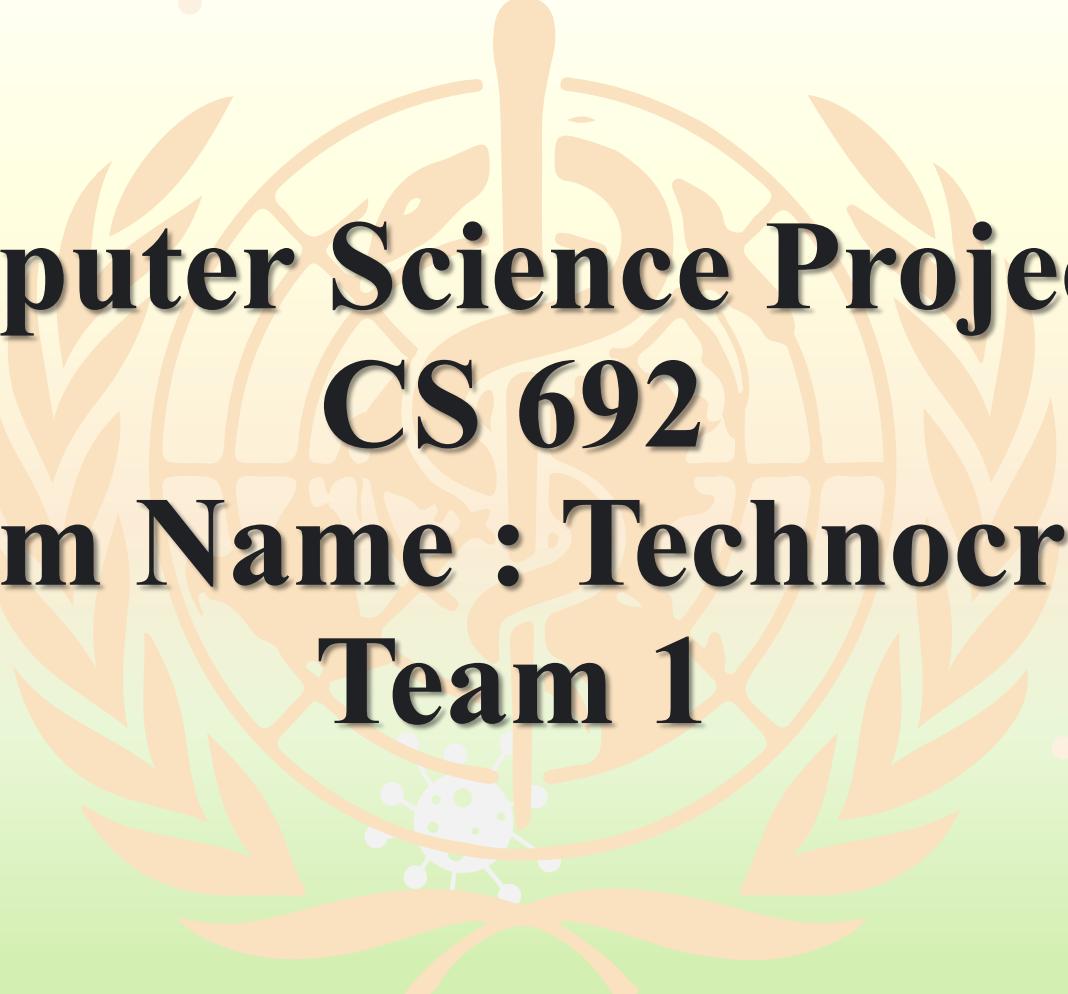


P A C E U N I V E R S I T Y





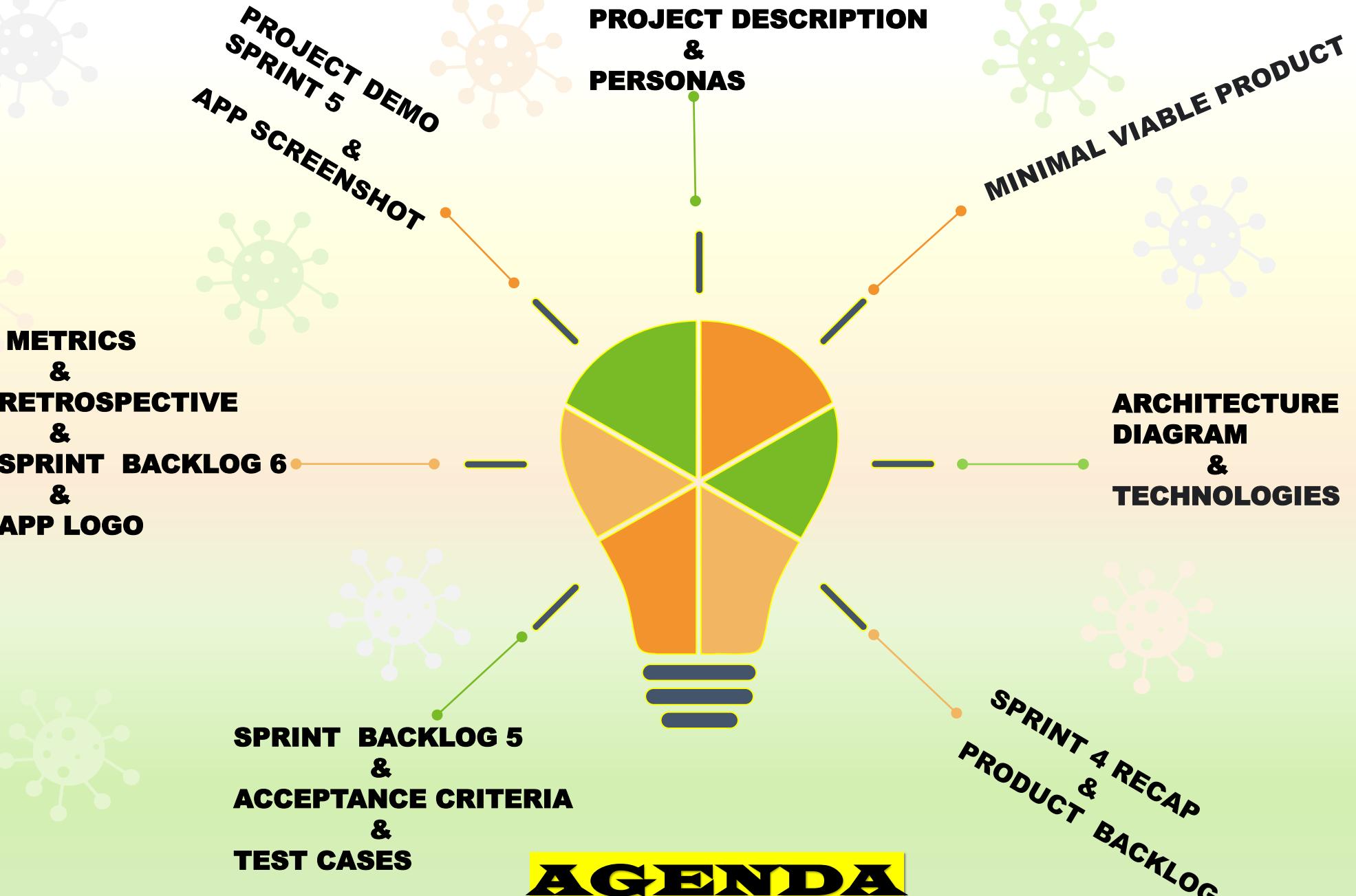
# **Computer Science Project II**

## **CS 692**

**Team Name : Technocrats**

**Team 1**

## PROBLEM STATEMENT & PROJECT DESCRIPTION & PERSONAS



# AGENDA



# Covid-19 Safety Protocol Tracker

# TEAM MEMBER ROLES



**Sai Sindhu**  
**Developer**



**Anil Babu**  
**Developer**



**Anivi Reddy**  
**Developer**

# TEAM MEMBER ROLES



**Sahith**  
**Quality**  
**Analyst/Tester**



**NIKHIL**  
**Scrum master &**  
**QUALITY ANALYST**



**Bharadwaja**  
**Developer**

## IMPROVEMENTS MADE FROM PROFESSOR'S FEEDBACK

- Improvements from Professor's feedback slide can be listed by using bullet points making it more visible to the user.
- As suggested by Professor, MVP of the product should be implemented first rather than Application login and other functionalities.
- Change the MVP slide introductory image. The image does not show MVP.
- Conceptual Architecture Diagram can be improved by showing what technologies at which step they are being used.



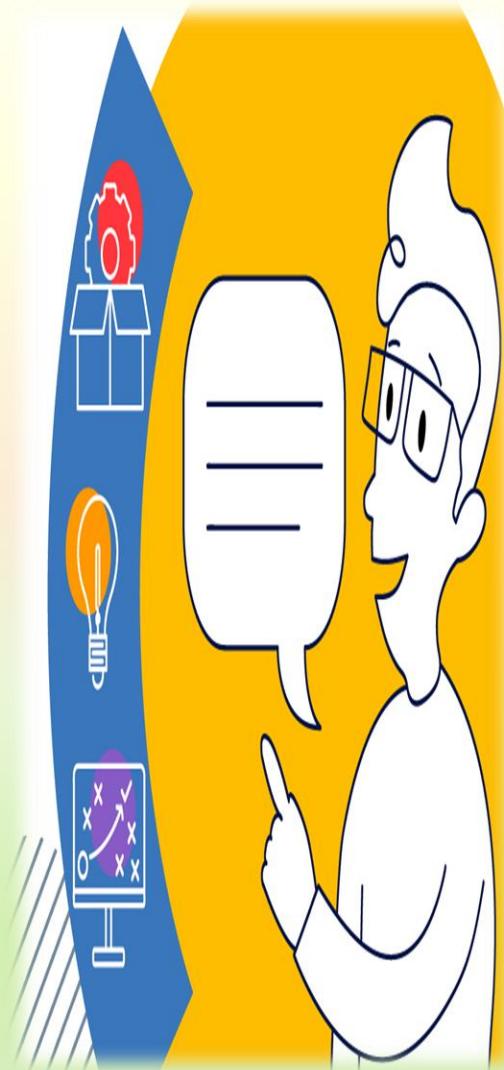
# PROBLEM STATEMENT



Over the last two years, Social Distancing has become increasingly prevalent as a part of the Covid-19 pandemic outbreak. According to international health authorities, interpersonal communication is the principal primary contributor to the pandemic's spread. To avoid the spreading, it is therefore necessary to maintain the necessary spacing with some effort. In addition, developing an automated Contact Detection step that secures privacy would be beneficial to prevent further infection. Today's smartphones are not just for communication; they can also detect numerous characteristics of their environment (movement, proximity, orientation, etc.). In addition, now a days practically everyone utilizes a smartphone. Reflect on these facts The issue is resolved by a mobile app that can notify users when it detects that a person is approaching from a closer distance than is advised.

