

# Forkwell Coronavirus Hackathon

## Team Eureka

### Team Background

Eureka consists of 3 university students who managed the frontend and 1 working individual who handled the backend tasks. 3 out of 4 of us had knowledge in coding and while neither of us had any sound experience with Android Studio, we decided to take it up as a challenge to work with the software to develop our prototype.

This project was handled remotely with our members working from Malaysia, Australia and Sri Lanka in collaboration using GitHub, Telegram, Zoom and Trello for communication. Each of us were entering unfamiliar territory eventually leading to us learning a multitude of things!

### Project Inspiration

One major factor playing an important role during this pandemic is the fear of citizens and thus, the rapid acceptance of falsified news. Additionally, the virus had such a drastic global effect because it couldn't be contained and individuals possessing the virus couldn't be identified in time.

Contact tracing is a practice being adopted in many places including Kerala, India. However, this process seems to be very tedious and time consuming. Eureka wanted to tackle this issue through automation of the contact tracing process and the way we decided to go about with this was to develop an app to keep track of a user's location and their movement.

### Intended Features

- User login
- Save user location at regular intervals
- Access to statistics and latest news (Global and Local)
- Map to view the areas with confirmed cases
- Step-by-step guidance for concerned users
- Points system to reward users following Govt orders and quarantine recommendations

### Prototype Features

- User login
- Save user location when app is opened
- Statistics dashboard (line chart and few number stats)
- Map with markers
- Ability to inform app that user has been tested positive for COVID-19
- Automated geolocation algorithm to identify users in close proximity to the infected user

### Future Developments

- UI improvements
- Store user location at regular intervals even when app is not open
- Improve api calls to retrieve statistics and news data
- Improve the guidance feature on the app to be step-by-step
- Send out notifications to users and govt authorities about positive COVID-19 cases
- Improve backtracking algorithm
- Development of API for other apps/organisations to use