

# TEAM TECHJAMMERS

## Team members :

- SNIGDHA LABH | 2021 | SYMBIOSIS INSTITUTE OF TECHNOLOGY
- SMIT SHAH | 2021 | SYMBIOSIS INSTITUTE OF TECHNOLOGY
- SURYA TEJ | 2022 | SYMBIOSIS INSTITUTE OF TECHNOLOGY

# PROJECTS DONE-

Snigdha Labh	Smit Shah	Surya Tej
<ul style="list-style-type: none"><li>• Worked on Projects like Colour sorter machine using Arduino, Automatic Room lighting system using 8051 microcontroller, Parallel BMS(eco-friendly dc-dc boost converter), nuclear embedded system and echo music player android app(as a part of online course on Android App Development).</li><li>• Participated in eYRC'18 and eYRC'19 (Eyantra Robotics Competition) of IIT Bombay, Smart India Hackathon 2019 (Hardware Edition), and DST &amp; Texas Instruments India Innovation Challenge Design Contest 2019.</li><li>• Linkedin: <a href="https://www.linkedin.com/in/snigdha-labh-7b1096190/">https://www.linkedin.com/in/snigdha-labh-7b1096190/</a></li><li>• GitHub: <a href="https://github.com/Snigdha66">https://github.com/Snigdha66</a></li></ul>	<ul style="list-style-type: none"><li>• Worked on Projects like Alcohol Detector using Arduino, PWM based DC motor speed control using 8051, Parallel BMS.</li><li>• Participated in eYRC'18 and eYRC'19 (Eyantra Robotics Competition) of IIT Bombay, Smart India Hackathon 2019 (Hardware Edition), DST &amp; Texas Instruments India Innovation Challenge Design Contest 2019, Robocon 2020.</li><li>• Co-founder and Secretary of ROTONITY, colleges official Robotics Club</li><li>• Done a course on Programming with Python online with making website as final project.</li><li>• Linkedin: <a href="https://www.linkedin.com/in/smitshah-1304">https://www.linkedin.com/in/smitshah-1304</a></li><li>• GitHub: <a href="https://github.com/smitshah99">https://github.com/smitshah99</a></li></ul>	<ul style="list-style-type: none"><li>• Worked on Arduino projects like robotic arms, DIY wireless joystick, Fun projects- Arduino useless box, Mini Quadcopter PCB design</li><li>• Participated in Robocon 2020 as Electronics head for team Symbiosis Institute of Technology</li><li>• PCB designer intermediate courses.</li><li>• Linkedin: <a href="https://www.linkedin.com/in/surya-tej-9aa36217b">https://www.linkedin.com/in/surya-tej-9aa36217b</a></li><li>• Github: <a href="https://github.com/surya-999">https://github.com/surya-999</a></li></ul>

# Problem statement- CORONA SYMPTOM TRACKING AND ESCALATION

## OUR SOLUTION:

Our mobile application will be user friendly and it will help keep track of health details of the users. Following modules will be there:

- **Language preference-** User can select language whichever they are comfortable in.
- **Customer Login-** User have to login into the app and give details about his/her name, gender, area of residence, phone no. and email id.
- **Self assessment chatbot-** after login this chat bot will first ask whether the user is already a covid-19 patient or suspected and further more questions will be asked based on the patient.
- **Health module-**This module will have other sub modules like:
  - 1. Daily Tracking-** The patient will keep updating about their health daily. Their health tracking will be shown in the form of tables and graphs and his/her information will be provided to the doctors,
  - 2. Calendar-** The user will keep track of his quarantine/isolated days and medicines taken(for corona positive if medication given),
  - 3. Booking for Corona test-** If the patient is suspected first he/she will have to ask the doctor for the confirmation that they have to go for the test and then based on the prescription which should be uploaded on the app he/she can book for a Corona test and details will also be provided to the government/ pvt labs.
  - 4. Hospital and Doctor information-** Information of the nearest hospital and doctor available will be provided based on GPS.
- **Alarm notification-** Users will also be notified every day or every week to update their health detail.
- Doctors and hospital will be able to see the information details via the web server.

# Process Flow:

1.

- User interface design and function design for android app and web app will be done.
- Database will be created and data collection will be done.
- Python backend will be used to provide interactivity with database on the server.

2.  
Working  
in  
android  
studio

- Design: All the activities module will be in user friendly module and also will be tested for good user experience.
- Language Preference: Write code so that user can select any language he/she is comfortable in.
- User login module: Write code for login so that users will be able to give all their details.
- Self assessment: Write code for chatbot will be asking questions for self assessment.
- For all the sub modules in health module, code will be written by linking it with self assessment details.

3.

- Upload database on the server.
- App will be tested in different devices and versions.

# Tech Stack

- Backend – **Python**
- Frontend – **Kotlin (Android Studio)** (Kotlin is a cross-platform programming language that may be used as an alternative to Java for Android App Development.)
- Cloud Service Providers – **Azure/AW/Google**
- Database – **MySQL/SQLite**
- **Google Map API**

## So, how is our solution different?

- Alert notification for updating health details daily to the user.
- Users can book the test slot easily.
- Show nearby labs and hospital address and location, with their contact details using GPS and inform the same to the user.
- Calendar is provided so that users can keep track of quarantine/isolated days or medications(if given).

## Future possible enhancements

- We can add video calling feature in our app for doctors and nurses to interact with patients who are admitted in hospital in case the patients only need suggestions from doctors. So, what this feature will do is, as we are taking assessment of the COVID positive patients daily or twice a day, their symptoms graph will also be observed by the doctors and nurses and if they see that any patients symptoms are getting worse or it's getting reduced, the doctor/nurse can just do a video call to that patient and ask him/her that how are they feeling, are they having any difficulties or are they feeling well? So, by sitting at a certain distance they can interact with the patient and get themselves protected. The doctors/nurse need not go to the patient unless and until they feel that the symptoms are worse. This update in the app will help doctors and nurses to stay safe as they have the most risk of getting infected.
- As this app will be using GPS to get the information of hospitals and testing labs, we can make it more accurate in the future.

## Risks/ Challenges

- As this app will be using user information, so cyber security issues can be concern. But we will try that no personal information of any user is there at risk.
- One challenge can be to deal with all the different screen sizes and devices that the app will need to fit.
- Also dealing with different OS can be a challenge.