# PROJECT DESCRIPTION

Our product is focused on COVID-19 safety Protocols. It is designed to ensure that people are adhering to social distancing guidelines. Ultimately, it can help make people and the community safer from the virus . This is a tracking app that uses a smartphone's GPS and Bluetooth features to track COVID-19 case. Bluetooth technology enables users to assess their risk of being exposed to the COVID-19 virus if they have been within six feet of a confirmed case. It is also able to detect specific locations that are deemed 'infected area's through location data analysis, and crowd sourcing. this data so it is easily accessible for decision making purpose. The idea behind the app was to make people aware of their risk, and give them the tools to protect themselves from contracting the virus. We developed a product that would be a cost-effective measure for protecting profits and human life. The idea for our product is based on the idea of a "control" to prevent COVID-19 from spreading. It would be an app that uses Bluetooth and GPS capabilities to track COVID-19 cases and would also provide alerts in case it detects COVID-19 in an area. This product was designed to be inexpensive, effective, providing information necessary for the public's awareness of where the virus is being spread. We designed this app as incentive to prevent someone from spreading the virus as they are able to see how close they are getting near people who have contacted it.



# TEAM WORKING AGREEMENT

## Communication:

We agree to communicate regularly and effectively, keeping each other informed about our progress, questions, and concerns. All the team members agree to have meetings via teams weekly twice.

## Participation:

We agree to actively participate in all team meetings and discussions, and to contribute our unique skills and perspectives to the project.

## Deadlines:

We agree to meet all deadlines set by the team and to inform the team as early as possible if we anticipate any difficulties meeting a deadline.

## Respect:

We agree to always treat each other with respect and professionalism, even in the face of disagreements or challenges.

## Feedback:

We agree to give and receive constructive feedback openly and honestly, with the goal of improving our work and the project.

## Roles and Responsibilities:

We agree to clarify our roles and responsibilities within the team, ensuring that each team member understands their specific tasks and deadlines.

## Confidentiality:

We agree to maintain confidentiality about any sensitive or confidential information related to the project, as agreed upon by the team.

## Quality:

We agree to prioritize quality in our work, and to take the necessary time and effort to ensure that our contributions meet the standards of the team.

## Conflict Resolution:

We agree to resolve any conflicts or disagreements that arise within the team in a timely and respectful manner, seeking input from all team members and striving for a mutually acceptable solution.

## Accountability:

We agree to hold ourselves and each other accountable for our actions and contributions to the project, and to take responsibility for any mistakes or errors we make.

## Team Members:

**Sai Sindhu Jammula**

**Anil Babu Tota**

**Anivi Reddy Yarabolu**

**Bharadwaja Vemulapally**

**Nikhil Reddy Thamma**

**Sahith Chowdary**

# PERSONAS



# PERSONA 1



## Profile

Name: *Christiana*

Age: 24

Location: New York, NY

Job: Student

Family: Lives with her boyfriend

## About

Christiana is a student who is pursuing her masters in a public university.

## Goals

In the process of going to the college she will travel a lot and meet lot of random people who might got affected by covid virus.so ,she want to be careful for which she need to protect herself form covid and covid patients she use our app which was built for covid detection of covid effected persons nearby distances of 6ft with the help of location and Bluetooth tools .she gets notification that she was in danger zone that someone near to her is effected by covid in 6ft distance.so that she can take precautions. Like maintain proper social distances.

# PERSONA 2



## Profile

*Name: Maddy*

*Age: 35*

*Location: New Jersey, NJ*

*Job: Senior nurse*

*Salary: \$74000/year*

*Family: Husband*

## About

Maddy is a senior nurse she will makes regular bp and temperature of the patients.

## Goals

Maddy, a nurse in a public hospital, is often overwhelmed with multiple patients. It would be immensely useful if she had a mobile application that could detect who is within 6ft of her location. This would make her job much easier and safer. Both scenarios will require Maddy to do a set of certain tasks for the app to perform its intended action. For the scenario, she must create an account, install and activate her mobile application, use the app at work for it to detect where she is within 6ft of her current location. Maddy must store her account information, so the app can detect where she is within 6ft of her current location.

# PERSONA 3



## Profile

Name: Sourabh

Age: 44

Location: Alabama, Ga

Job: Chief Security Officer

Salary: \$112000/year

Family: Two children and wife

## About

Sourabh was a chief security officer at a shopping complex who checks every customer at the mall's entrances.

## Goals

Sourabh's goal is to check each and every single customer whether they are healthy or have been affected by the covid. Through our app, he gets a notification when any persons affected by COVID are near to him in 6 ft distances. Then he stops them and takes measures to get them the prescribed quarantine so that the other people in the mall are not affected. The Armor app also helps Sourabh to be cautious whenever there are any people affected by COVID-19 and keeps him updated on COVID-19 news.

# MINIMAL VIABLE PRODUCT (MVP)



Minimum viable product

# MINIMAL VIABLE PRODUCT (MVP)

The following are the features we are covering in our MVP:

- Onboarding screens
- Registration Page
- Login Page
- Home Page
- Scanning functionality in Bluetooth page
- QR code functionality in Friends list page
- Alerts Page

# MINIMAL VIABLE PRODUCT (MVP)

## Onboarding Screens :

Onboarding screen has introduction message to the app and provides basic information about the application. From onboarding screens, user has a button to login/register.

## Registration Page :

User should be able to enter their details in the provided fields and click on the register button.

## Login Page :

User should be able to enter their credentials and click on the login button.

## Home Page :

From the home page user should be able to navigate through all the features of the application. For example Friends tab, Bluetooth tab, Notifications Tab, Settings Tab.

# MINIMAL VIABLE PRODUCT (MVP)

## Friends Tab :

QR code is displayed for the application and This QR code can be scanned by another registered application user add the current user to their friends list.

## Bluetooth Tab :

Scan button is available in the blue tooth tab which will enable to device Bluetooth and scan for devices in the Bluetooth area.

## Notification Tab :

User should be able to see Alerts or Notifications in this Tab.

## Settings Tab :

User has option to edit their profile and send feed back about the application to admin team through this tab.

