Coronavirus Information iOS App

Developer:

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Introduction:

Learn about coronavirus safety and readiness today with Coronavirus Info. You will not only find information on how the disease spreads, symptoms, treatment, prevention, and more on this app, you can also see the latest news on COVID-19, updates on cases in every state, maps for data tracking. With data tracking, you can find out about the current situation of the infection worldwide. For our US users, you can find state-level or even county-level statistics on COVID-19. The number of confirmed cases and number of deaths for every country will be displayed on an interactive map.
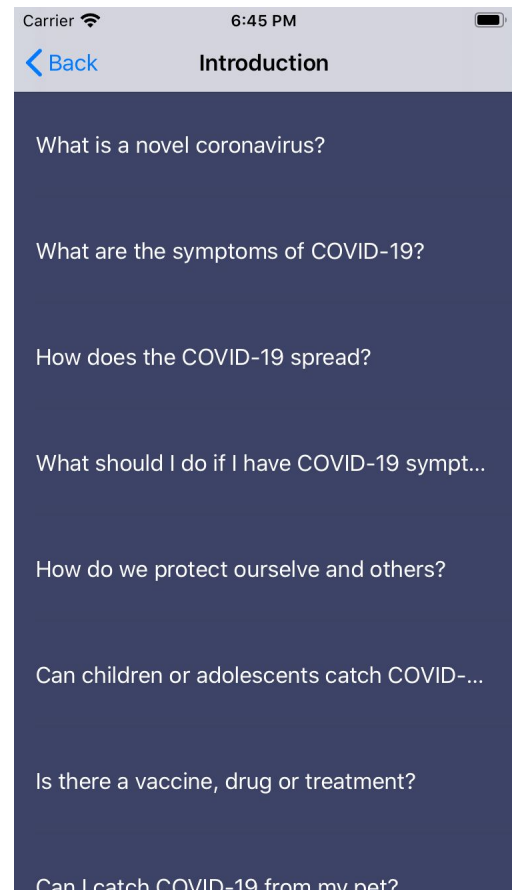
Coronavirus Info also includes a mini game to keep its users entertained while staying at home. In this game, you the player will try to save NYC from the coronavirus. Bats will fly over the city and drop deadly viruses. You need to prevent the virus from falling to the ground and vanish into thin air. With every successful hit on the virus, you will gain vaccine research points. The game is won when the vaccine research is completed.

A handful of residents are already infected, but infection rate remains slow. However, if you fail to stop viruses from spreading, more and more people in the city will get infected. The infection rate will grow exponentially depending on the number of viruses you missed. You will lose the game when the whole population gets infected.

Hope you are safe and healthy

Introduction

Graph

Mini Game

News

This is the main menu, here the user can choose to browse the general information of the virus, see the current data on confirmed cases and death rate, play a coronavirus related mini game, and check the latest news on COVID-19.
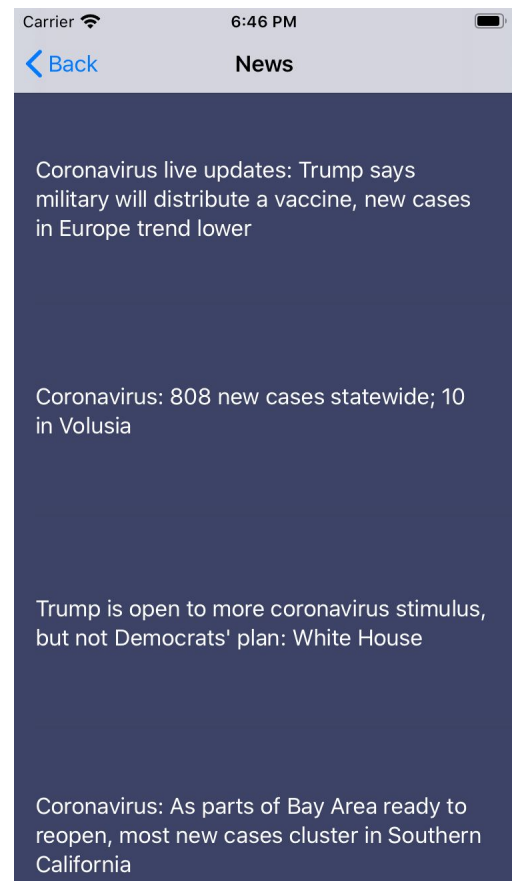
This is the introduction view full of general information of the virus from credible sources like CDC and WHO.

