

Florida International University
School of Computing and Information Sciences

Software Engineering Focus

Final Deliverable

Project Title:

FreedomFi
Empowering Individuals Against Internet Censorship

Team Members: George Morera, Leopoldo Rios, Carlos Sautie, Maheer Ahmed, Osniel Oliva Jr, Bryan Simmons, Adriana Beltran, Gaby Perez, Javier Oliva.

Product Owner(s): Augusto Monge

Mentor(s): Augusto Monge

Instructor: Masoud Sadjadi

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Abstract

The purpose of this document is to introduce the reader to the FreedomFi project and provide ample information regarding the purpose of the application and the initial development of the app, being that this is the first iteration of the project. Shown in the pages below are the precise methods, reasoning, environment, and technology used for the inception of this application.

The purpose of the application is to provide users all over the world the ability to learn about and actively combat and circumvent the internet censorship that they may be exposed to in their country. The project recognizes that undemocratic nations are actively blocking, censoring and disconnecting the internet to control, intimidate and censor.

This is the first semester that the project has been worked on and the team simply provided a goal and a few ideas. The challenge was to create an application from scratch that is stable and can be worked on in future iterations, all the while providing the information that users require. As developers, the team had to research application building environments for a good portion of the start of the semester. A large amount of research was done on the subject of censorship, and app design. Once these decisions were made, the development period was underway, and features began to be added, with periods of time in between dedicated to bug fixing and testing.

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Introduction

Current System

The current system for fighting for internet censorship is Netblocks.org, which is a website that shares information regarding countries that currently have, or have had, internet censorship issues when it comes to their citizens. Netblocks takes reports from all over the world and turns it into miniature news articles that explain how and why a certain country is experiencing internet censorship.

Purpose of New System

The purpose of creating Freedom Fi is because Netblocks currently has no mobile application, meaning it is only possible to visit it by website, and although it explains and describes issues regarding internet censorship, it does not offer any ways to combat it. Freedom Fi aims to fix those issues by creating an application that is both mobile and web, and also offer different countermeasures that people can take in order to combat their internet freedom being impeded on by their governments.

User Stories

The following section provides the detailed user stories that were implemented in this iteration of the Freedom Fi project. These user stories served as the basis for the implementation of the project's features.

Implemented User Stories

- FreedomFi_1 Create repository: As a developer, I want to create a GitHub repository so all developers can have a main point of development.
- FreedomFi_2 Create base application: As a developer, I want to create a very simple prototype application in flutter to have something to start developing with.
- FreedomFi_3 Implement API calls: As a developer, I want to implement API calls to netblock to display their data on the freedom fi application.
- FreedomFi_4 Choose framework: As a team, I want to choose between Flutter/dart and WPA for continuing development of FreedomFi.
- FreedomFi_5 Create blank pages: As a developer, I want to create 3 blank pages after choosing the framework, so I know how to continue development.
- FreedomFi_6 Logo and Color Scheme: As a developer, I want to choose a fitting color scheme for the application and a suitable logo.
- FreedomFi_7 Create main page: As a developer, I want to create the main page for the Freedom Fi application to continue development.
- FreedomFi_8 Create different pages: As a developer, I want to create the different pages for the Freedom Fi application to continue development.
- FreedomFi_9 Connect to Netblocks API: As a developer, I want to connect to Netblocks.org twitter API.

Pending User Stories

- UI updates
 - Homepage UI restructuring
 - Modernized color scheme and design
 - News page UI restructuring
 - Show “filter by country”
 - Below country, show news articles/information about specific country
 - Status page UI restructuring
 - Same information presented in more aesthetically pleasing placement
- Feature implementation
 - Countermeasures page
 - Page for ensuring user has secure connection to the internet
 - Provide information about services and tactics for user to maintain/keep their internet freedom
 - Main services would be OpenAI solutions
 - Summary of solutions
 - VPN recommendations
 - Browser suggestions
 - Prevention page
 - Used by users in countries that already have internet freedom and want to know how to keep said freedom
 - Displays information about legislation regarding internet censorship from current events as well as past events (country specific)
 - Offers communities and groups for users to join to engage with others who share similar interests

Project Plan

This section describes the planning that went into the realization of this project. This project incorporated the Agile development techniques and as such required the sprints to be planned. These sprint plannings are detailed in the section. This section also describes the components, both software and hardware, chosen for this project.

Hardware and Software Resources

Hardware Requirements:

- Computer running with OS of choice
 - Browser of choice
- Monitor

Software Requirements:

- Visual Studio Code
- Github
- LucidChart to create UML diagrams
- Twitter API to make API calls
- Figma for UI demos

Sprints Plan

Sprint 1

Date: 08/31/21

Start Time: 8:30 p.m

End Time: 8:49 p.m

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Discussed more details about the creation of Freedom Fi, and what inspired it
- Talked about possible frameworks with both mobile and web application support (flutter, meteor)
- Researching and determining which framework to use.
 - The framework would need to support web and mobile application development with the same code in order to save time and effort.
- Learning now to implement api calls in the application.
 - All of the information we will display on the website will come from an api, and not a database, so it is crucial to the project.

Sprint User Stories:

- No user stories

Sprint 2

Date: 09/13/21

Start Time: 8:10 p.m

End Time: 8:38 p.m

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Confirmed that everyone was ok with and would be continuing on with flutter/dart and visual studio code as the framework
- Discussed the creation of the repository and how we would all work together on development

Sprint User Stories:

- US-1 Create repository: As a developer, I want to create a GitHub repository so all developers can have a main point of development.
- US-2 Create base application: As a developer, I want to create a very simple prototype application in flutter to have something to start developing with.

- US-3 Implement API calls: As a developer, I want to implement API calls to netblock to display their data on the freedom fi application.

Sprint 3

Date: 09/27/21

Start Time: 9:00 p.m

End Time: 10:03 p.m

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Discussed how the PO wanted the website to look; loosely based off of netblocks
- Talked about the graphic visuals
- Discussed multiple possible frameworks

Sprint User Stories:

- US-4 Choose framework: As a team, I want to choose between Flutter/dart and WPA for continuing development of FreedomFi.
- US-5 Create blank pages: As a developer, I want to create 3 blank pages after choosing the framework, so I know how to continue development.
- US-6 Logo and Color Scheme: As a developer, I want to choose a fitting color scheme for the application and a suitable logo.

Sprint 4

Date: 10/11/21

Start Time: 8:50 p.m

End Time: 9:12 p.m

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Started the meeting by discussing whether to continue with creating a progressive web application or to continue using flutter
- Continued the meeting by discussing what pages would be created after choosing framework
- Important step was to connect to Netblocks.org twitter API to display all of their information onto our website.

Sprint User Stories:

- US-7 Create main page: As a developer, I want to create the main page for the Freedom Fi application to continue development.
- US-9 Connect to Netblocks API: As a developer, I want to connect to Netblocks.org twitter API.

Sprint 5

Date: 10/25/21

Start Time: 8:30 p.m

End Time: 8:56 p.m

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Need to work on learning the process on making API calls within Flutter
- Use Dart to bring in information from the internet to give to users

Sprint User Stories:

- US-8 Create different pages: As a developer, I want to create the different pages for the Freedom Fi application to continue development.
- US-9 Connect to Netblocks API: As a developer, I want to connect to Netblocks.org twitter API.

Sprint 6

Date: 11/08/21

Start Time: 9:17 p.m

End Time: 9:46 p.m

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Having slight issues with api calls to twitter, but mostly successful
- Need to finish adding countermeasures and home page

Sprint User Stories:

- US-8 Create different pages: As a developer, I want to create the different pages for the Freedom Fi application to continue development.
- US-9 Connect to Netblocks API: As a developer, I want to connect to Netblocks.org twitter API.

Sprint 7

Date:

Start Time:

End Time:

Attendees of the meetings

Product Owners:

- Augusto Monge

Developers:

- Capstone 2
 - Carlos Sautie
 - George Morera
 - Osniel Oliva Jr
 - Maheer Ahmed
 - Leopoldo Rios
- Capstone 1
 - Bryan Simmons
 - Gaby Perez
 - Adriana Beltran
 - Javier Oliva

Meeting Notes:

- Discussed what work was left for the last sprint
- Discussed what to pass on to the next semester students
- Started the wrapping up of the project
- Discussed what work was left for the last sprint
- Discussed what to pass on to the next semester students
- Started the wrapping up of the project