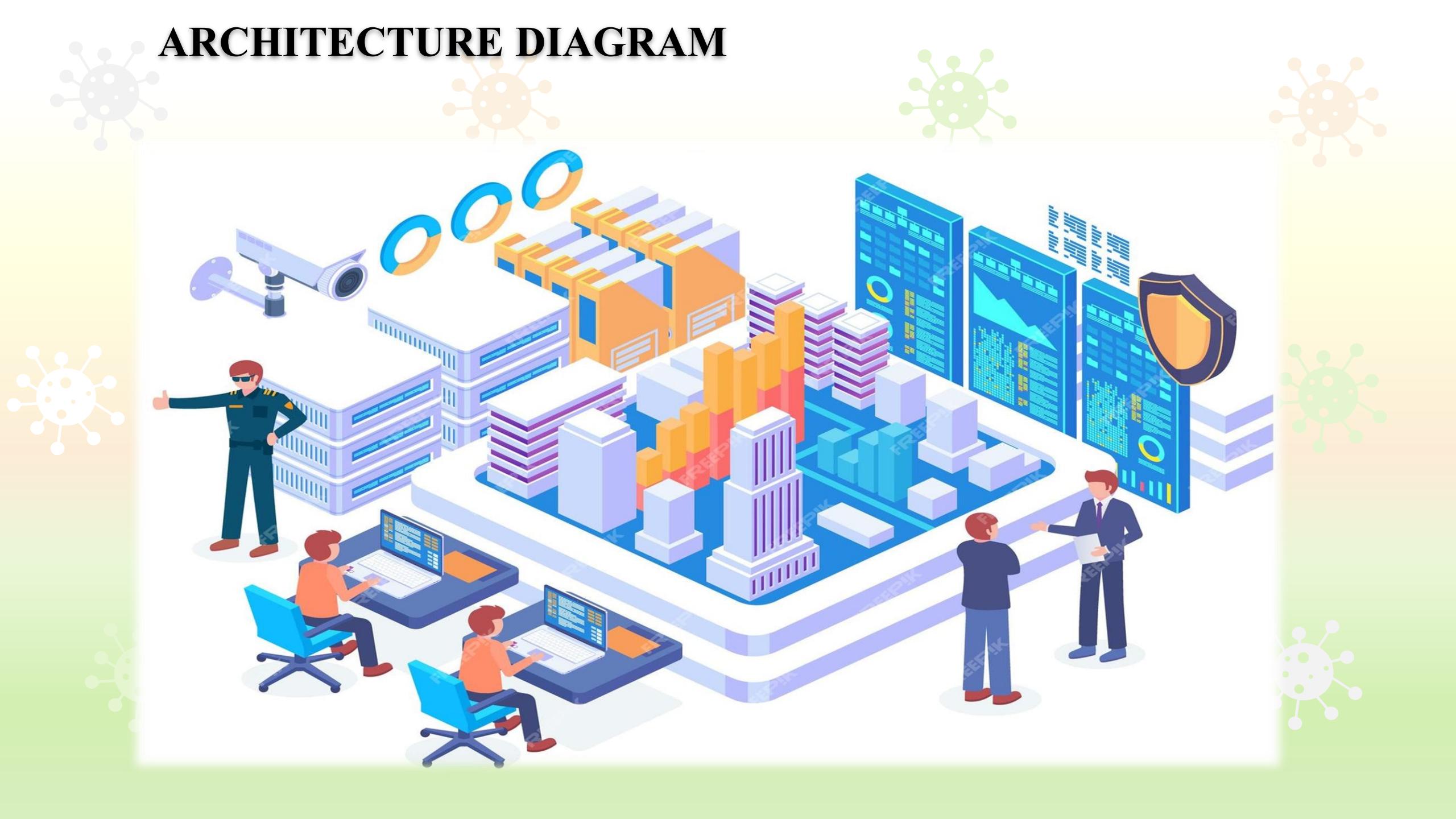
# TECHNOLOGIES



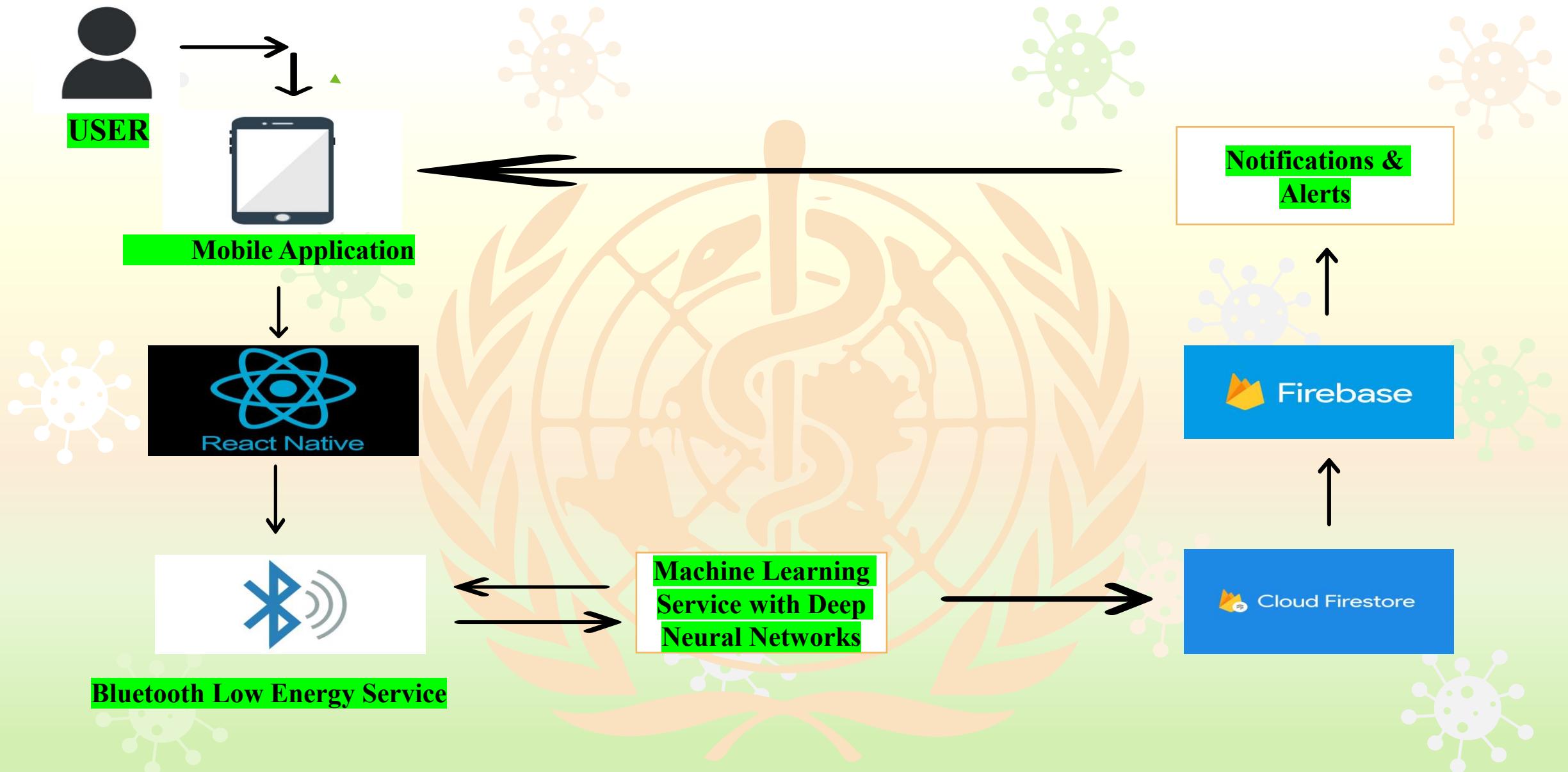
TensorFlow



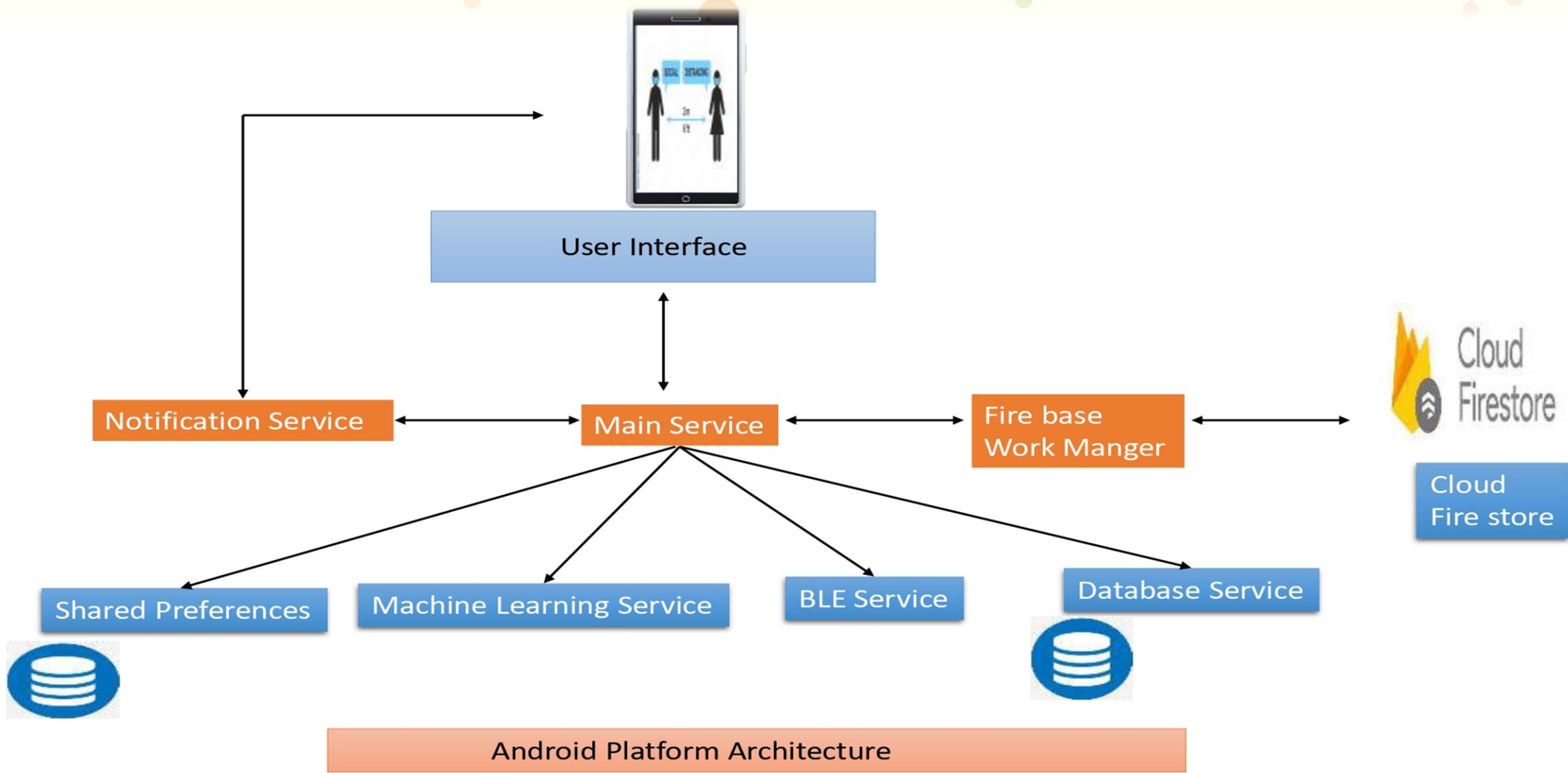
# ARCHITECTURE DIAGRAM



# CONCEPTUAL ARCHITECTURE DIAGRAM



# SEQUENCE ARCHITECTURE DIAGRAM



## SPRINT 4 BACKLOG



ID	Summary	Status
Cov-21	As a registered user I want to see the option for changing the user's name in settings page so that I can change the user's name.	Done
Cov-22	As a registered user I should be able to add my friends through QR code	Done
Cov-23	As a registered user I want to have a functionality to send feedback about the application so that application management will get feedback from users.	Done

# PRODUCT BACKLOG



# PRODUCT BACKLOG

ID	Summary	Status
Cov-1	To gather all the requirements for the project.	Done
Cov-2	As a team we should have team work agreement with all rules and regulations.	Done
Cov-3	As a team we should divide roles and responsibilities among ourselves to develop the project.	Done
Cov-4	As a team we should develop required technical and functional knowledge required to complete the project.	Done
Cov-5	As a team we should plan the product requirements and development plan for the project.	Done
Cov-6	As a user I should have a Apk file which can be installed in mobile with basic functionalities.	Done
Cov-7	As a user I should be able to see the welcome page for Application.	Done
Cov-8	As a user I should be able to see the Knowledge page after welcome page , which has information of how application works.	Done
Cov-9	As a user I should be able to give all the required permissions to application to access the required data in mobile.	Done
Cov-10	As a user I should be able to reset the permissions for application anytime.	Done

# PRODUCT BACKLOG

ID	Summary	Status
Cov-11	As a user I should be able to see the Registration page for the application.	Done
Cov-12	As a user I should be able to the user name and get registered in the application.	Done
Cov-13	As a user I should be able to get pop up notification to turn on Bluetooth if application is being used.	Done
Cov-14	As a user I should be able to get pop up notification, asking required permissions for the application	Done
Cov-15	As a registered user I should be able to see the home page, once I login in to the application.	Done
Cov-16	As a registered user I want to logout from the application so that I can log in again whenever I want.	Done
Cov-17	As a user, I want to create my account to the application so that I can Keep my account private and Signup Using Name, Email and Password.	Done
Cov-18	As a user, I want to login using my email id as my user id so that I can access my account	Done
Cov-19	As a user, I want to navigate between pages so that I can quickly access the features I need	Done
Cov-20	As a user, I want to access the feature in home page	Done

