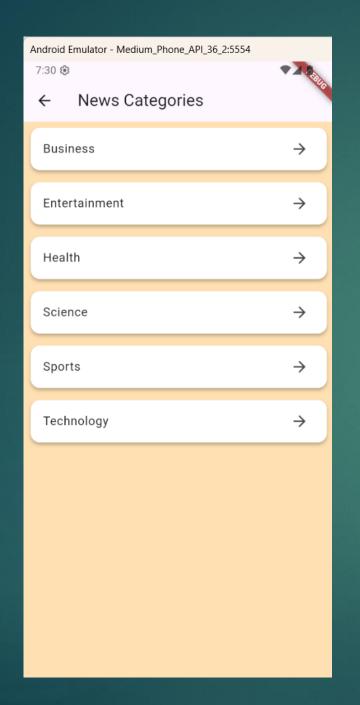
## Categories page

The Categories Page allows users to browse news based on different topics, providing an organized way to explore content

#### **Key Features**

- News Categories Displays different categories like Business, Entertainment, Health, Science, Sports, and Technology
- Category-based Navigation Users can tap a category to view relevant news articles
- Favorites Support Users can save articles to Firebase Firestore for easy access later

- Dynamic API Fetching News articles are retrieved in real time from NewsAPI based on selected categories
- Seamless Navigation Uses Navigator.push() for smooth category-to-news transitions
- Card-based UI Clean and modern ListView layout with interactive ListTiles



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## Favorites page

The Favorites Page allows users to save and revisit their favorite news articles, providing a personalized reading experience

#### **Key Features**

- Saved News Displays a list of favorite articles stored in Firebase Firestore
- ✓ Image Previews Showcases images for a visually engaging layout
- Efficient Storage Uses Firestore to manage saved news seamlessly

- Real-time Updates Fetches favorite articles dynamically using Firestore snapshots
- ✓ Easy Management Users can remove saved articles with a single tap
- Card-based UI Clean and interactive design for a better reading experience

## **About Page**

The About Page provides users with an overview of the Live News App, highlighting its purpose and key functionalities.

#### **Key Features**

- App Overview Offers insights into the app's purpose, including real-time news updates across various categories.
- Card-based UI Displays content in a structured and visually appealing manner for easy readability.
- User-Friendly Design Ensures a clean and engaging experience with clear text and intuitive navigation.

## **News Notes Page**

- The Notes Page enables users to write, save, and manage personal notes related to news articles, ensuring easy reference and organization.
- ▶ It utilizes Sqflite (SQLite plugin for Flutter) for efficient local storage, providing a seamless and reliable note-taking experience.

#### **Key Features**

- News Note-Taking Users can create and store notes for different news articles.
- ✓ Sqflite Storage Ensures efficient and persistent local storage for notes.
- ✓ Structured Input Provides dedicated fields for the news title and content.

- Seamless Management Users can add, view, and delete notes effortlessly.
- ✓ Interactive UI Card-based design for a clean and organized note display.
- Persistent Data Notes remain saved even after app restarts using Sqflite.

## Important Days Page

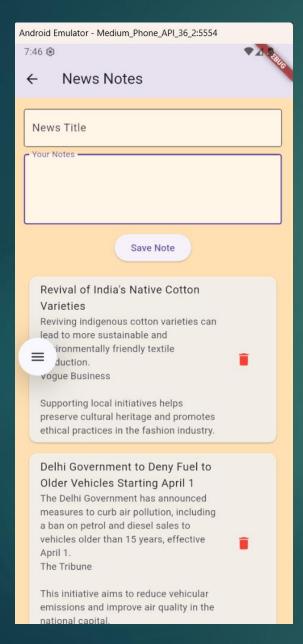
- The Important Days Page allows users to save and track significant dates along with custom notes, ensuring important events are easily accessible.
- ▶ It utilizes **Firebase Firestore** for real-time data storage and retrieval, providing a seamless user experience.

#### **Key Features**

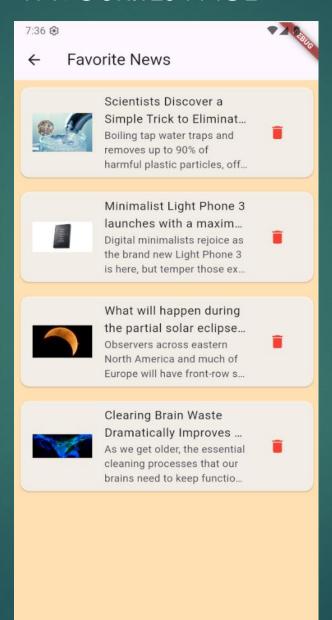
- Date Selection Users can choose and save important dates
- ✓ Firestore Storage Ensures real-time storage and retrieval of important days
- Custom Notes Allows users to add descriptions for each saved date

- Dynamic Updates Data is stored in Firestore and updated in real-time
- Easy Management Users can add and delete important days effortlessly
- ✓ Interactive UI Card-based layout for an organized display of saved events

#### NOTES PAGE



#### **FAVOURITES PAGE**



#### IMPORTANT DAYS PAGE

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← Important Days	▼ A Staller
Select Date	
Enter a note	
Save	
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