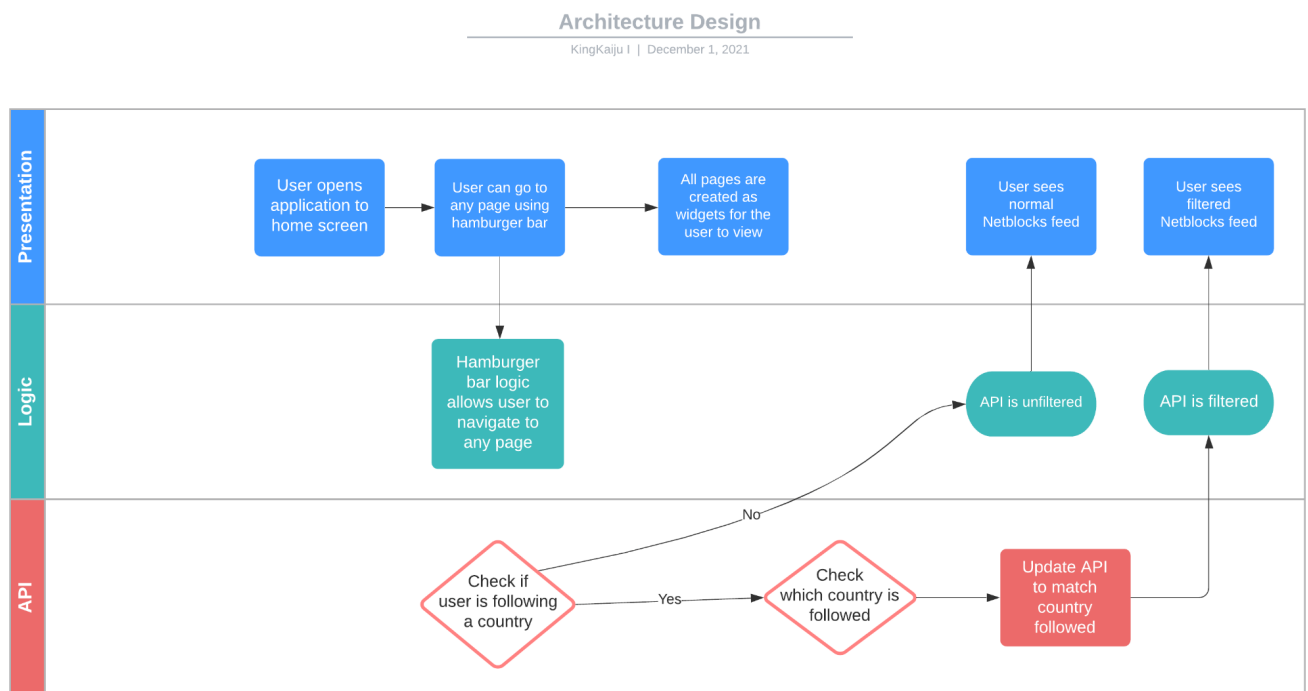
Sprint User Stories:

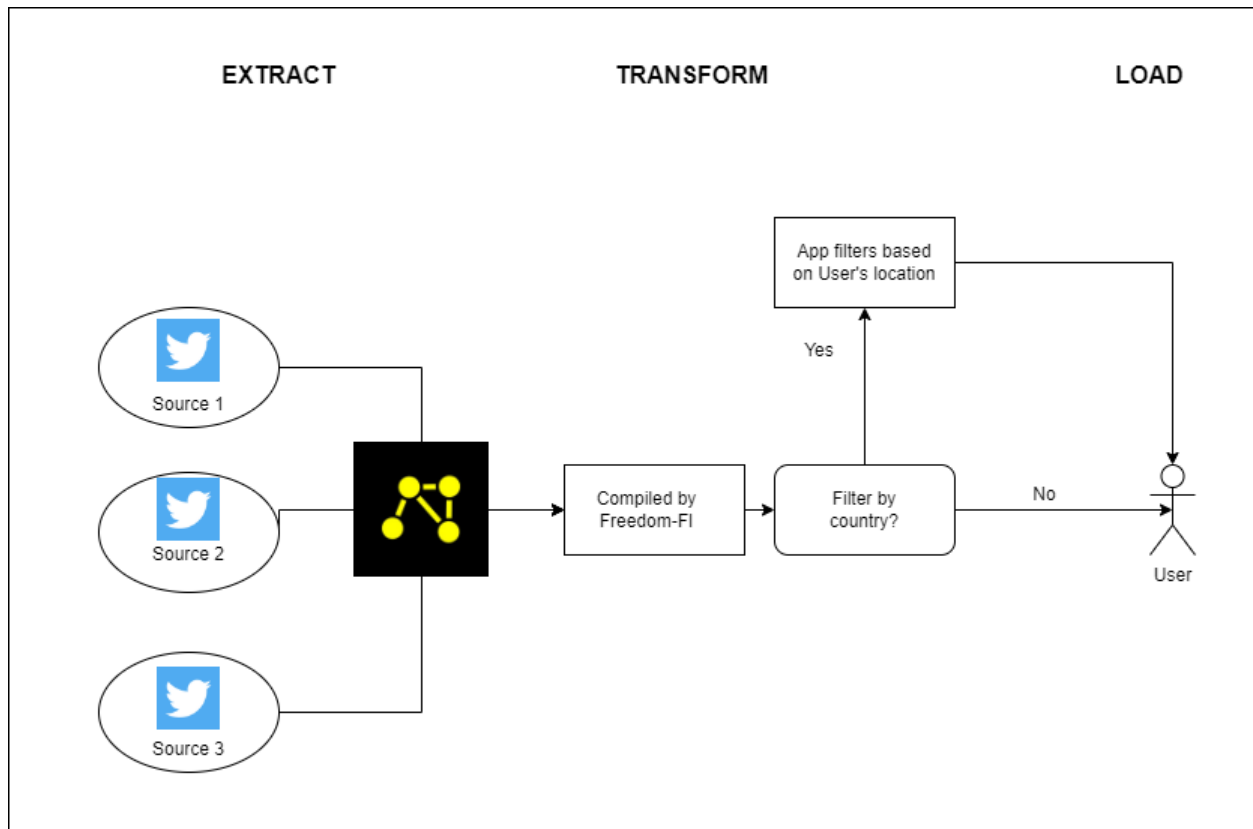
- No user stories

System Design

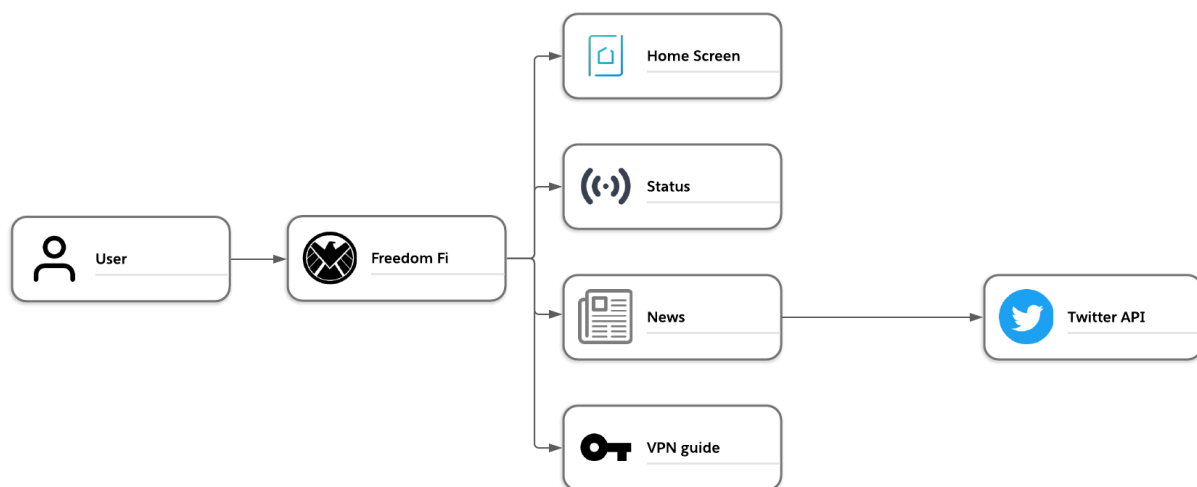
This section contains information on the design decisions that went into this project. The architecture patterns are outlined and explained. The entire system is shown in a package diagram and the subsystems are explained. Finally, the design patterns used in the project are discussed.

Architectural Patterns



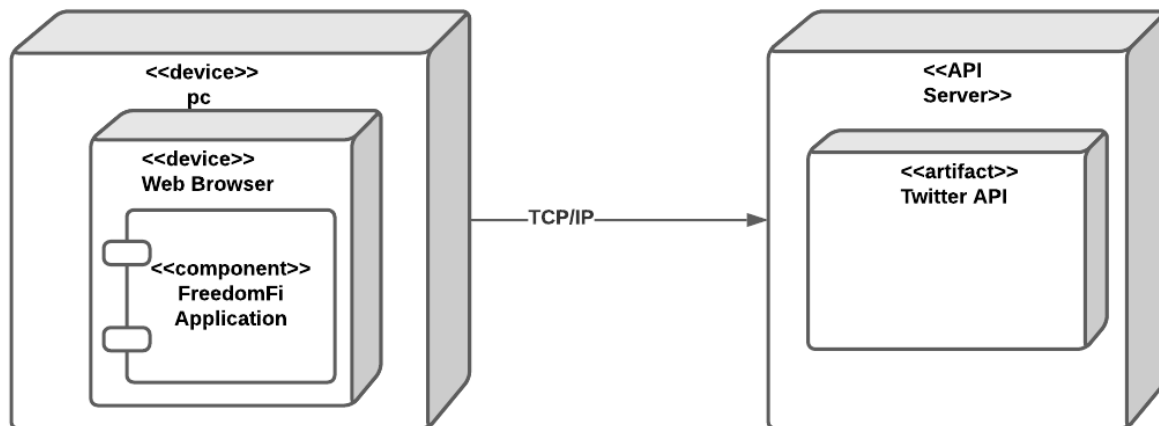


System and Subsystem Decomposition



The system and subsystem decomposition is used to interpret how the application is structured. The application was made with Flutter Dev and Visual Studio Code was used for the IDE. The project connects with the public Twitter API to pull tweets from the twitter account, Netblocks, and returns it to the users news page.

Deployment Diagram



Design Patterns

The design we went for Freedom Fi was the layered architecture, which is appropriate for flutter/dart because they have 3 different layers to the logic, and although the last layer is usually reserved for the database connection, since our app did not need to store data in a database, it was instead categorized as the API layer.