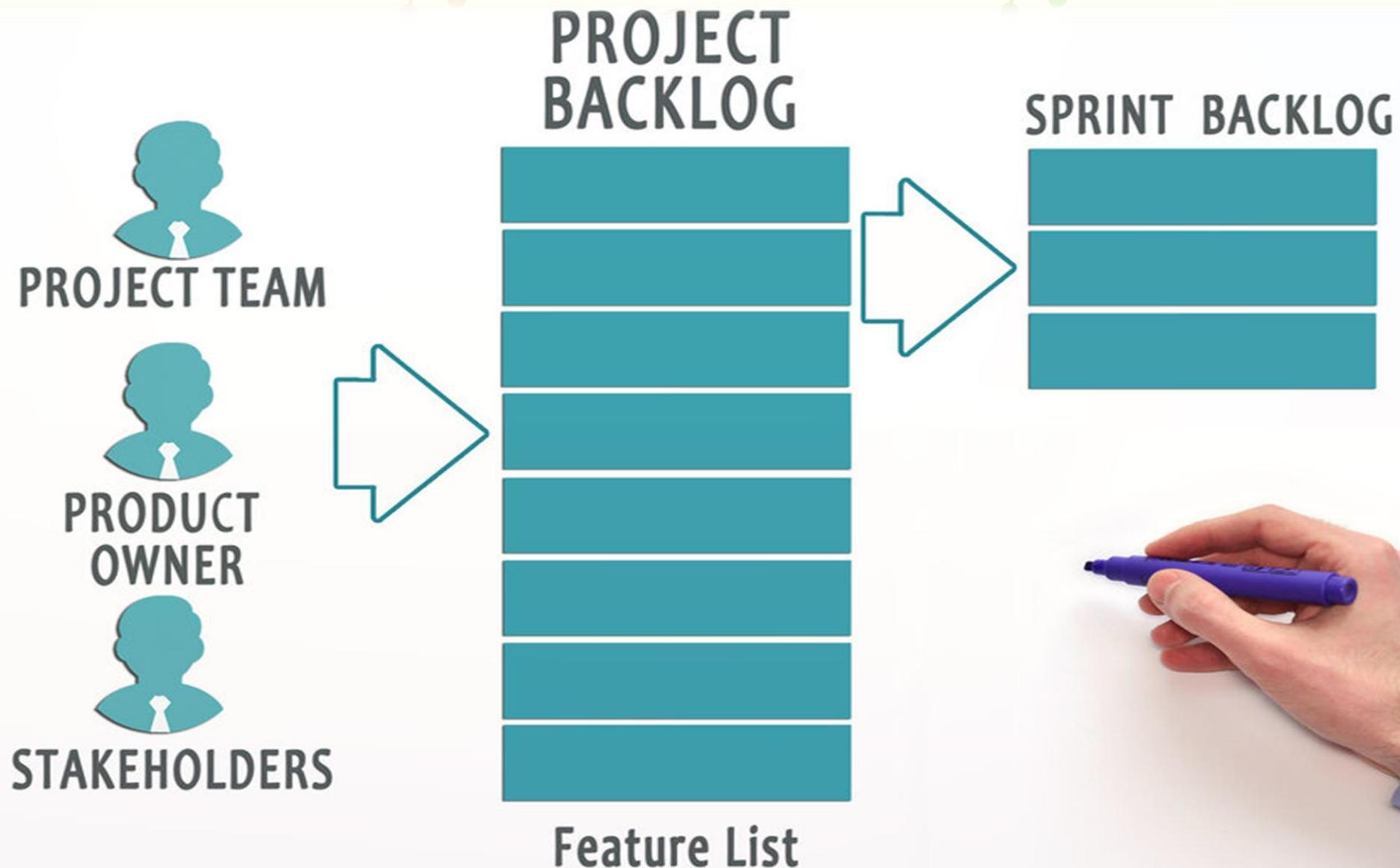
# PRODUCT BACKLOG

ID	Summary	Status
Cov-21	As a registered user I want to see the option for changing the user's name in settings page so that I can change the user's name.	Done
Cov-22	As a registered user I should be able to add my friends through QR code.	Done
Cov-23	As a registered user I want to have a functionality to send feedback about the application so that application management will get feedback from users.	Done
Cov-24	As a registered user I want to see the play button in the Bluetooth screen page so that I can start searching for infected users near my location.	Done
Cov-25	As a registered user I want to see the pause button in the Bluetooth screen page so that I can stop searching for infected users in the application.	Done
Cov-26	As a registered user I want to see the option for marking as covid 19 infected person in settings page so that I can update my status whenever I diagnosed with covid.	To be Done
Cov-27	As a registered user I should be able to send my application QR code to my friend to add in the friend list.	To be Done
Cov-28	As a registered user I want to see the option for deleting my account in settings page so that I can delete my account.	To be Done
Cov-29	As a registered user I should be able to white list my trusted friends.	To be Done
Cov-30	As a registered user I should be able to remove the friends from white list.	To be Done

# PRODUCT BACKLOG

ID	Summary	Status
Cov-36	As a registered user I want to have a option to integrate app with Gmail so that I can use the Gmail to login to the application.	Done
Cov-37	As a registered user I want to have a functionality to enable alerts so that I can turn it on whenever needed.	Done
Cov-38	As a registered user I want to have a functionality to make device not visible to other devices so that I can hide the device from scanning by other devices.	Done

## SPRINT BACKLOG



## SPRINT 5 BACKLOG

ID	Summary	Status
Cov-24	As a registered user I want to see the play button in the Bluetooth screen page so that I can start searching for infected users near my location.	Done
Cov-25	As a registered user I want to see the pause button in the Bluetooth screen page so that I can stop searching for infected users in the application.	Done
Cov-36	As a registered user I want to have a option to integrate app with Gmail so that I can use the Gmail to login to the application.	Done
Cov-37	As a registered user I want to have a functionality to enable alerts so that I can turn it on whenever needed.	Done
Cov-38	As a registered user I want to have a functionality to make device not visible to other devices so that I can hide the device from scanning by other devices.	Done

# ACCEPTANCE CRITERIA TABLE

ID	Scenario	Summary	Place
Cov-24	As a registered user I want to see the play button in the Bluetooth screen page so that I can start searching for infected users near my location.	Given am the user of the application.  I want to see the Bluetooth play button so that I can start searching for the infected users near my location.	Bluetooth screen page
Cov-25	As a registered user I want to see the pause button in the Bluetooth screen page so that I can stop searching for infected users in the application.	Given am the user of the application.  I want to see the Bluetooth pause button so that I can stop scanning for infected users.	Bluetooth screen page
Cov-36	As a new user I want to have a option to integrate app with Gmail so that I can use the Gmail to login to the application.	As a new user open the application and click on login with Gmail option.  It will redirect to Gmail login page.  After entering valid mail id and password it will redirect to the application home page.  Now you are successfully logged in with your Gmail.	Application login page

## ACCEPTANCE CRITERIA TABLE



ID	Scenario	Summary	Place
Cov-37	As a registered user I want to have a functionality to enable alerts so that I can turn it on whenever needed.	<p>Given am the user of the application.</p> <p>I want to see the option for enabling alerts so that I can turn it on or off whenever needed.</p>	Settings page
Cov-38	As a registered user I want to have a functionality to make device not visible to other devices so that I can hide the device from scanning by other devices.	<p>Given am the user of the application.</p> <p>I want to see the option for managing device visibility.</p> <p>I should be able to switch it on or off whenever I need it.</p> <p>I can turn it on to stop other devices to scan my device when they start scanning near my location.</p>	Settings page

# TEST CASES

ID	Unit of Test	Scenario	Test Data	Steps to be expected	Expected Result
Cov-24	Bluetooth screen page	As a registered user I want to see the play button in the Bluetooth screen page so that I can start searching for infected users near my location.	Login as a registered user.  Navigate to Bluetooth screen page.  Tap the Bluetooth play button to start searching for infected users.	Login>Home page>Bluetooth screen page	App starts searching for the infected users near my location.
Cov-25	Bluetooth screen page	As a registered user I want to see the pause button in the Bluetooth screen page so that I can stop searching for infected users in the application.	Login as a registered user.  Navigate to Bluetooth screen page.  Tap on the Bluetooth pause button to stop searching for the infected users.	Login>Home page>Bluetooth screen page	App stops searching for the infected users in the application.
Cov-36	Login page	As a registered user I want to have a option to integrate app with Gmail so that I can use the Gmail to login to the application.	When I open the applications login page I should see a option for login with Gmail.  After clicking that option I should be redirected to Gmail login page.  After entering valid mail id and password I should be redirected to the application and my mail should be linked with the application.	Login with Gmail>Gmail login page>Application home page	Application will be successfully logged in with the Gmail.

# TEST CASES

ID	Unit of Test	Scenario	Test Data	Steps to be expected	Expected Result
Covid -37	Settings Page	As a registered user I want to have a functionality to enable alerts so that I can turn it on whenever needed.	Login as a registered user. Navigate to settings page. Click on the option “Enable Alerts”. Turn on the alerts and save the changes.	Login>settings page	Your Alerts will be turned on.
Covid -38	Settings page	As a registered user I want to have a functionality to make my device not visible to other devices so that I can hide the device from scanning by other devices.	Login as a registered user. Navigate to device settings and click on the option “Manage device visibility”. Switch off the visibility option and save the changes.	Login>Settings page>device settings	Users device will not be visible to other devices.

