DevCom

NEWS APP

Table of contents

FEATURES

Approach

Features of the app

When entering the app

The main framework

The menu features

The discussion forum

Choosing the type of application.

THE API AND FRAMEWORK

Figma Prototype

The signup page

The login page

The dashboard

The menu

The menu has two dropdowns that have its own features.

The embedded news template

The forum template.

Custom settings template

Link to figma prototype of the app.

The User flow Flowchart (Lucidchart)

Approach

The main function of a news app must be to deliver proper headlines according to my interests. The feed must comprise different genres, authors, and news sources. The news app must be able to deliver more news or articles of a particular author/ product etc.

For example i may read a news article not because of its topic but because i like to read a particular author's writings and appreciate his style. So the app must have a method by which it can receive the users interest in reading the article.

The next problem is the ability to read offline or in poor connectivity. For this the app may download the first few articles and keep it in its storage.

The next problem I have attempted to solve is the interaction. For example most of us are not aware of the reasons behind the hike in price of oil or onions etc. A platform where readers can express their opinions on this topic would be helpful for people to judge their local leaders and help them become more informative. An insight into an article of a particular author in such a forum can help the authors to improve their opinions. Hence the app must have a forum for discussion under every major headline.

The app must also have the feature to share a particular part of an article through their social media stream. For example if a report has been published by the ministry of education, the schools must have the ability to share the full or parts of the announcement to make sure their students are aware of such changes.

Features of the app

When entering the app

User opens the app from the desktop Sees a poster of the app while it loads

- → User will see a sign up/login page if not logged in
 - ◆ User can login if he has signed up
 - Will be directed to user dashboard upon giving username and password or through gmail or facebook handles
- → User is directed to signup page
 - ◆ User enters username , password

- Or else the user has choice to sign up via google accounts or facebook handles
- ◆ User is directed to a welcome page dashboard and shown tutorial of all features
- ◆ The user is then asked to set up custom settings if he prefers to to get his choice of genres and articles. The custom settings are mentioned below.

The main framework

- A header that contains
 - A menu on left that drops down containing all the features directing to their respective pages
 - The user profile/user name is displayed on right which has a dropdown that has the choice to sign out/ add another account.
 - The app title in the middle.
 - A search query to custom search for related headlines
- The main body having all the news articles in boxes: each has the headline and an image and a options to:
 - Star/save the news article. The app saves the news piece in the database. On selecting this feature, the user is asked if he needs the article to be saved offline.
 If the user chooses yes then it is saved or else the article is saved but is not downloaded.
 - Share option. The user is shown an option to share via his social media accounts that he has given access to or is asked to add another. The user can choose multiple. The user has also the provision to include the images/select a certain part of the article. The article is then shared on his/her account.
 - A show more option at the bottom. The user is asked to select if he wants more
 of the particular author /news site/ product brand/ region/ event/ (all of the above
 are shown only when such tags are present in article)
 - Show less option the bottom. The user is asked to select if he wants less of the particular author /news site/ product brand/ region/ event/ (all of the above are shown only when such tags are present in article)
 - comment option. The user is directed to a collective discussion panel (the users profile will be shown when he makes comments to prevent harsh messages and hurtful comments) where users can layout their opinions/like the comments made/ star the comments/unlike comments. The most liked comments will be displayed at the top. The opinions will also be relayed to the news site/author if permitted.
- The footer contains a back option that directs to previous page and a home option that takes user to landing page of news articles

- Top 20 articles(or more according to the user) are saved offline in the app to allow user to read in offline mode(can be disabled)
- The main news section must not display any more news stories of a particular topic if it has been read by user(can be disabled)