System Validation

Case ID	Call to Twitter API
Purpose	The app will request access to retrieve tweets from the Netblock twitter account and return that information back to the user.
Expected results	The screen will display tweets from Netblocks home feed
Actual results	Pass: The screen displayed tweets from Netblocks home feed

Case ID	Select Your Country
Purpose	Based on the selected country of the user it will display Freedom Index reports and display if they are free of blocks.
Expected results	Displays a list of countries that the user can select to filter countries of interest for a more diluted search
Actual results	Pass: After selecting a country, the user can see information regarding that selected country

Case ID	Status Page
Purpose	Show user country of choice and recent information/news reported by sources mentioned (Reporters Without Borders, Freedom of The Press, etc.)
Expected results	Displays a list of countries that the user can select to filter countries of interest for a more diluted search and news reported by the sources mentioned above
Actual results	Displays a list of countries that the user can select to filter countries of interest for a more diluted search and news reported by the sources mentioned above

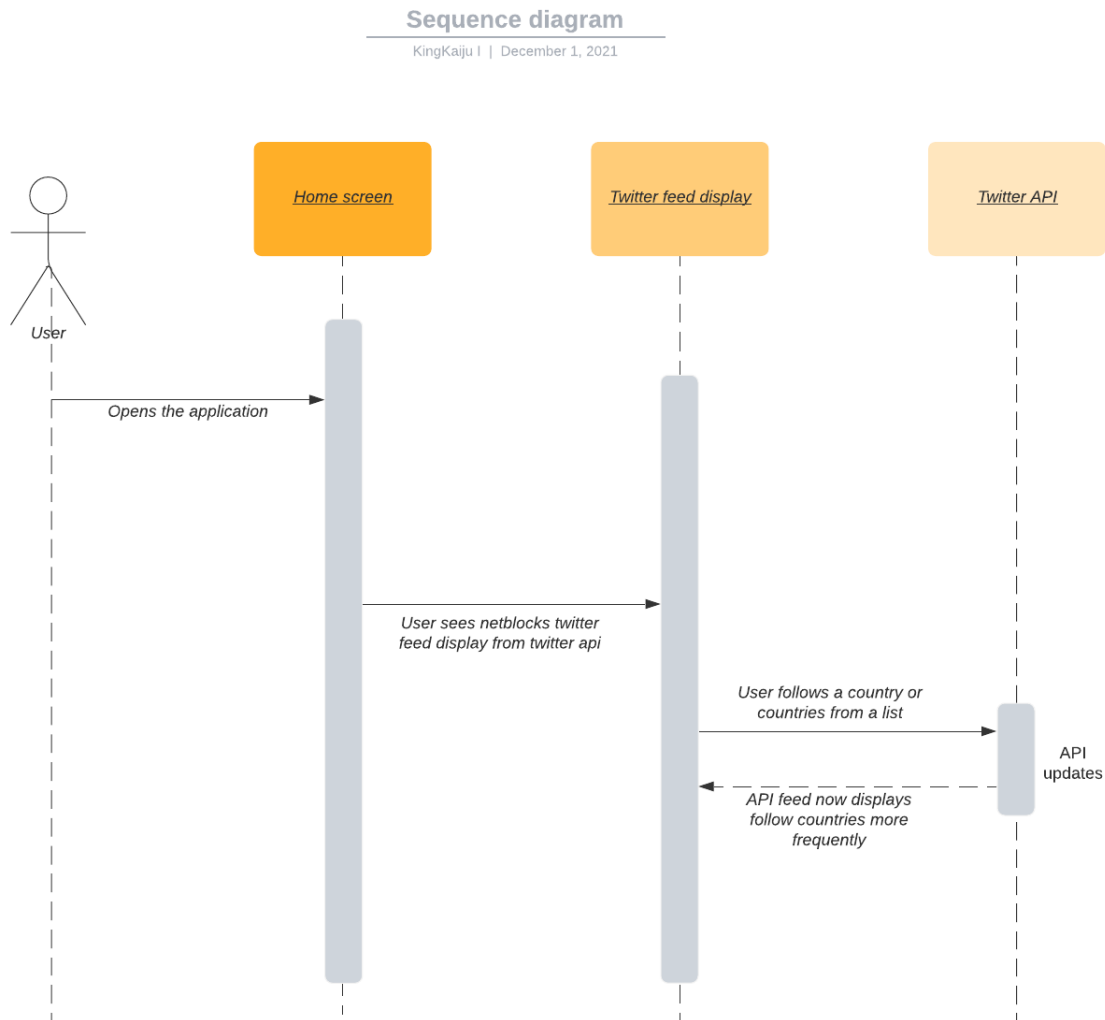
Case ID	Hamburger Bar (Side Menu)
Purpose	Shows user all pages that can be accessed
Expected results	When clicked, gives user option to click all pages excluding the one the user is on
Actual results	When clicked, option to click all pages excluding the one the user is on is displayed

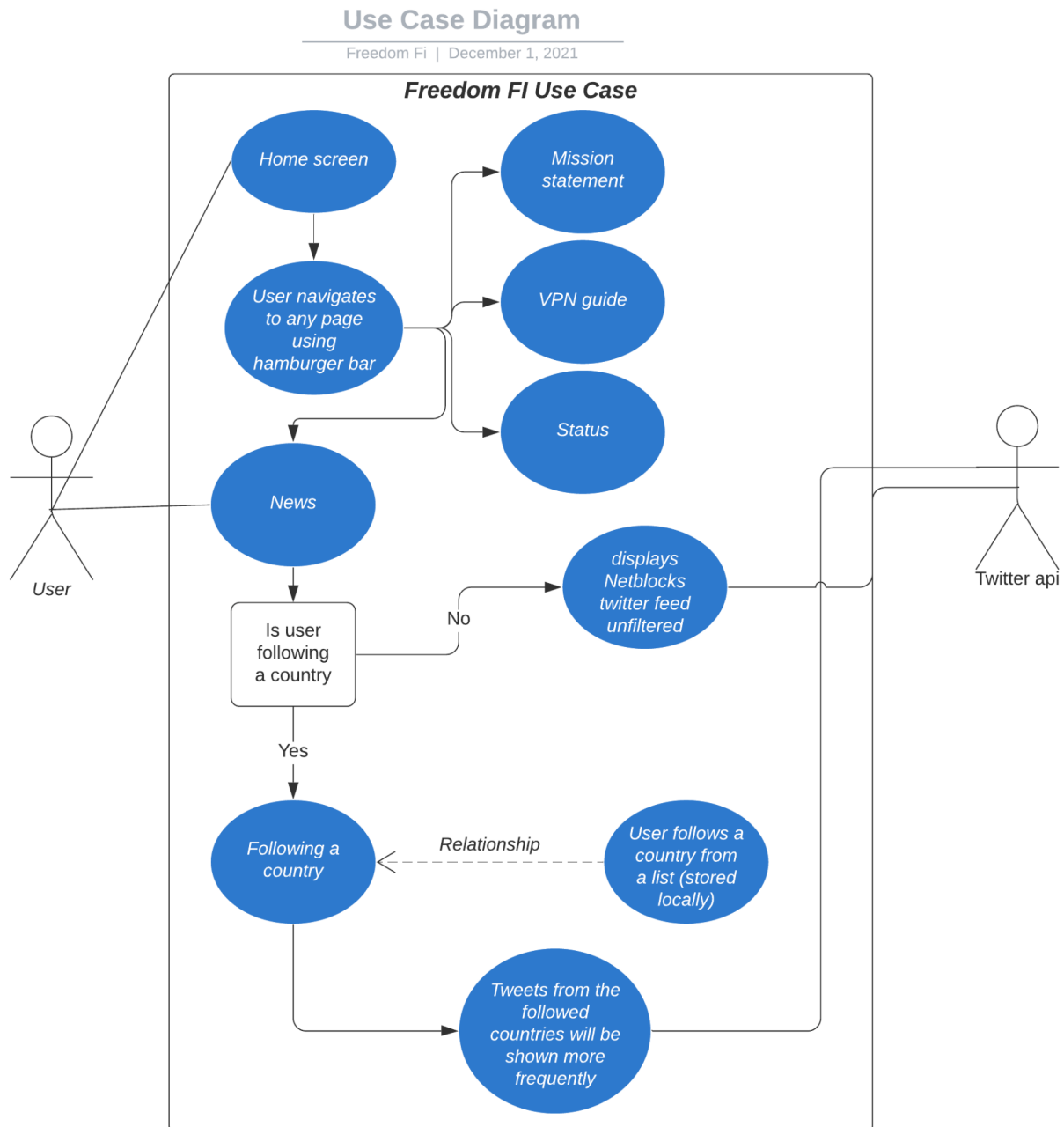
Glossary

- **API:**
 - Application Program Interface.
 - It is a set of definitions, communication protocols, and tools for building software.
- **UI:**
 - User Interface.
 - This is where the user and the computer/mobile device can interact with each
- **UML:**
 - Unified Modeling Language.
 - A general-purpose modeling language to provide a standard way of visualizing how a software system works.
- **User Story:**
 - A statement describing a user, what they want and why they want an action.
 - It is used in Agile development to help manage how software should work.