## Stories Completed in Sprint 5

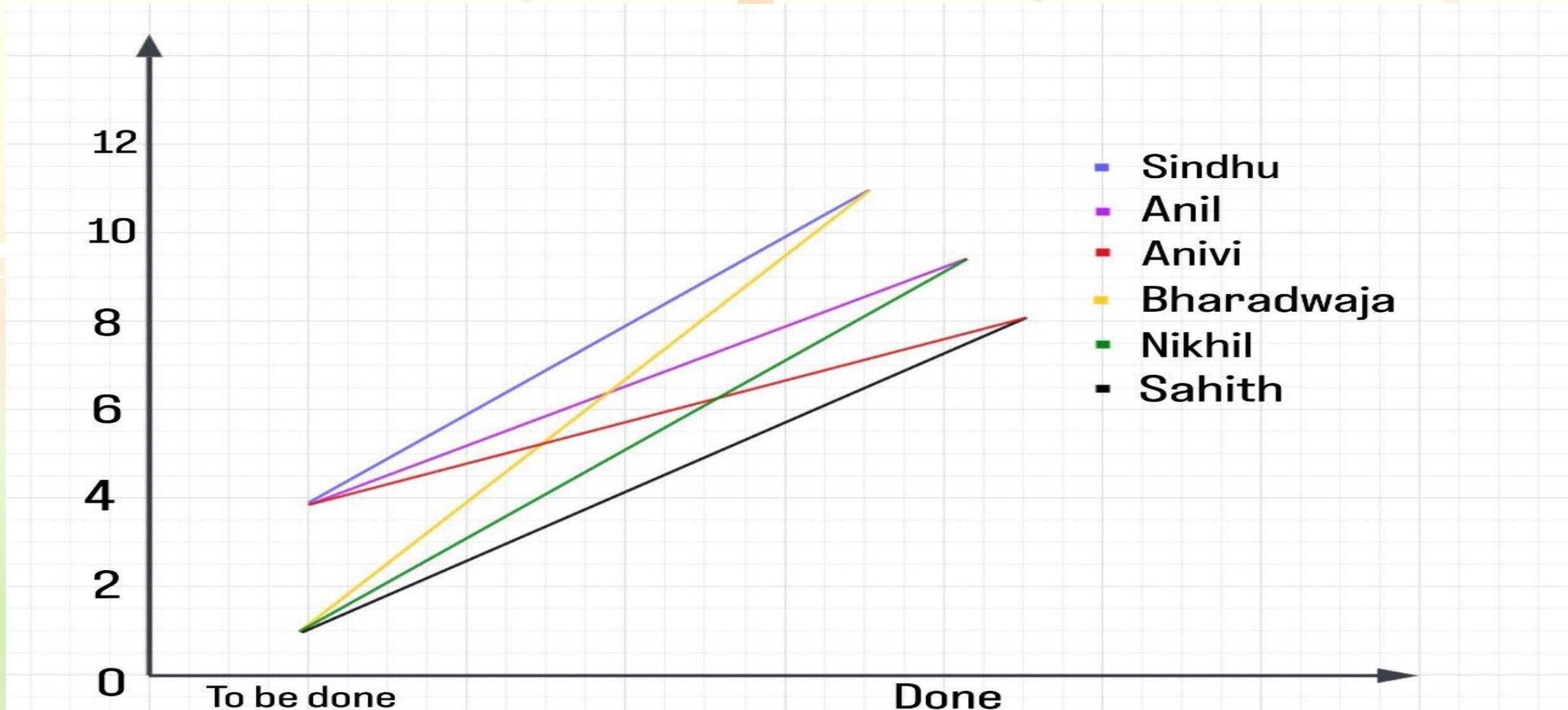
ID	Summary	Status
Cov-24	As a registered user I want to see the play button in the Bluetooth screen page so that I can start searching for infected users near my location.	Done
Cov-25	As a registered user I want to see the pause button in the Bluetooth screen page so that I can stop searching for infected users in the application.	Done
Cov-36	As a registered user I want to have a option to integrate app with Gmail so that I can use the Gmail to login to the application.	Done
Cov-37	As a registered user I want to have a functionality to enable alerts so that I can turn it on whenever needed.	Done
Cov-38	As a registered user I want to have a functionality to make device not visible to other devices so that I can hide the device from scanning by other devices.	Done

