

## **Report on “Epidemic Ender” application**

### **Main motive: “Ending the epidemics even COVID-19 from roots”**

#### **Objectives:**

1. To build an integrated application where users can see all the updates, see necessary resources for ending the current epidemic as well as handling future epidemics.
2. Identify any new cases in current as well as future epidemics and alert the people around the surroundings to be careful. In this way we can stop the epidemics at the start stage itself.
3. Using the data, help governments to identify potential hot-spot areas and propose lock-downs to be initiated to stop the further spread by clustering the data using machine learning algorithms and data visualizations. In this way rest of the country can participate in economic activities.
4. Helping citizens to find nearest help-centers like free-food areas and Testing Labs etc. For better visualization and show directions. Also alerting them when they are entering any hotspot zone or lockdown area.

#### **Motive:**

1. We can never expect, when we must face epidemic. And don't if we are ready to face one all the time. It takes years to find right drugs for any novel viruses (around 3 years). In this case social distancing is the only gateway for killing the virus only with the help of our immunity.
2. Using the technology, we can pin-pointedly identify new cases, which would help the modelling in better way. And also helps in keeping the medical records pin-pointedly for better analysis.

#### **Privacy Issues:**

We have also given enough thought on privacy issues. We provide the service without effecting the privacy of any user.

1. While having the location, we would show it as hotspot area (red zone) not pinpointedly the location for other users.
2. Also we don't keep the track of patient's or suspect's travel history.
3. Names and other details taken from this app is only visible to the admins (Authorities and governments).

### **Current Draw-backs:**

With the data currently available only from 3<sup>rd</sup> party volunteer groups, we are only able to identify the areas (i.e cities) and pointed them on the map.

If governments would be able to update with exact latitude longitude of the patients and suspects, this work would give better results reducing the work of the governments as well as increase flexibility for citizens as well.

(I believe our Indian government is successful enough in finding all the suspects by contact tracing and sure that they would be able to get exact locations).

As we are in lockdown, it helped us to settle at one place. I suggest government to update patient's exact locations and get results from our application and take help restricting the lockdown areas.

This would help in alerting newly identified places, if we done with the data so far accurately. By updating the exact patient's quarantine positions.

**(Hence the clustering and data shown are cities and not actual patient's themselves)i.e not accurate to the point.**

**Conclusion:** This would be integrated application for both users as well as governments in handling epidemics. Not only for other government, helps governments worldwide as well. And helps in restricting future anomaly's and alerting the surroundings and in-this way stopping the spread.

**Attachments:** Glimpse on the Video of our application, Visualization of clustering done in html format.

In this way, we can kill the virus completely with our immunity alone using our intellect.

**“And tell the microbial world that **we humans wont fear with the dangers that microbial world has got. And we can kill any of them staying united and with our intellect.**”**

**Note:** We are more than happy to submit it completely to the government to scale it up in all native languages. And maintain the unified database of patients with exact locations. (We also encourage any suggestions that we can implement).