Appendix

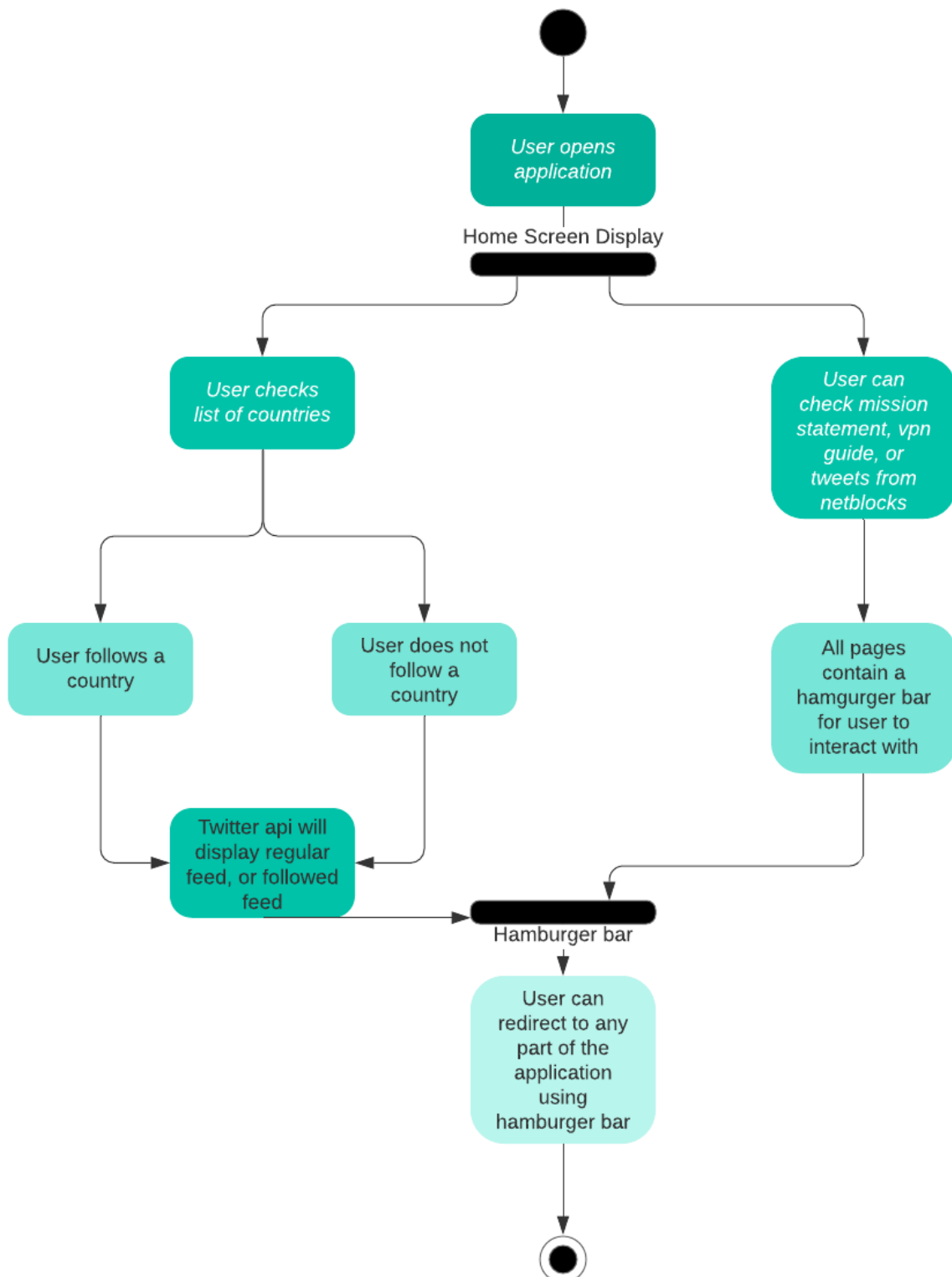
Appendix A - UML Diagrams





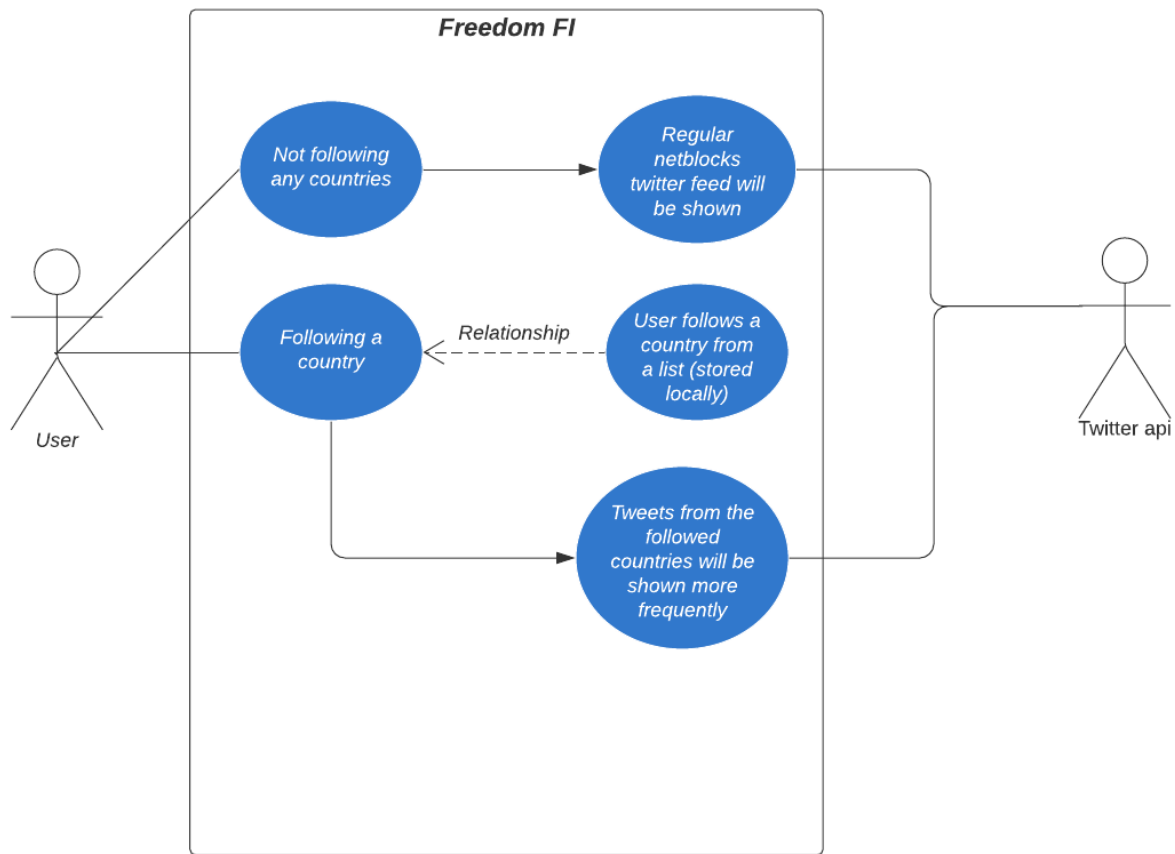
Activity diagram

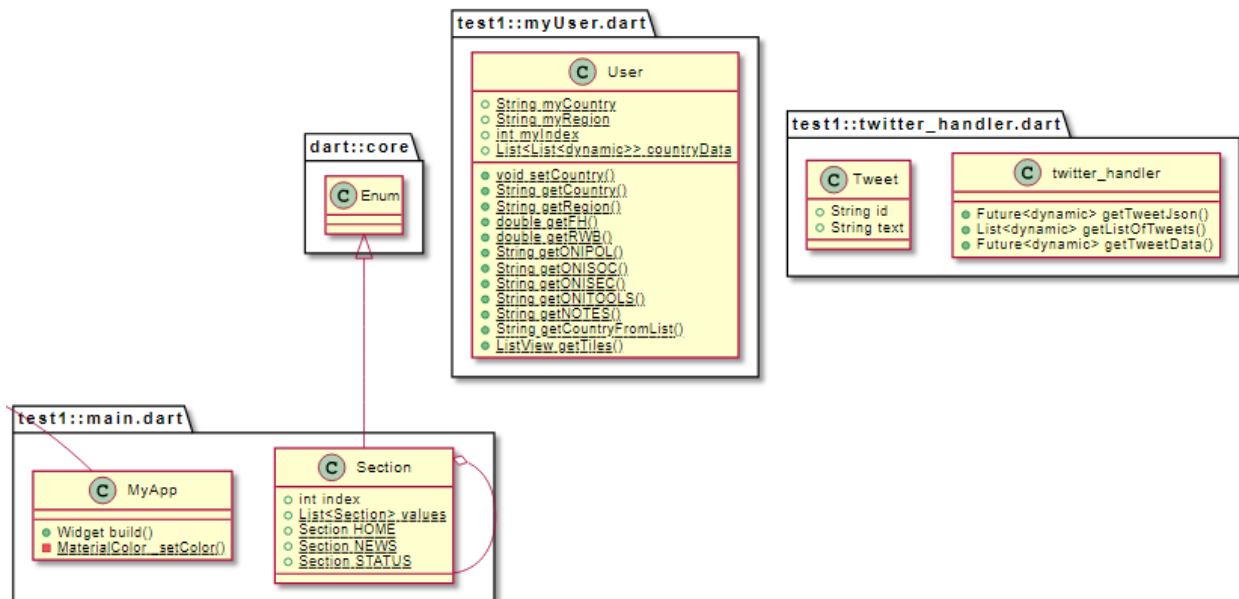
Freedom Fi | November 29, 2021



Use Case Diagram

Freedom Fi | November 29, 2021

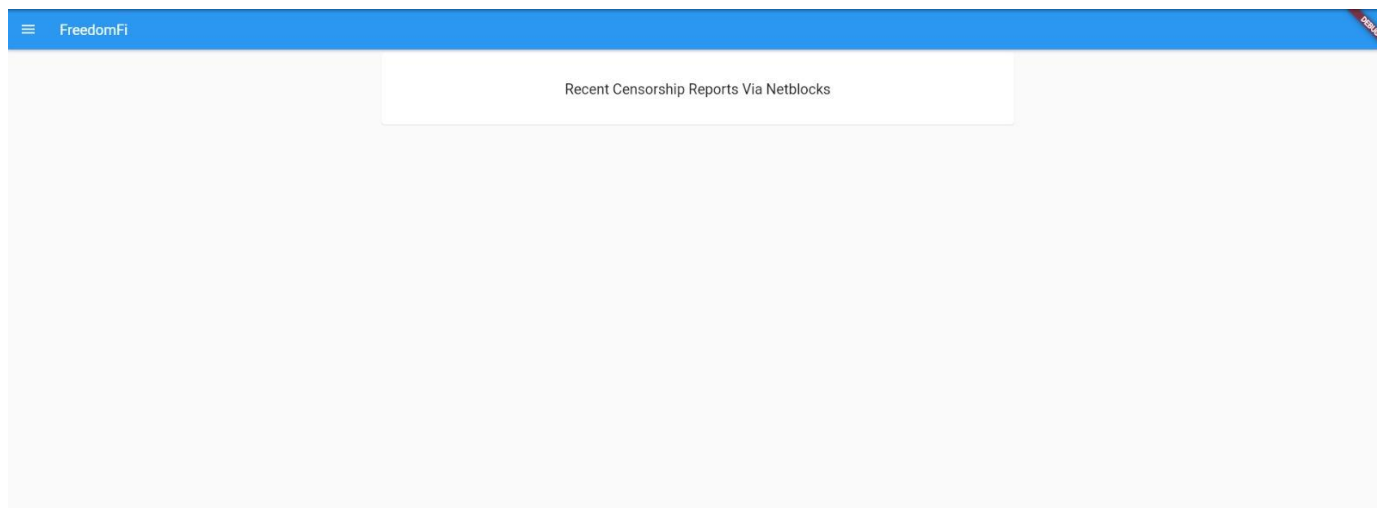


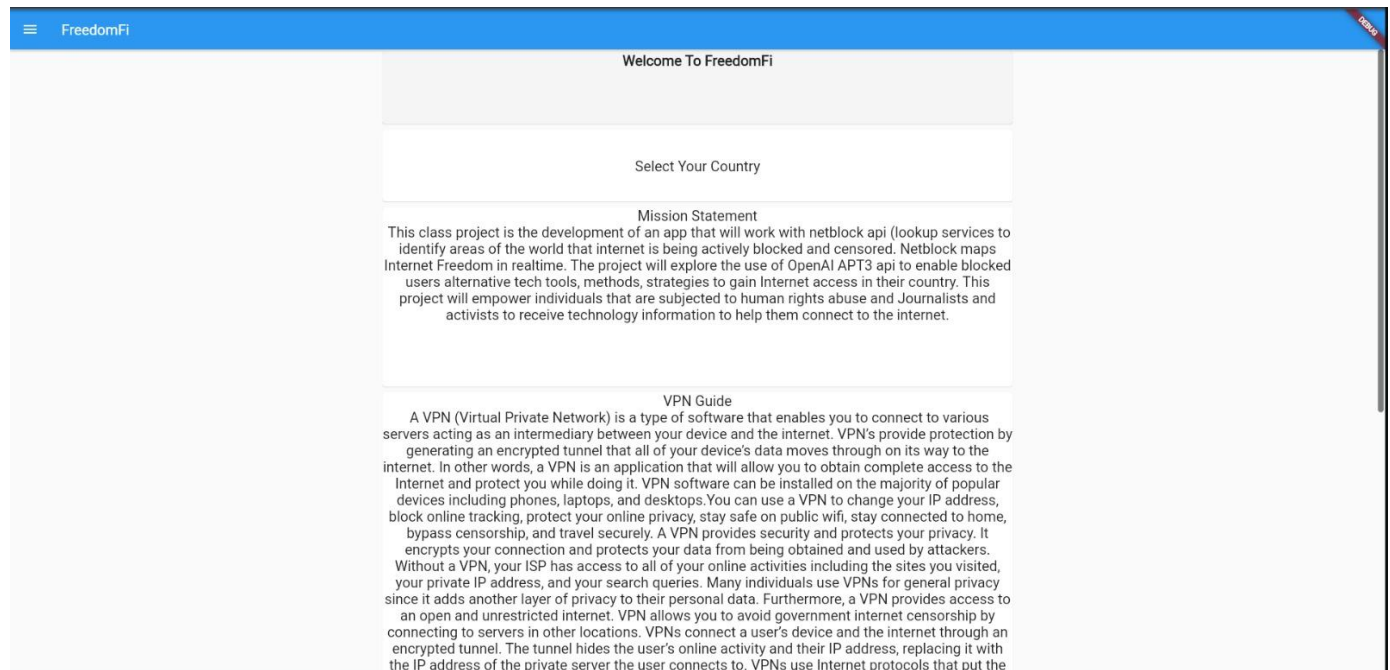


Class Diagram:

- File too large to show fully | linked below
- <https://bit.ly/3pi1ZBq>

Appendix B - User Interface Design





FreedomFi

Select Your Country

Asia

No Notes For This Country

Reporters without Borders Press Freedom Index has found this country's press to be in a:
DIFFICULT SITUATION

Freedom House Freedom Of the Press Report has found this country's press to be: NOT FREE

ONI Political Filtering: OpenNet Initiative Classifications has found this country's press to have: NO
EVIDENCE OF FILTERING

ONI Social Filtering: OpenNet Initiative Classifications has found this country's press to have: NO
EVIDENCE OF FILTERING

ONI Security Filtering: OpenNet Initiative Classifications has found this country's press to have: NO
EVIDENCE OF FILTERING

FreedomFi	
Afghanistan	✓
Albania	✓
Algeria	✓
Andorra	✓
Angola	✓
Antigua and Barbuda	✓
Argentina	✓
Armenia	✓
Australia	✓
Austria	✓
Azerbaijan	✓
Bahamas	✓
Bahrain	✓
Bangladesh	✓
Barbados	✓
Belarus	✓
Belgium	✓
Belize	✓

FreedomFi

Open navigation menu

1464325585749090310

Confirmed: Network data indicate a fall in internet connectivity in parts of #Iran from the morning of Thursday 25 November.

The ongoing outage has subnational impact and may be connected to protests against the government's water management policies #Ahvaz

<https://t.co/2szRwQawfx>

1463635728366292994

Update: Burkina Faso's government has extended the national mobile data shutdown by another 96 hours. Service was cut on Saturday night and was due to resume earlier today. The information blackout comes amid anti-government protests.

Report: <https://t.co/izYzIPUU19> <https://t.co/2e0rMYqSV6>

1463528012092219395

Update: Social media and messaging platforms have been restored in #Sudan on all major internet providers. Telecoms disruptions since the 25 October military coup included a near-total blackout and partial restrictions that stifled human rights.