# METRICS



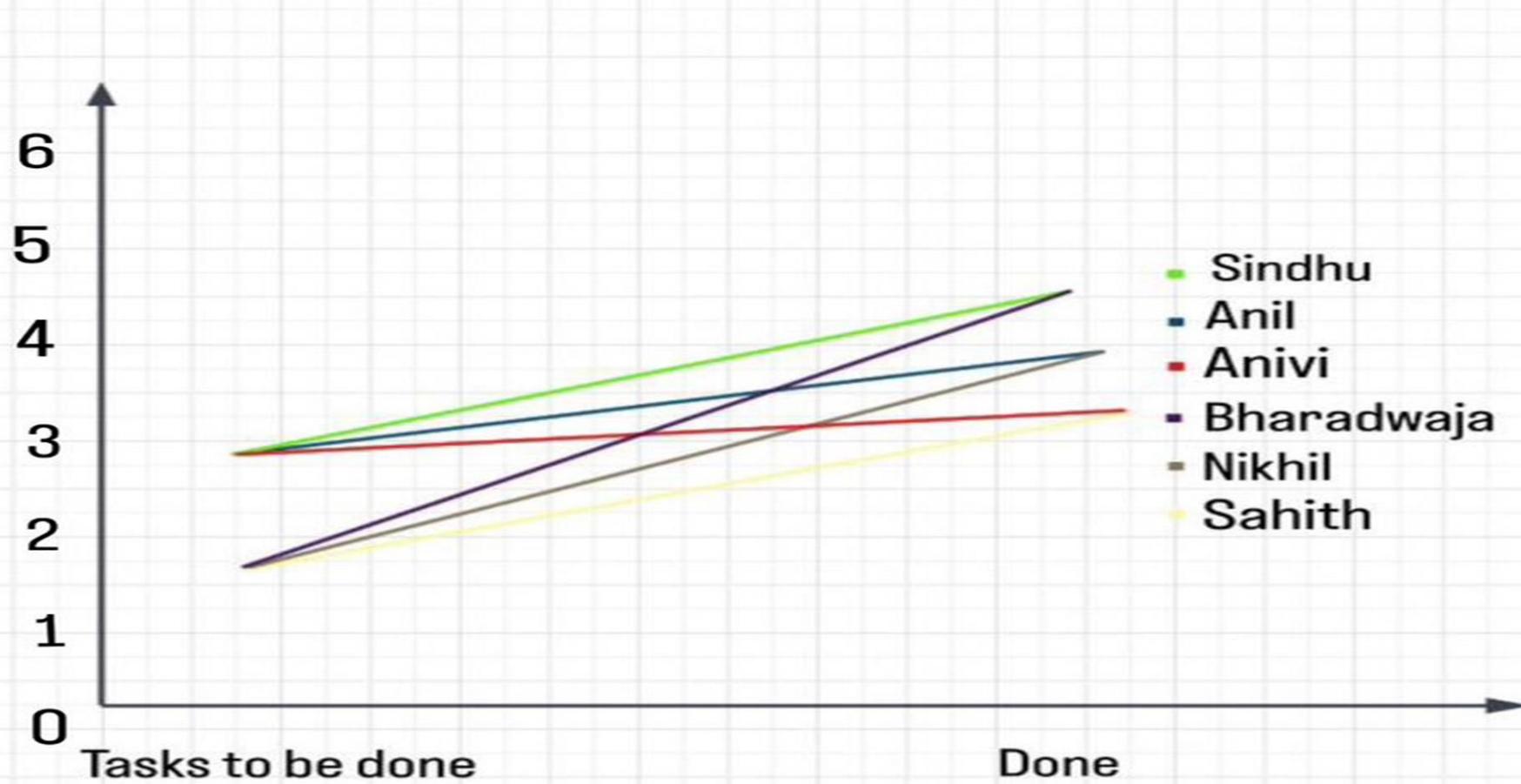
# METRICS

## TEAM MEMBERS VELOCITY REPORT



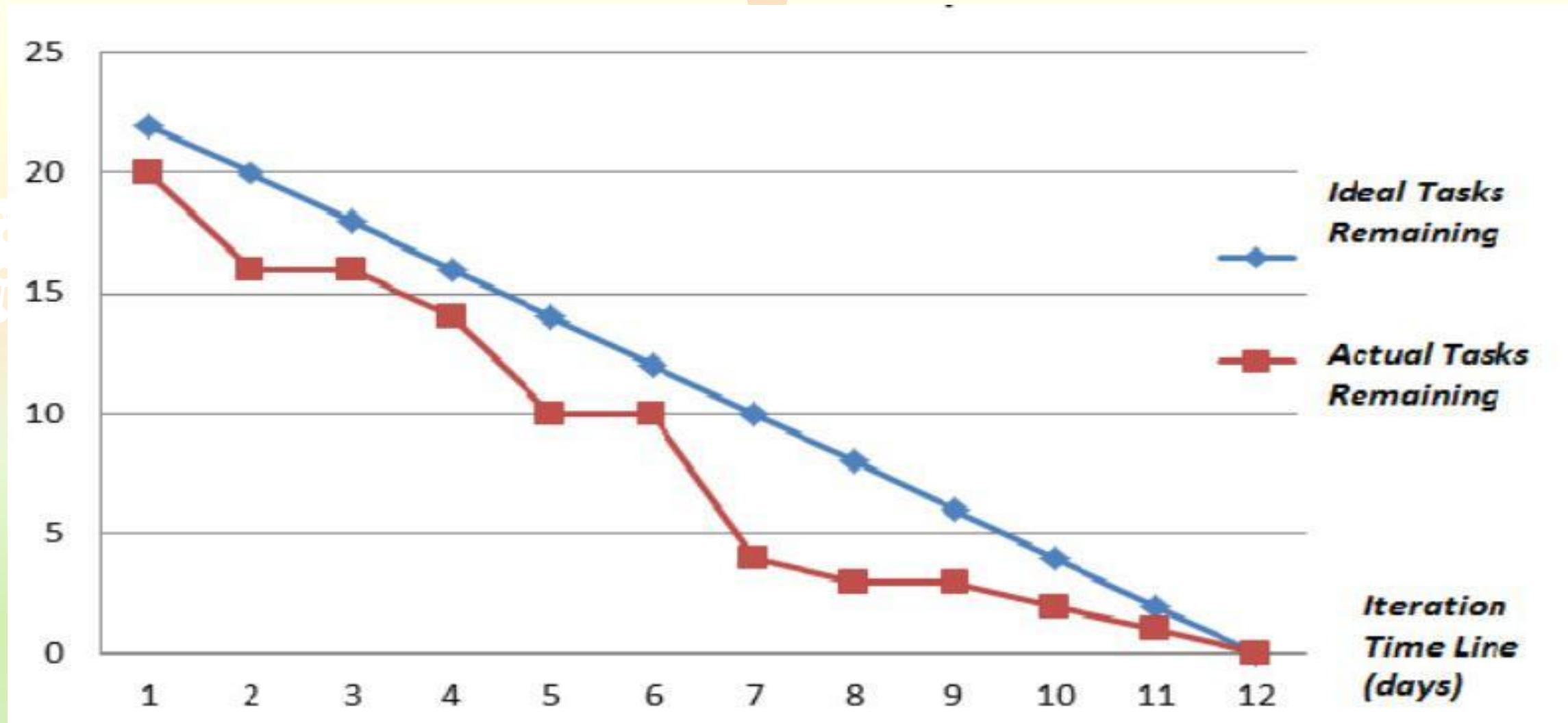
# METRICS

## TEAM MEMBERS AVERAGE VELOCITY REPORT



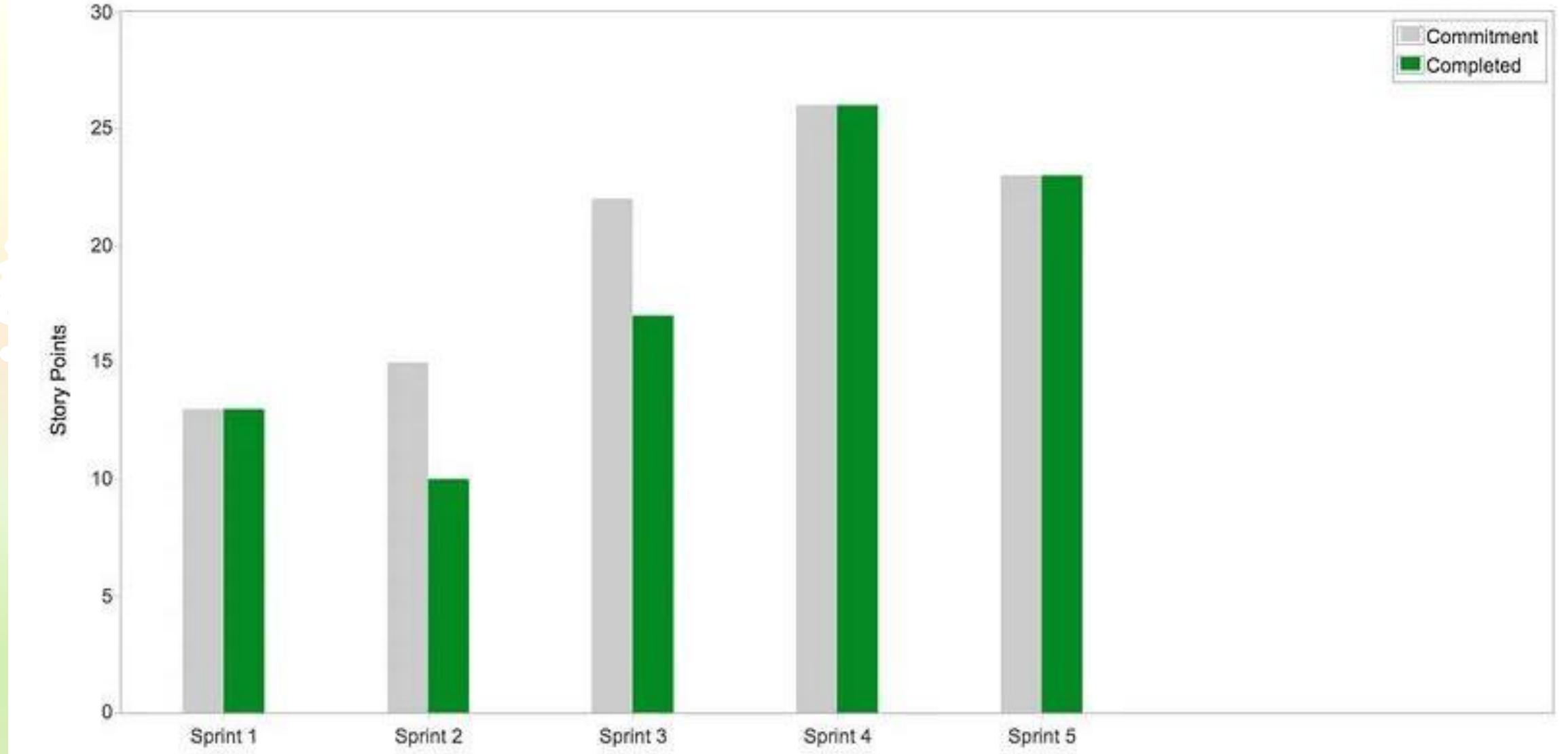
# METRICS

## SPRINT BURNDOWN CHART



# METRICS

## Completed vs Committed ratio



# RETROSPECTIVE

What went well?

we have planned and distributed the task early, so that every team member has clarity about their tasks and goals for the sprint.

What needs improvement?

Team members co-ordination can be improved to sync their schedule with the team meetings and team members must give update about their task on time so that if anything is pending other team members can jump in to help.

Next steps:

We are going to have more team meetings for regular updates from team members, so that if any team member has unfinished work that can be among other team members early and work can be completed on time.

# Stories planned and committed for Sprint 6

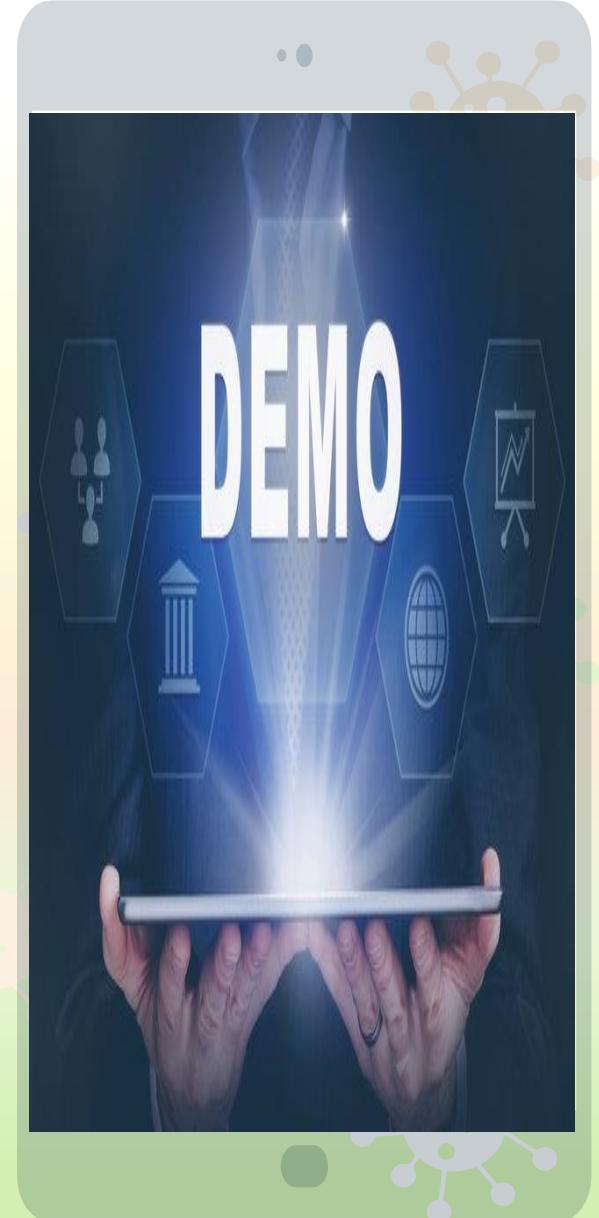


ID	Summary	Status
Cov-26	As a registered user I want to see the option for marking as covid 19 infected person in settings page so that I can update my status whenever I diagnosed with covid.	To be Done
Cov-27	As a registered user I should be able to send my application QR code to my friend to add in the friend list.	To be Done
Cov-28	As a registered user I want to see the option for deleting my account in settings page so that I can delete my account.	To be Done
Cov-29	As a registered user I should be able to white list my trusted friends.	To be Done
Cov-30	As a registered user I should be able to remove the friends from white list.	To be Done

# App Logo



# **PROJECT DEMO SPRINT 5**



# PROJECT DEMO SPRINT 5

The image shows a development environment for a React Native application named "Covsp\_new". The left side of the screen displays the VS Code interface with the file "App.js" open. The code imports various components and hooks from React and Recoil, and defines an App component that logs "app", uses an effect to request user permission, and a notification listener. A red error message in the terminal indicates that ViewPropTypes will be removed from React Native, suggesting migration to TypeScript or the deprecated-react-native-prop-types package.

```
import { View, Text } from 'react-native'
import React,{useEffect} from 'react'
import Navigation from './src/navigation/index'
import {RecoilRoot} from 'recoil';
import { MenuProvider } from 'react-native-popup-menu';
import {requestUserPermission, notificationListener} from 'react-native-permissions';

const App = () => {
  // console.log("app")

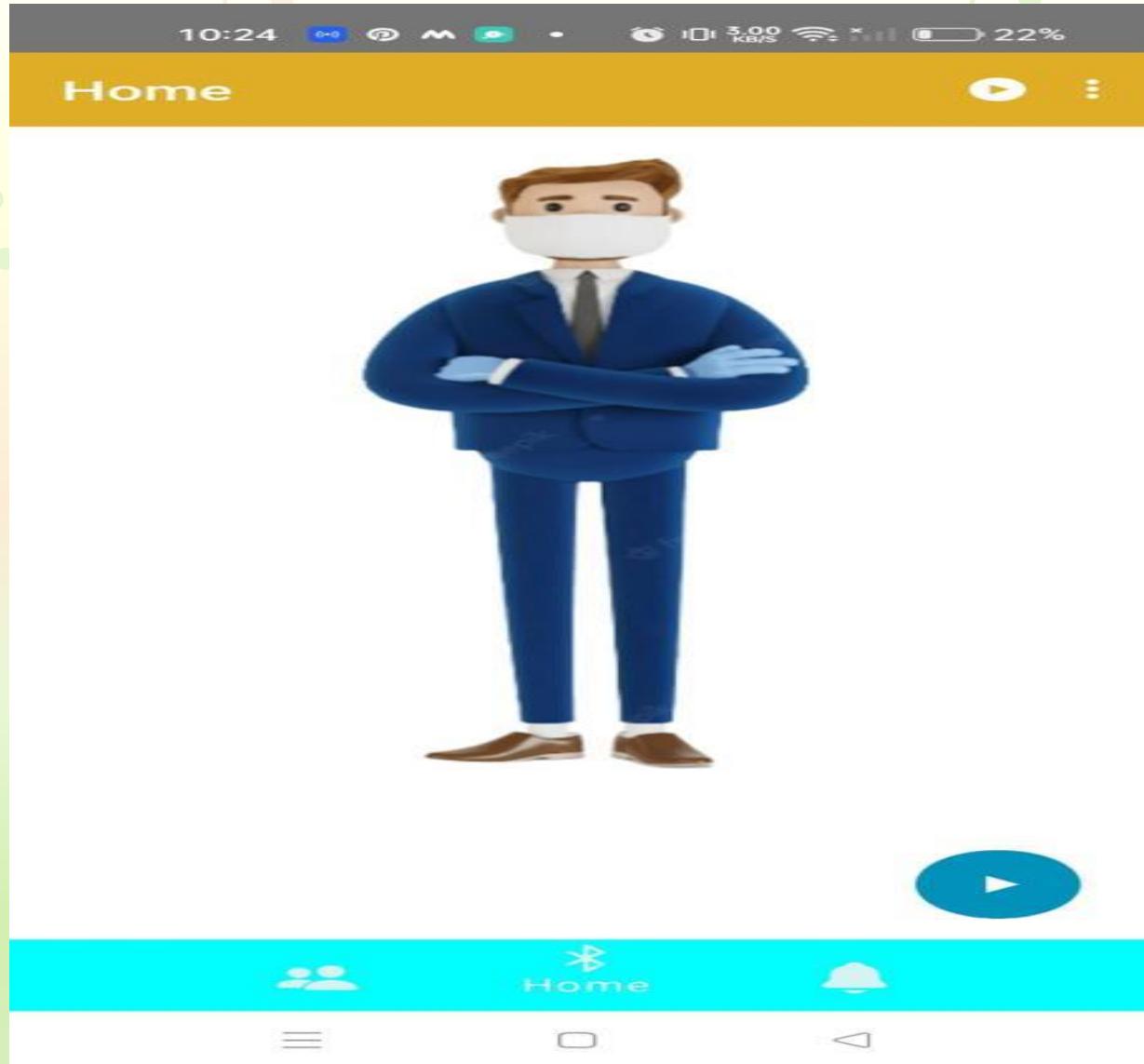
  useEffect(() => {
    requestUserPermission()
    notificationListener()
  }, [])
}

export default App
```