What is a novel coronavirus?

What are the symptoms of COVID-19?

How does the COVID-19 spread?

What should I do if I have COVID-19 sympt...

How do we protect ourselve and others?

Can children or adolescents catch COVID-...

Is there a vaccine, drug or treatment?
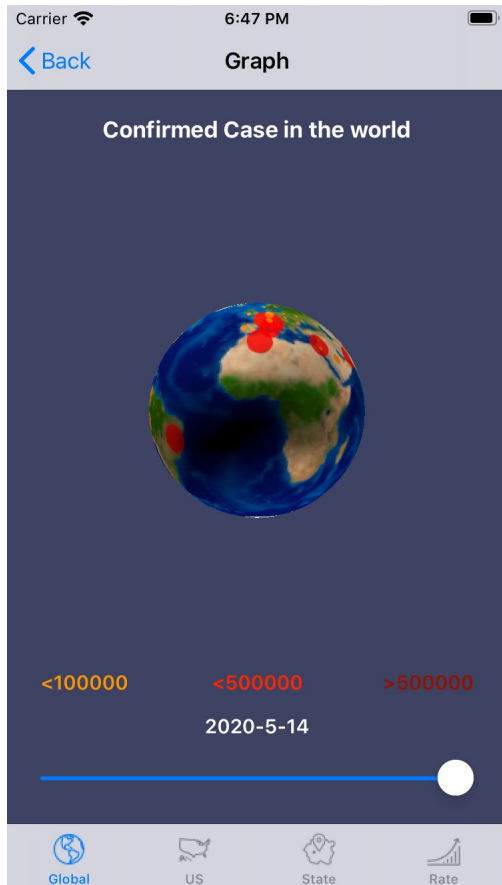
Can I catch COVID-19 from my pet?

This is the mini game view implemented using SpriteKit. The two progress bars at the top show the vaccine progress and percentage of population infected.
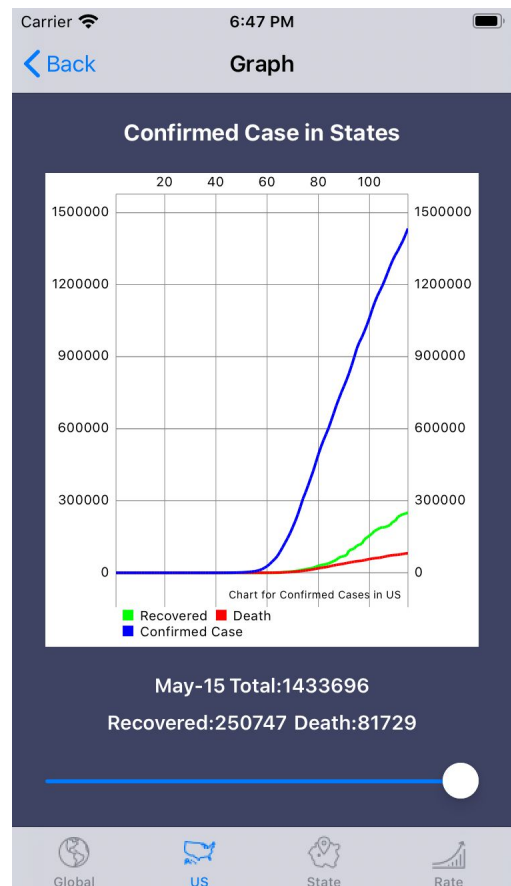
This is the news view. Each block of text is a hyperlink of an excerpt from the news that will redirect the user to the news article.
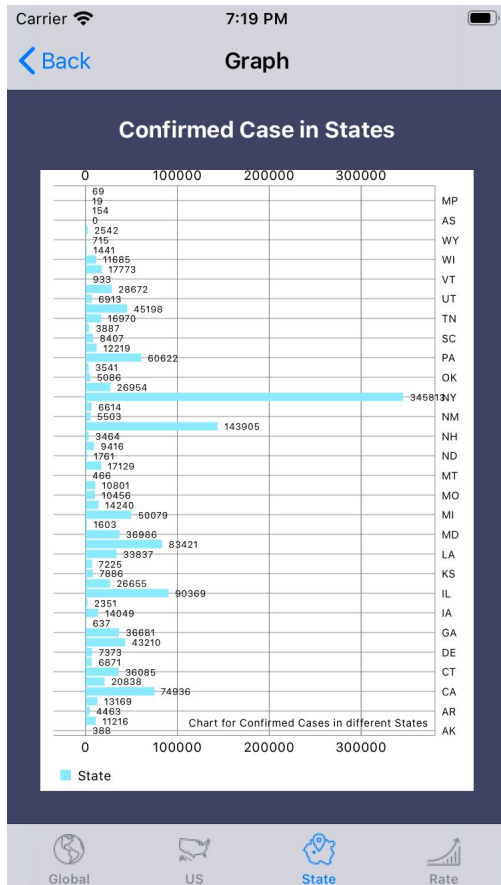
This is the graph for global confirmed cases. At the bottom there is a slider to change the date. The information will change depending on the date selected.