The menu features

- Go to the custom-setup page: this is in addition to the show related option in the article section. Both are integrated.
 - Can choose/disallow author/ news site/genres/
- News option (dropdown)
 - Local news: news from your region and weather updates
 - Global headlines
 - Sports
 - Technology
 - Fact check tab to inform user about the fake news circulation.
 - Science
 - Health
 - Weather
 - Economy
 - Entertainment
 - Videos and Images
- Opinion genre: contains all the articles by editors and authors
- Last weeks/months major headlines
- A "starred" tab containing all of the users starred/saved offline news sections and saved messages in the discussion forums
- A shared column containing all of the stories shared from the app
- Logout and sign in as different user tab
- A advanced settings column to select the following features:
 - Select no of news articles to be saved offline/or disable feature
 - Enable/disable feature that prevents news article of the same headlines from appearing again..
 - A custom notifications tab to allow user to choose the type of push notification e.g to choose only cricket scores or only world news
 - Link social media accounts tab
 - Receive newsletter option. The user can choose the genres that he wants to receive a newsletter. The user has to give his email address.

The discussion forum

- Users can go to the forum section under each headline and start giving their opinions.
- Users can reply to other comments
- Users can save or like other comments
- The comment option will have the users profile attached including the date and time
- The user can view the top liked and replied comments at the top when entering the forum.

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On clicking an article the user will be directed to the source website page embedded in the app and can have options to share/view/comment/save.

Choosing the type of application.

Now there are two kinds of apps: the web app and the native app. For the news app, the features don't need a lot of access to the devices features like camera, accelerometer, bluetooth or GPS. Hence going for a native app and building it for iOS and android separately will not be ideal. Instead I will build my app as a PWA which can access features like push notifications and even function in offline mode using data caching. The PWA will also not require more maintenance since it needs to be programmed in only one language. PWAs are also device compatible and can be set up as a desktop icon and hence giving users a native app experience.

PWA conversion into a hybrid app can ensure its presence in stores too but that can be reserved for the future.

THE API AND FRAMEWORK

- The news feed will be generated by the NEWS API (https://newsapi.org/) which is a REST Api and hence we can get the data in a JSON format by giving in suitable queries for the news. The URL queries are made for all the genres, counties etc. The json file will be then configured using python to read the data and integrate it into the UI. The custom settings that are made by the user will be used to display certain news articles first.
- The Server side framework

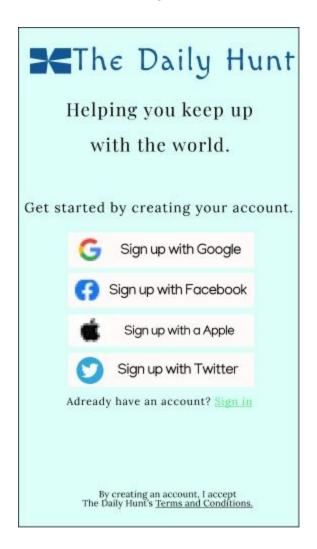
- The main operations of the app that needs a server functions are handling user log and authorization, update the feed from the NEWS API constantly and handle the discussion forum
- The framework of the server side will be Django in Python language that will help in communicating between server and client.
- User logs and the custom settings that the user has set can be stored in the PostgreSQL/mySQL database that can be manipulated accordingly using the Django framework that uses Object-relational Mapping to manipulate the database instead of writing the SQL queries.the database contains the user log timing, the session active/not active, the custom settings that the user has made to get the news article.

Client side framework

- The frontend UI of the app will be programmed with help of AngularJS framework that makes JS easier and less complex using extra attributes that it has, to make a PWA along with HTML and CSS.(single-page app)
- The UI will be compatible for all devices and browsers and updated instantly.
- The discussion forum UI will be made by Javascript, HTML and CSS to design the chat boxes and alignment etc.
- The backend of the discussion forum can be made using the django framework in python language that will help in getting the comments the user types, replies, likes. The chats will all be stored in the servers. The starred comments are cached in the storage of the user.