The right side of the image shows a smartphone displaying the "Welcome to Armor App" screen. The screen features a green background with four stylized characters holding balloons and a "welcome!" banner. Below the banner, the text "Welcome to Armor App" is displayed, followed by a descriptive paragraph about the app's purpose: "Armor App helps in Identifying potential risk of getting infected by covid and stops spread of covid by turning Bluetooth on in the mobile device. Armor app sends notifications to the user about infected persons in 6 feet distance." At the bottom of the screen are "Skip" and "Next" buttons.

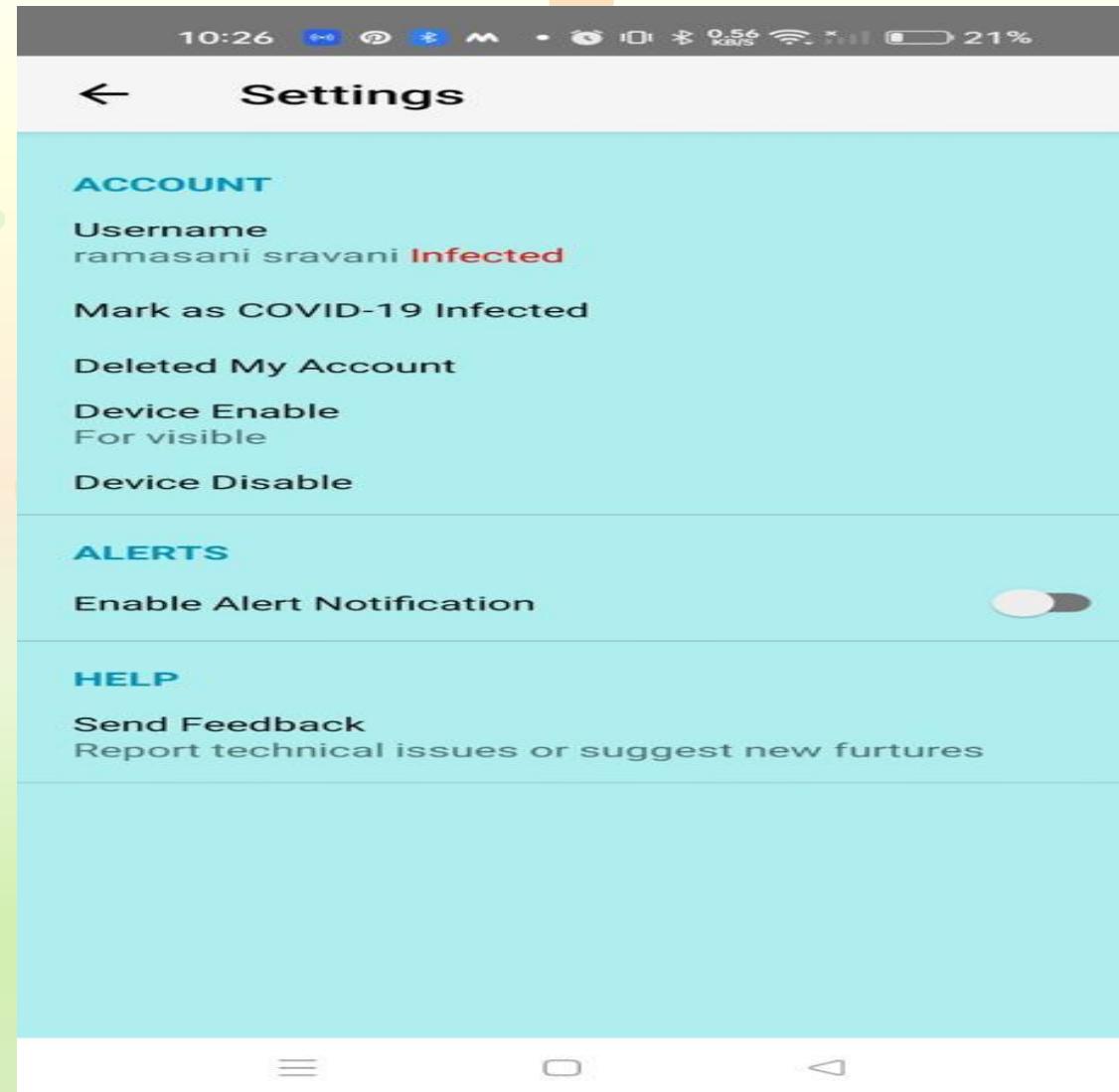
# PROJECT DEMO SPRINT 5

## Home Page After Login



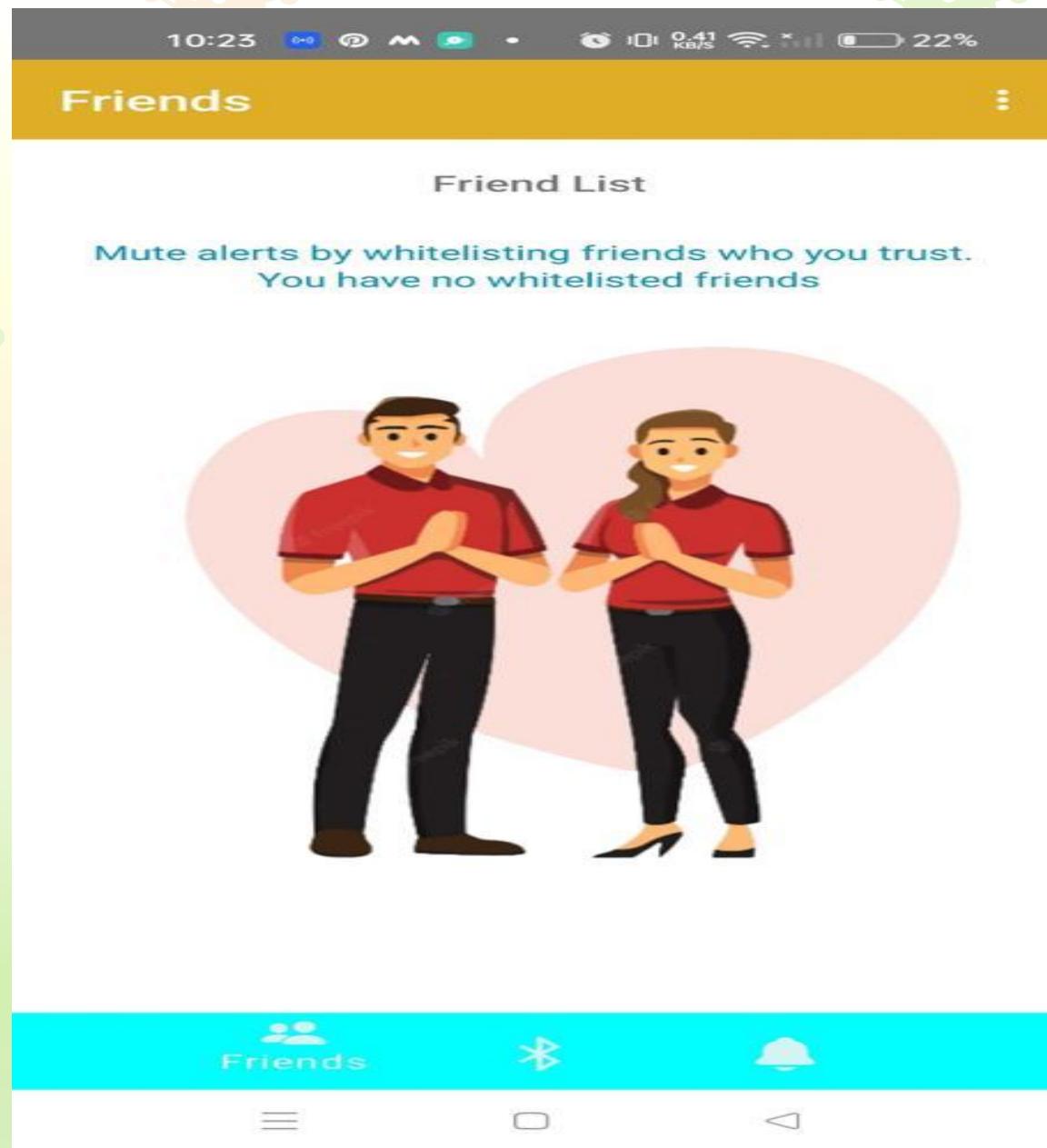
# PROJECT DEMO SPRINT 5

## Settings



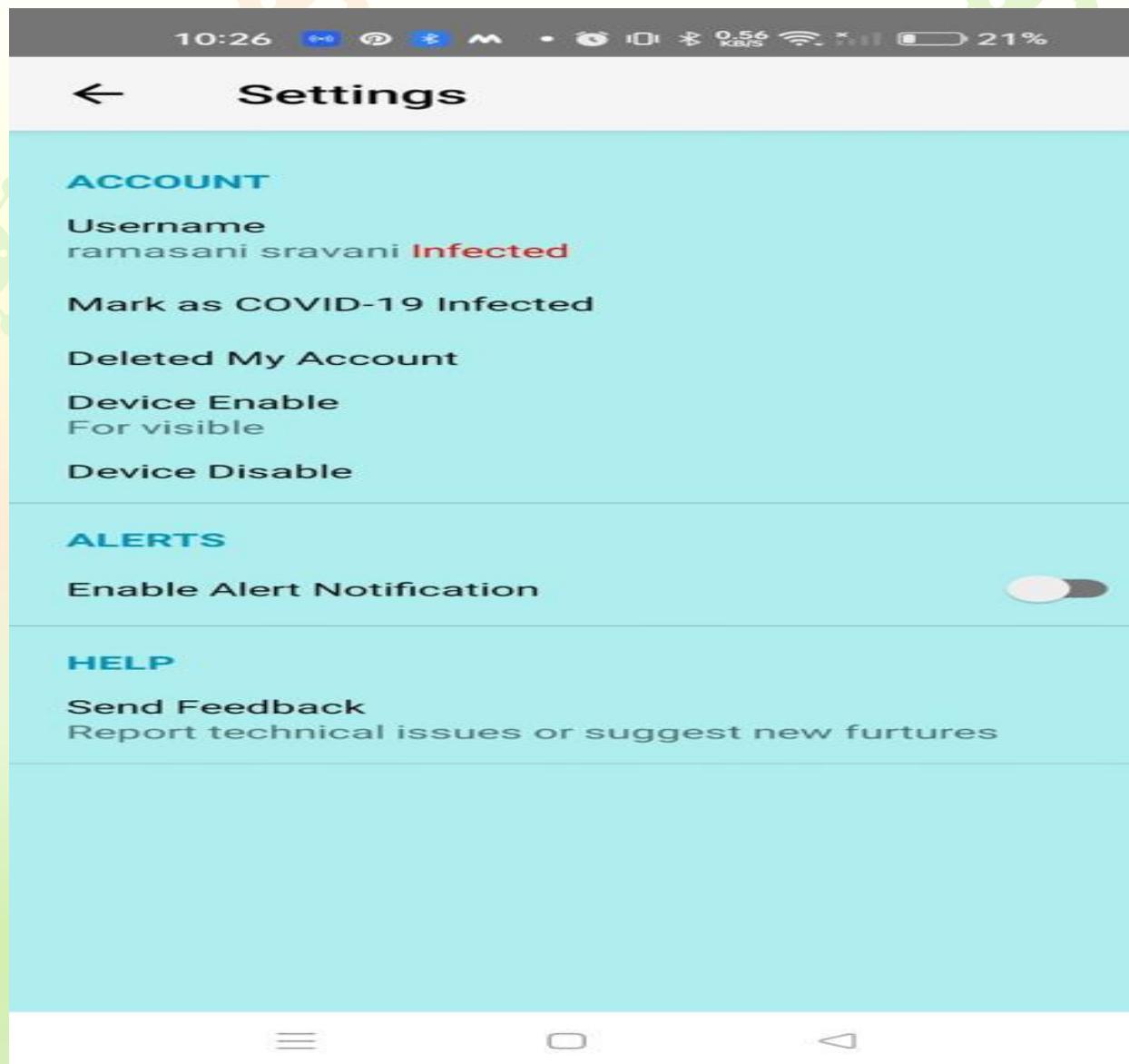
# PROJECT DEMO SPRINT 5

## Friends List



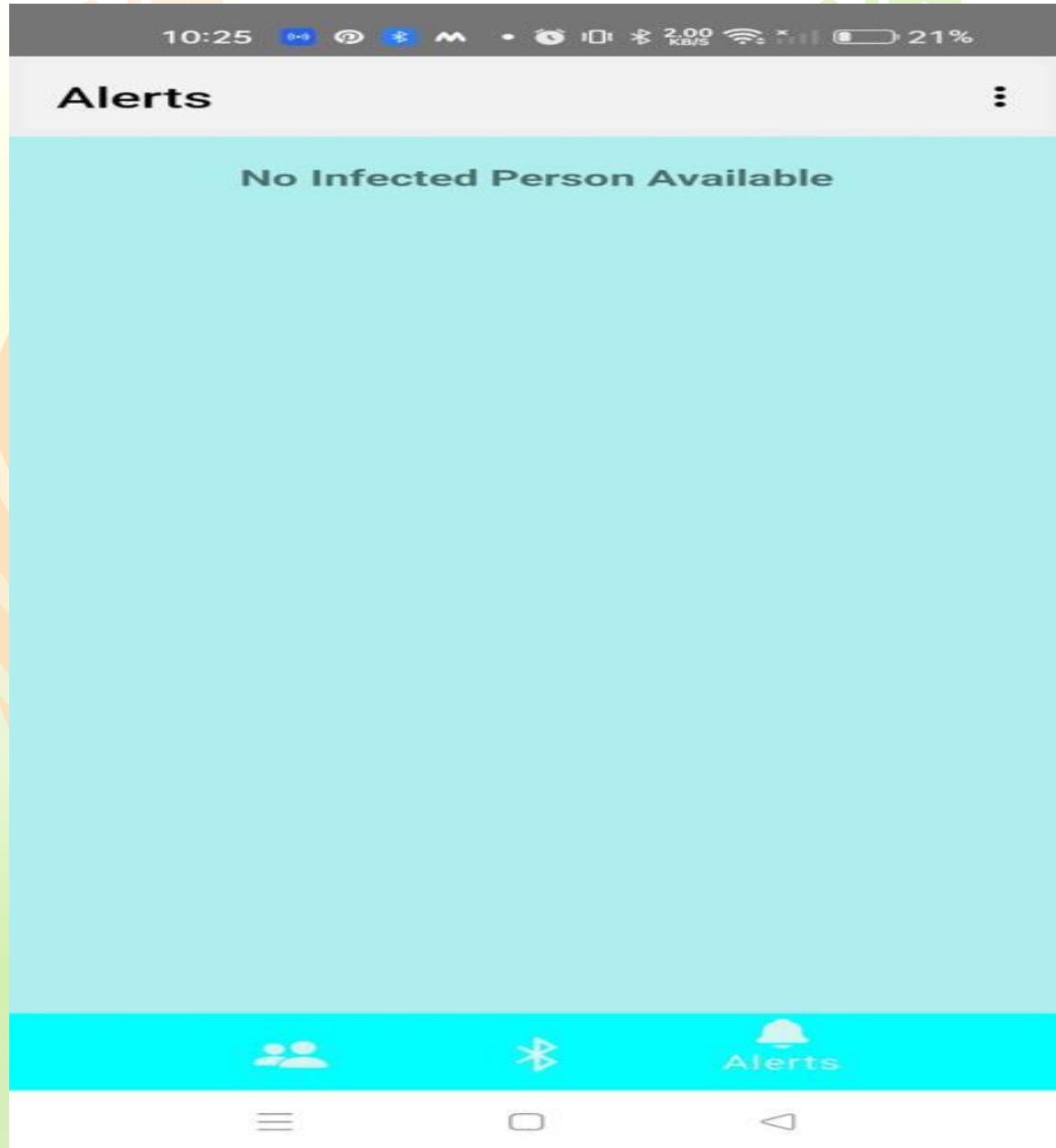
# PROJECT DEMO SPRINT 5

## Edit Profile



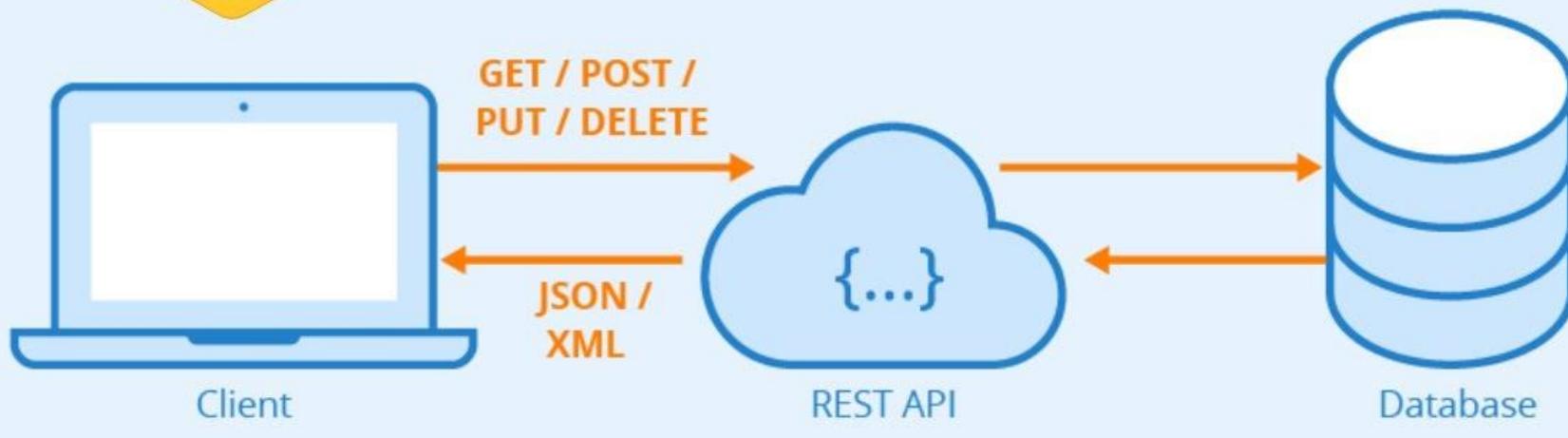
# PROJECT DEMO SPRINT 5

## Alerts Tab





# Firebase



# GITHUB LINK



<https://github.com/htmw/2023S-Team1>

# PROJECT DEMO SPRINT 4

Live Application Demo:

The image shows a dual-screen setup. On the left screen, a Microsoft Visual Studio Code (VS Code) interface is displayed. The Explorer sidebar shows a project structure for 'COVSP\_NEW' with folders like '.bundle', 'android', 'gradle', 'ios', 'node\_modules', 'src', and various configuration files. The 'App.js' file is open in the main editor area, containing React Native code. A red error message at the bottom of the code editor states: "ERROR ViewPropTypes will be removed from React Native, along with all other PropTypes. We recommend that you migrate away from PropTypes and switch to a type system like TypeScript. If you need to continue using ViewPropTypes, migrate to the 'deprecated-react-native-prop-types' package." Below the code, the terminal window shows log output related to the 'covsp' command. On the right screen, a smartphone displays a mobile application titled 'Welcome to Armor App'. The app's landing screen features a green background with four stylized human figures holding balloons and a 'welcome!' banner. Below the banner, the text reads: "Armor App helps in Identifying potential risk of getting infected by covid and stops spread of covid by turning Bluetooth on in the mobile device. Armor app sends notifications to the user about infected persons in 6 feet distance." Navigation buttons for 'Skip' and 'Next' are visible at the bottom of the phone screen.



Thank You!

alt