<https://t.co/uVVZKchHSS> <https://t.co/C2YdXvvPNS>

Appendix C - Sprint Review Reports

Sprint 1 Review Meeting Minutes (09/10):

Start Time: < 8:10 p.m.>

End Time: < 8:38 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

- No user stories were accepted since we didn't have many user stories besides researching and selecting a framework

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

- No user stories to reject or move to the product backlog

Sprint 2 Review Meeting Minutes (09/26):

Start Time: <8:30 p.m.>

End Time: <8:50 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

- Freedom FI sample home page

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

- None

Sprint 3 Review Meeting Minutes (10/08):

Start Time: <8:10 p.m.>

End Time: <8:39 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

- Choose framework, Logo and color schemes.

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

- None

Sprint 4 Review Meeting Minutes (10/24):

Start Time: < 7:49 p.m.>

End Time: < 8:27 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

- Implement feature of the home page

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

- Implementation of API calling to netblocks

Sprint 5 Review Meeting Minutes (11/07):

Start Time: < 8:07 p.m.>

End Time: < 8:48 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

-

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

- create different pages, connect to netblocks api

Sprint 6 Review Meeting Minutes (11/21):

Start Time: < 8:17 p.m.>

End Time: < 8: 54 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

- Connect to Netblocks API

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

- Create different pages

Sprint 7 Review Meeting Minutes (11/28):

Start Time: < 8:15 p.m.>

End Time: < 8:49 p.m.>

Attendees	Status (Present/Absent)
George Morera	Present
Leopoldo Rios	Present
Bryan Simmons	Present
Maheer Ahmed	Present
Adriana Beltran	Present
Osniel Oliva Jr.	Present
Carlos Sautie	Present
Javier Oliva	Present
Gaby Perez	Present

After a show and tell presentation, the implementation of the following user stories was accepted by the product owners:

- N/A

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting.

