



WCE HACKATHON'19

# IDEA SUBMISSION Abstract



1. Team name: **Pied Piper**
2. Team leader: **Vinod Kamat**
3. College name: **Pune Vidyarthi Griha's College of Engineering and Technology, Pune**
4. Theme and Subtheme: **Healthcare  
Real Time Epidemic Mapping**



# Project Abstract

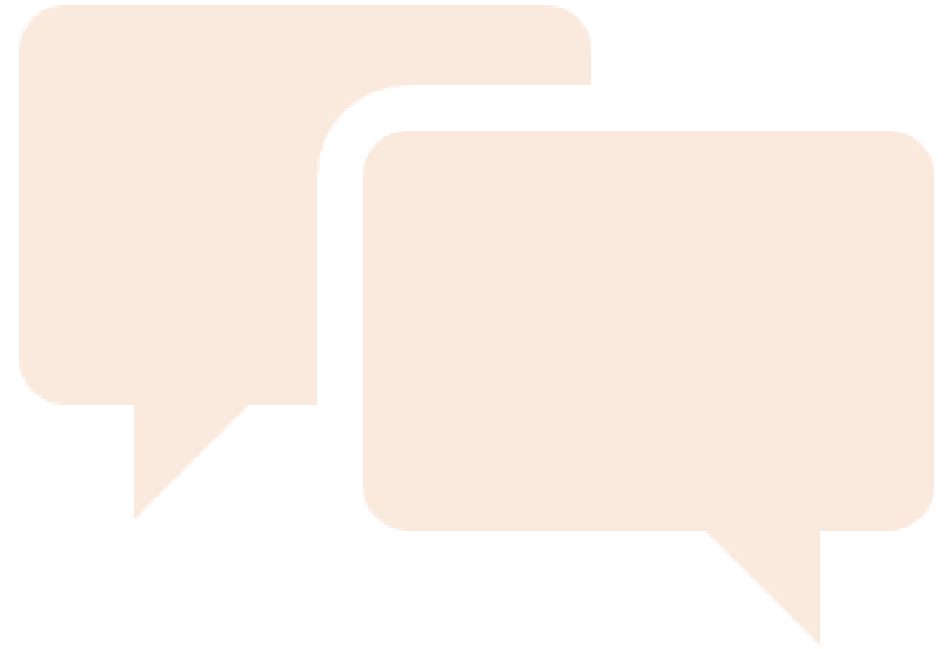
- The idea is to build an android app which will provide real time data of an epidemic spread area-wise
- Hospitals and doctors practicing individually can register on the app after establishing their credibility (by uploading their registration certificate)
- Doctors can log in over the app and provide following information about each patient visiting:
  - 1) Patient's Name                      2) Symptoms                      3) Disease Name
  - \* patient's name will be kept confidential
  - \* checklists will be provided for info. regarding symptoms and disease name, for fast and easy upload
- The disease wise count will be maintained on the app, and can be viewed by anyone at any time in the format of distribution on a map or using pictorial representations (like graphs, pie charts etc.)
- If the count of a particular disease goes high, the app will notify nearby hospitals and other users immediately
- As doctors and hospitals will receive real time information, they will be ready with proper treatment and solutions for the patient before situation goes out of control
- Based on information over an app doctors can alert society about disease as well as precautions that need to be taken



# Team members' Roles and Responsibilities

Team leader: Vinod Kamat

- **Shreyas Garud:**  
UI design (front end development)
- **Vinod Kamat and Prashant Bhandari:**  
Android development using Java (app logic)
- **Adwait Bhope:**  
Firebase and Google App Engine (backend development)





# Market research

- The needs of doctors and hospitals are that they need to know about the diseases that are currently spreading in neighboring as well as their own region and also know its impact. This app on the basis of data collected from all the hospitals and doctors will provide statistics of a particular disease and also with help of map will tell the regions that are under its impact and its intensity.
- Currently there are GIS based technology in India for real time epidemic mapping. But problem with this technology is that it is not used by local doctors or hospitals .They get this information only through news and papers, once that particular disease is rooted in the region. There is no such app that is used by the doctors or hospitals which will give them real time epidemic mapping.
- This app will display information that is provided on the basis of the data from verified doctors and hospitals. This app intends in helping doctors and hospitals . Hospitals and doctors will use this app and advice patients to take precautionary measures accordingly .
- The more hospitals, doctors will start using this app the better it will be to analyze how disease is spreading from one region to another. This app will be free and will help to understand the impact of each disease region wise . This app aims in improving the medical approach in such way that it will consider the analytical perspective too.



# IDEA

- **Objective:** To track epidemics in real time
- **Proposed design:** The Android app will be based on Google Firebase with the extension of Google App Engine as back end. These services will enable real time data syncing across the users.
- **Innovativeness:** The innovative part of the app is that it is real time and beneficial to hospitals as well as regular people. Anyone can use the app and infer from available data. They can thus take precautionary measures, and avoid falling for the disease.
- **Show-Stopper:** Changes in API policies

Java, XML
Android Studio
Google Maps API
Firebase
Google App Engine

Technology Stack