This is the graph for confirmed cases in the United States. At the bottom there is a slider to change the date. The information will change depending on the date selected.
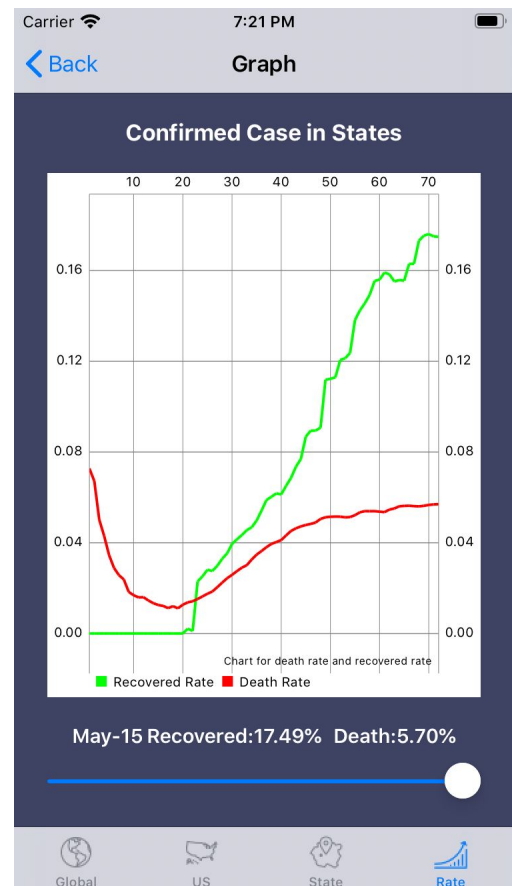
This is the graph for confirmed cases in every state.

The information is up to date.

This is the graph for death and recover rate in the United States. At the bottom there is a slider to change the date. The information will change depending on the date selected.

Modules used:

In Coronavirus Info, we apply IOS Charts as a module to generate the graph and display the data.

https://github.com/danielgindi/Charts

API used:

1. API for US daily coronavirus data: https://covidtracking.com/api/v1/us/daily.json

2. API for states current coronavirus data:

   https://covidtracking.com/api/v1/states/current.json

3. API for global daily coronavirus data: https://pomber.github.io/covid19/timeseries.json

4. API for news reports on coronavirus: https://api.smartable.ai/coronavirus/news/US

Outside elements and their sources:

1. The guideline for using charts as a module

   https://medium.com/@skoli/using-realm-and-charts-with-swift-3-in-ios-10-40c42e3838c0#.2gyymwfh8

2. The guideline for downloading a json file on the internet

   https://www.youtube.com/watch?v=3rpNDENQgPM

3. The guideline for building an earth scenekit:

   https://www.youtube.com/watch?v=DAiheSmhEAE

4. The guideline for converting UIview to UIimage:

   https://stackoverflow.com/questions/44511202/how-to-convert-uiview-to-uiimage-with-high-resolution

5. The guideline for creating a curl request:

   https://stackoverflow.com/questions/52032108/how-to-perform-a-curl-request-in-swift

6. Tab Bar Icons: downloaded from https://icons8.com/icon/pack/maps/ios

Contribution to the final project:

1. Yantao Luo is responsible for deciding the theme of our project, creating the Mini Game, managing the workflow, writing the documentations and correcting the details.

2. Runhai Lin is responsible for implementing the Introduction, Graphs and News, collecting and displaying coronavirus data in both 2D and 3D, building the storyboard and designing the logos.

3. Both of us are in charge of our respective user interface and the overall app design.

Instruction for Compiling and Running:

1. Wait for the installation of module IOS Charts.

2. Compile and Run it.

3. Use it following our UI design.