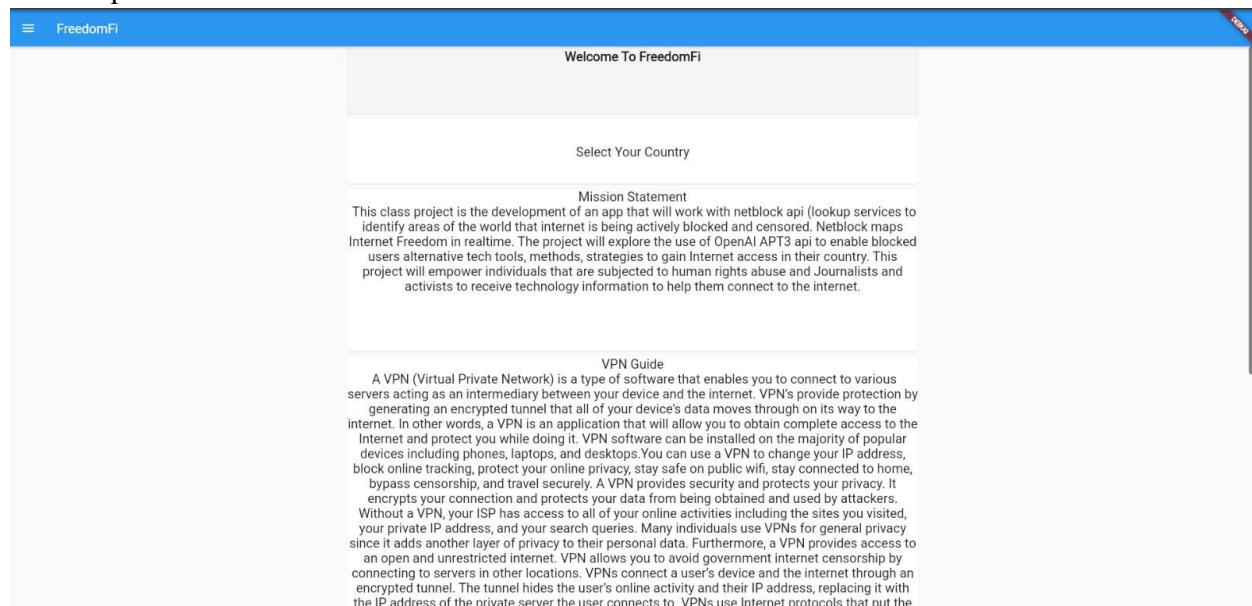
- countermeasures page, connect to netblocks api

Appendix D - User Manuals, Installation/Maintenance Document, Shortcomings/Wishlist Document and other documents

User Manual:

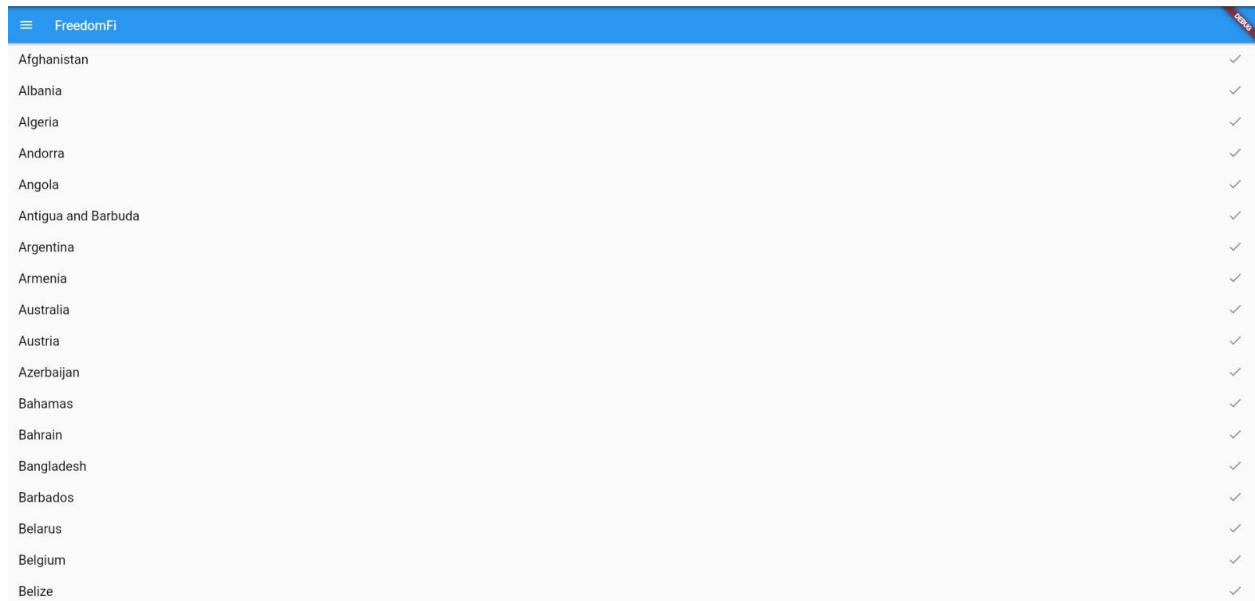
Home page:

Opening up the app will greet you to the home page and in the interest of client privacy there will be no user login necessary. The home page includes the country selection tool, the mission statement of Freedom Fi, a VPN installation guide, and a future roadmap of further features yet to be implemented.



Selection page:

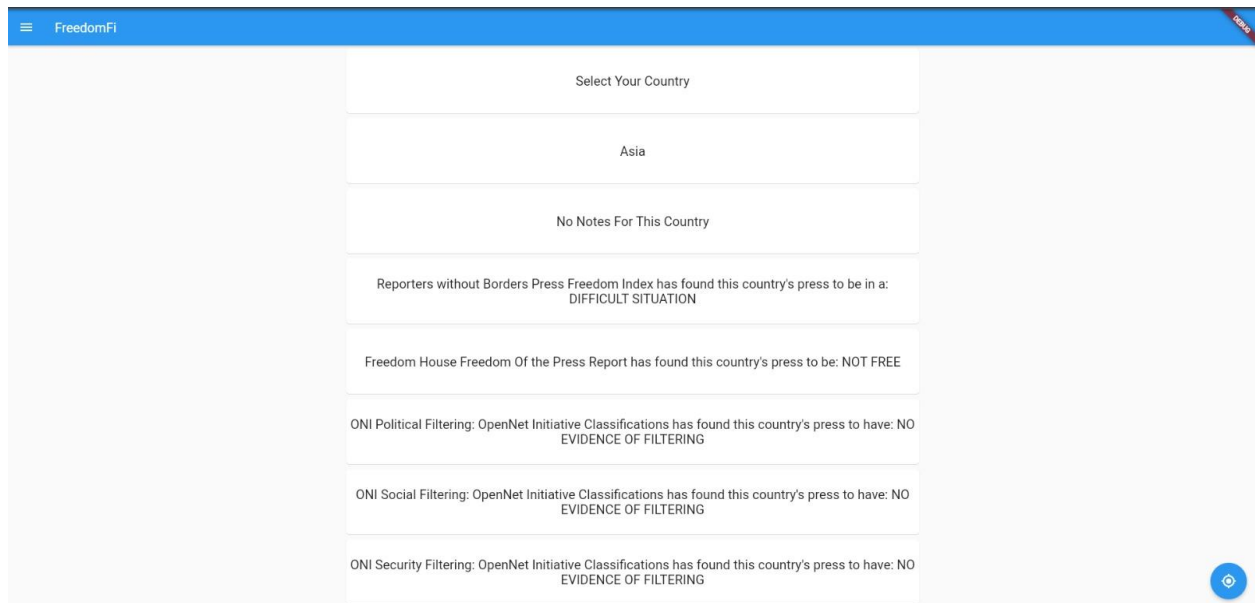
Clicking on “Select Your Country” will open up this list of countries that are available to view.



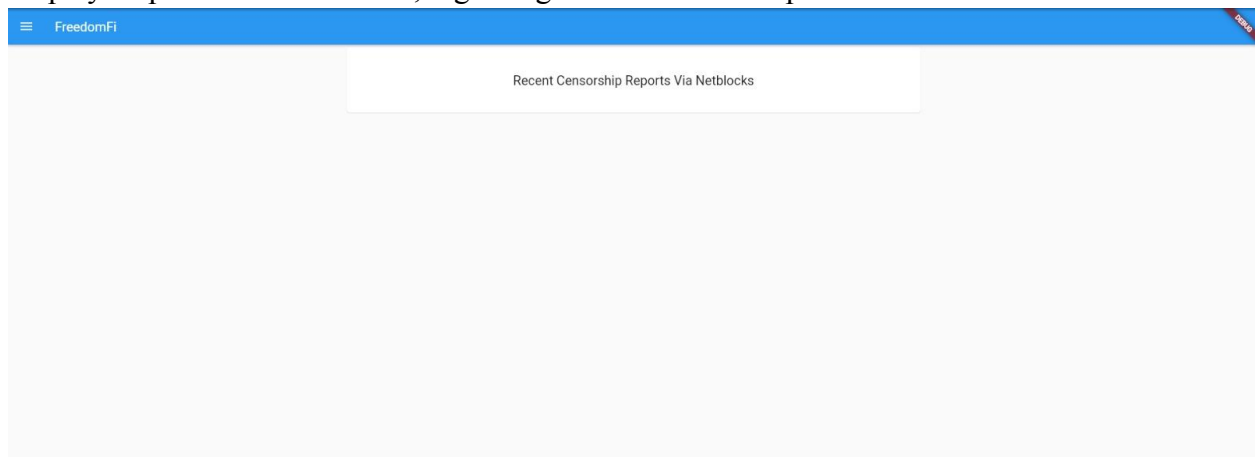
FreedomFi	
Afghanistan	✓
Albania	✓
Algeria	✓
Andorra	✓
Angola	✓
Antigua and Barbuda	✓
Argentina	✓
Armenia	✓
Australia	✓
Austria	✓
Azerbaijan	✓
Bahamas	✓
Bahrain	✓
Bangladesh	✓
Barbados	✓
Belarus	✓
Belgium	✓
Belize	✓

Country page:

The selected country will then bring up this page where the user will be able to view any significant notes about the country, its Index of Freedom, the state of the press, as well as any filtering done to the media. This information was provided by non-profit organizations that are monitoring the situation of multiple countries where media is thought to be censored.