Figma Prototype

The figma prototype that i have made has 9 templates. **ALI the prototypes are of iPhone**



The signup page

This is the page that a user lands in while launching the app if the user does not have a current session. The page has a sign up option through username-password-mail or through google/facebook/apple. The user is then directed to a tutorial where all the app's

features are shown and then directed to the dashboard



The login page

If the user has an account he is directed to this page to authenticate his account through the available modes. He is then directed to the dashboard



The dashboard

This contains a header that has a dropdown menu, a search bar and a profile option where the user can log out to sign in using a different account.

The page contains the main headlines of the day along with a small description. The user can read more on which he is directed to the embedded version of the news site. The url of the website is received in the json.

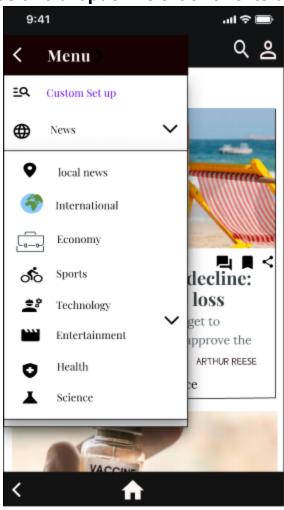
There is also a share, star and a forum option near the headline.

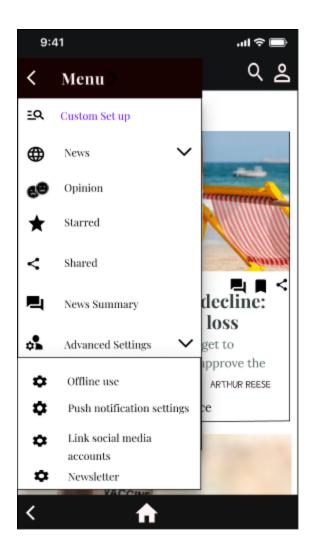


The menu

The menu has a variety of features and this has been depicted in the prototype. The line spacing has been made in accordance to the ease with which the user can select the options.

The menu has two dropdowns that have its own features.





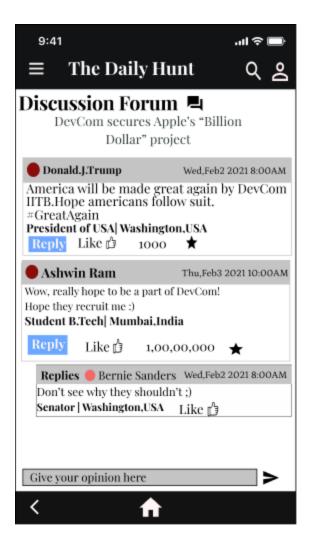
The embedded news template

The url that is received through the API is used to display the article in an embedded format in the app page. The page also has an option to star, share and discuss and also the option to select to receive more of the particular author or source which will be added to the custom settings of the app.



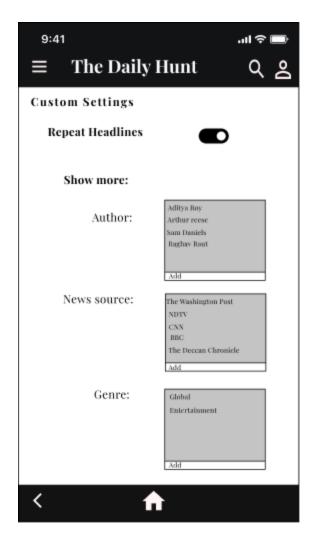
The forum template.

The forum serves as a discussion medium each message has a like option, a star option and reply option. The Chat contains the date, gime along with the user's profile name.



Custom settings template

This contains the features that the user can select to add more of what the user wishes to see.



Link to figma prototype of the app.

https://www.figma.com/proto/VGVwoM1kMfBLz7lbHZ7tfD/News-Application-UI-Design-Community?node-id=9%3A1&scaling=min-zoom

The User flow Flowchart (Lucidchart)

https://lucid.app/lucidchart/invitations/accept/a2effaeb-fdc3-4c53-81f4-0cd28a24411c