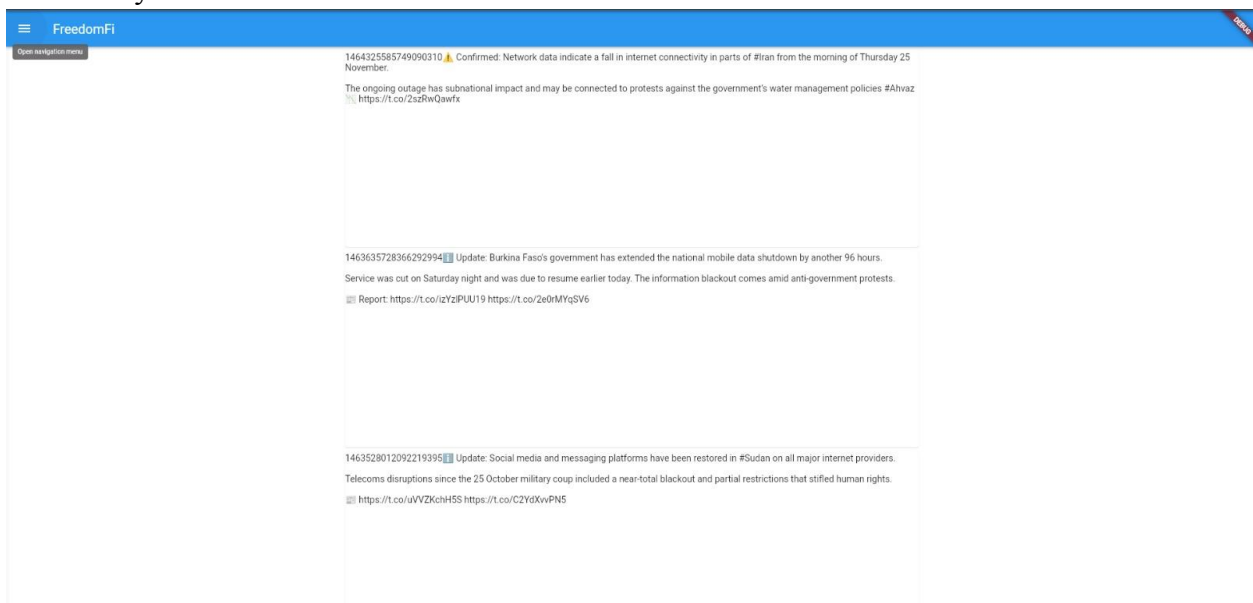
**News page:**

Displays reports from netblocks, regarding internet censorship news.



Details page:

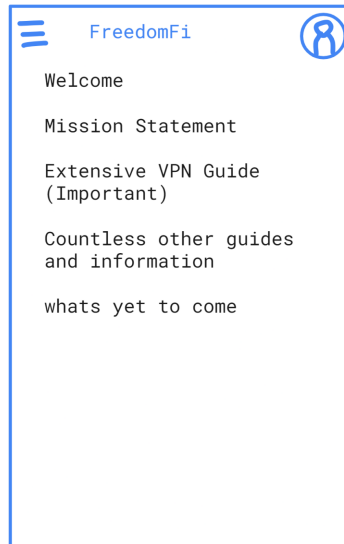
This page will display the Netblocks information that was acquired through the twitter API call. It currently lists an index number (which will be removed from the visible UI in the future), the contents of the tweet, as well as the link provided to let the user delve further into the issue should they choose to.



Shortcomings/Wishlist:

1. Home page UI update - We wish to create a more visually appealing interface for the user that will also clearly and concisely be able to navigate the application.

Home



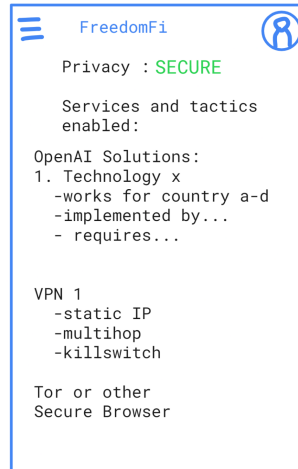
2. News page UI update - Streamline how the information will be displayed to the user and have an added country filter.

News



3. Countermeasures page -The countermeasures page will ensure the user has a secure connection to the internet, along with a list of some services and tactics that are enabled for the user to keep their internet freedom. The main services would be OpenAI solutions, which would have a summary of solutions being used by the app, and also include some VPN recommendations and browser suggestions.

Countermeasures



4. Prevention Page - The prevention page would be more used by countries that already have internet freedom and would like to keep it. It would offer legislation regarding internet censorship either current or past based on your country, and would also offer communities and groups the user can join if they want to engage with others of the same interest.

Prevention



Installation/Maintenance:

Note: Since this is the first iteration of the app, it has not currently been published anywhere, and can only be downloaded from the github repository.

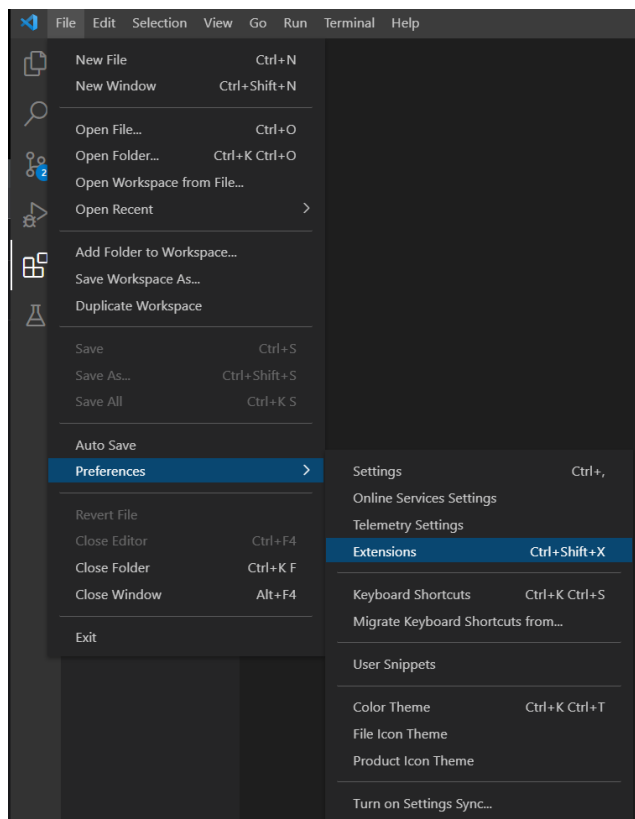
PREREQUISITES:

After selecting an IDE of your choice (Visual Studio Code preferred), download the dart and flutter SDK and extract them so you can enable them on your IDE .

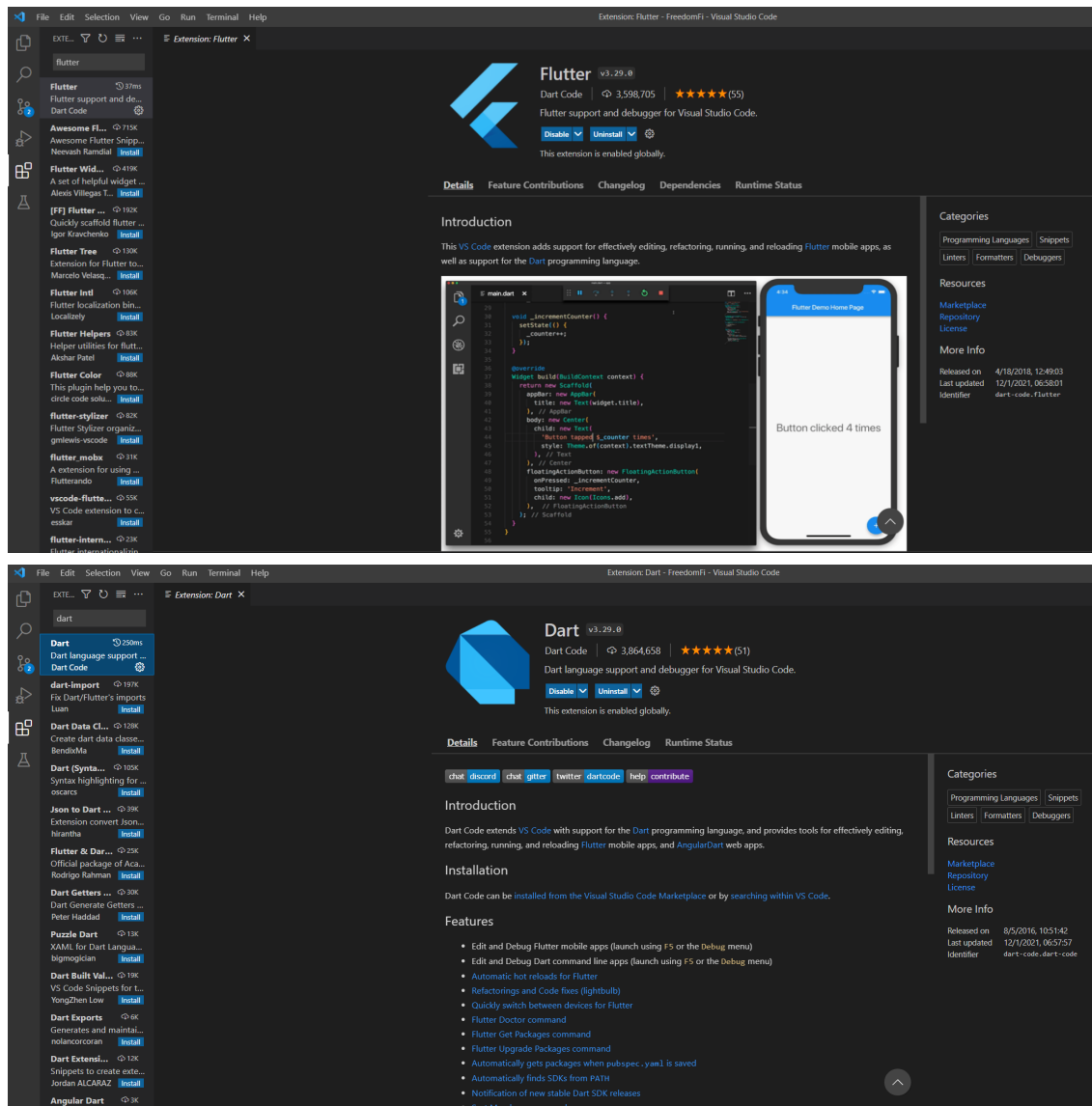
Flutter: <https://docs.flutter.dev/get-started/install/windows>

Dart: <https://dart.dev/get-dart>

The demonstration below is done using Visual Studio Code for how to setup dart and flutter:
Click file, preferences, extensions to be brought onto the extension download window.

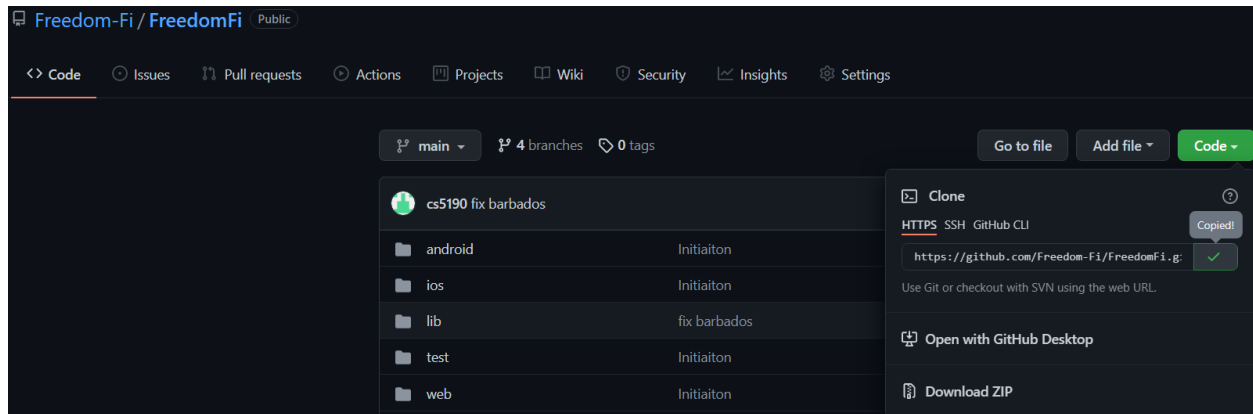


Search for both flutter and dart in the extension marketplace, and install both of them (They say uninstall in the picture because it is already installed for me, but it should say install)

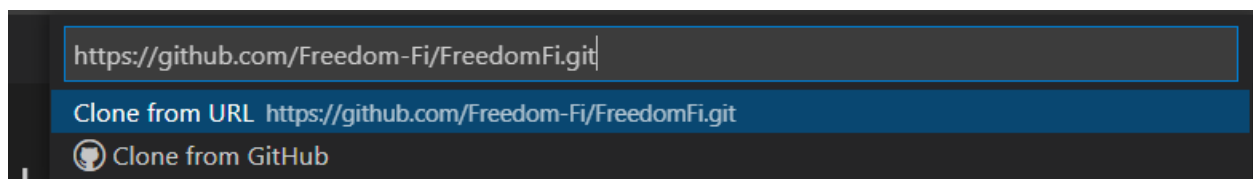
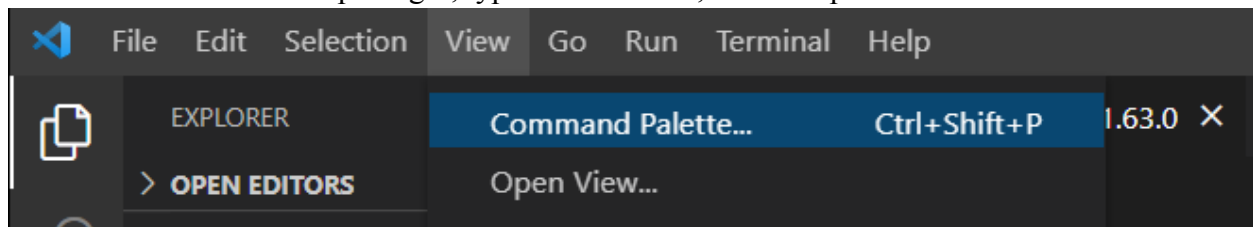


After installing Flutter and Dart, all that is left to do is download the code from the github repository and upload it to your IDE:

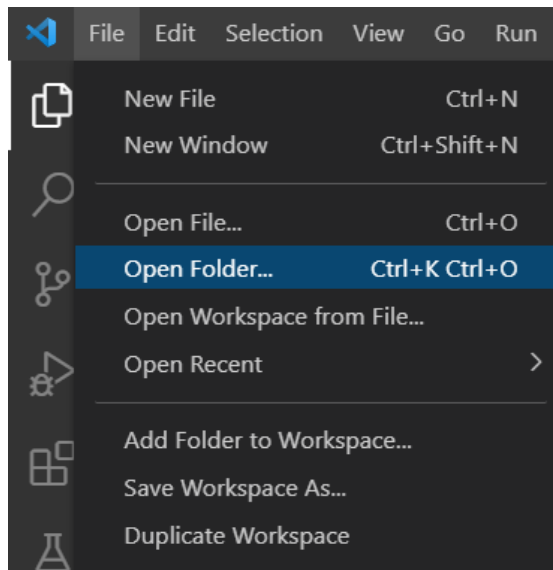
<https://github.com/Freedom-Fi/FreedomFi>



After copying the code link, open the command palette by clicking View in the top left, then Command Palette. After opening it, type in Git: Clone, and then paste the URL in the text box.



If you are not able to git clone the repository, the other method to access the code would be to download a zip file, extract it, and open folder in VS Code:



After installing the code from the repository or zip file, change the directory in Visual Studio by going into the terminal and typing “cd <Your github code file directory>”, and then running “flutter doctor”, “flutter pub get”, and “flutter pub upgrade” into order to get and update all dependencies of the code. This is necessary to make sure everything is update and working properly.

```
PS C:\Users\georg\Desktop\FreedomFi\FreedomFiGithub\FreedomFi> cd C:\Users\georg\Desktop\FreedomFi\FreedomFiGithub\FreedomFi
PS C:\Users\georg\Desktop\FreedomFi\FreedomFiGithub\FreedomFi> flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 2.5.0, on Microsoft Windows [Version 10.0.19043.1348], locale en-US)
[✓] Android toolchain - develop for Android devices (Android SDK version 30.0.3)
[✓] Chrome - develop for the web
[✓] Android Studio (version 4.2)
[✓] VS Code (version 1.63.0)
[✓] Connected device (2 available)

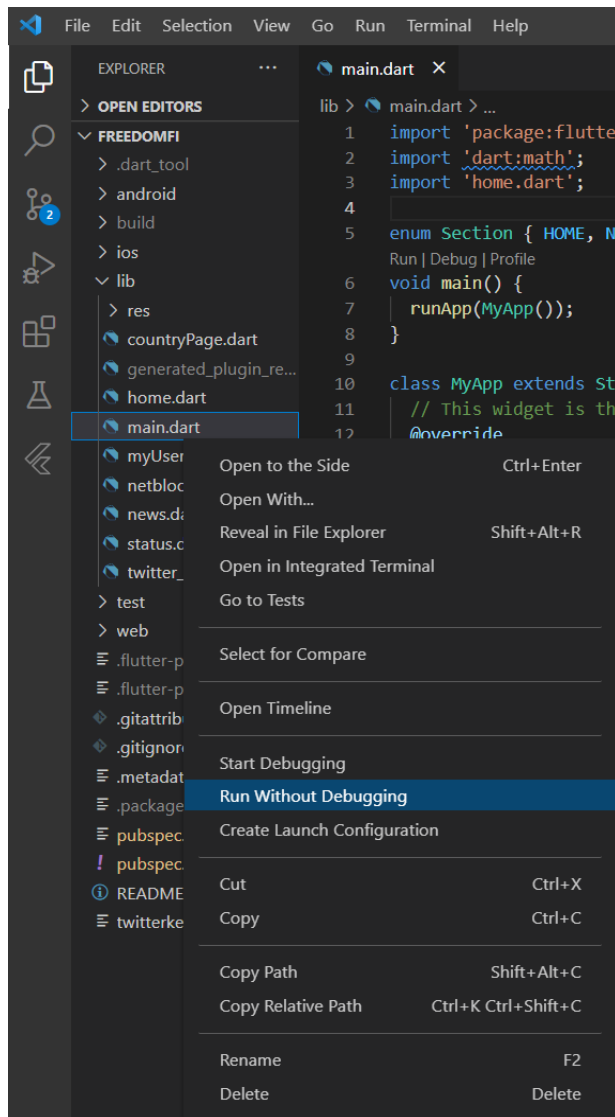
• No issues found!
PS C:\Users\georg\Desktop\FreedomFi\FreedomFiGithub\FreedomFi> flutter pub get
Running "flutter pub get" in FreedomFi...
1,000ms
PS C:\Users\georg\Desktop\FreedomFi\FreedomFiGithub\FreedomFi> flutter pub upgrade
Resolving dependencies...
```

RUNNING THE CODE:

Note: Because a fix has not been issued for our version of Flutter's https API call, a fix will have to be issued in order to get the code running. The instructions for the fix can be found here:

<https://stackoverflow.com/questions/65630743/how-to-solve-flutter-web-api-cors-error-only-with-dart-code/66879350#66879350>

After following all instructions listed above, simply right click on main, and select run without debugging, and the code should run properly:



References

- Visual Studio Code
 - <https://code.visualstudio.com/docs>
- Flutter
 - <https://docs.flutter.dev/>
- Open AI
 - <https://beta.openai.com/docs/introduction/overview>
 - <https://beta.openai.com/docs/api-reference/introduction>
- Netblocks
 - <https://ip-netblocks.whoisxmlapi.com/api/documentation/making-requests>