

COVID Suraksha v1.2.1

COVID Suraksha is a suite comprising an Android mobile application and a web-based application portal, developed by NIC Assam, for ensuring that Home Quarantine cases are being properly monitored by the assigned surveillance teams of health workers and also to ensure the Citizen with 14 days of home quarantine advice stays in their home only. COVID Suraksha provides regular real-time online feedback on the performance of the Surveillance Teams, to the District Administration. The App is equipped with QR code scanner, location update and geofencing.

A unique QR Code is assigned to each of the Home Quarantined person and pasted on their room/home. Health worker will visit the home of the Quarantine and scan the QR code after a medical check-up. To ensure that the health workers are scanning the QR code from home of the quarantine person only, the current device location while scanning is obtained and sent to the server. The Concerned Officials of the District Administration can now view visit status of the health workers in a web dashboard and ensure that each home quarantined persons got medical check-up.

In this version, the QR code assigned is available in the Home Quarantined person's user login. So, pasting of QR code will only be required in cases where the person don't own any Android phone.

Geofencing is the newly added feature which will help to send alert to the concerned authority if the home quarantine person leaves the circle of radius 150m from his/her home. But for this feature to be working, location feature of the device need to be always ON and the user need to carry their device with them only.

Another feature of sending regular selfie photo update is added in this version of the app. This will help to send timely photo update to the District Administration. The other information like location coordinates of the photo taken, timestamp etc are also sent to the server. A notification feature is also added to remind the user to send their selfie timely during day hours.

Mobile App (Android)

Features: The following are the main features of the Android app:

1. Common platform for both home quarantine persons and health workers.
2. Registration of citizens advised for 14 days' home quarantine.
3. Users can login to the app using provided credentials.
4. Profile section of the users.
5. Useful information on the user's dashboard.
6. QR code section of the home quarantine person.
7. Sending of regular selfie photo update containing current location coordinates, timestamp etc.
8. Timely notification to remind about sending periodic selfie update.
9. Notification when the user exits/enters the geofence area.
10. Geofencing feature to send alert to the concerned authority if the home quarantine person crosses the circle of 150m from his/her home.

11. An inbuilt QR Scanner to scan the QR code of the Home Quarantine.
12. Scanned data is synced with server.
13. Location feature to detect current scan location coordinates.
14. Location data is stored in server.
15. Simple and User friendly.

Web based Dashboard: The Web Dashboard consists of the following features:

1. Viewing of the selfie photos sent by the home quarantine user.
2. Registration of new Home Quarantine Case.
3. Registration of Health Worker.
4. Single/Bulk Generation of QR Code.
5. Viewing of all the Home Quarantine persons and their assigned Health Worker daily visit status.
6. Viewing of geofence status of the users.

Android app:

Citizen's module:

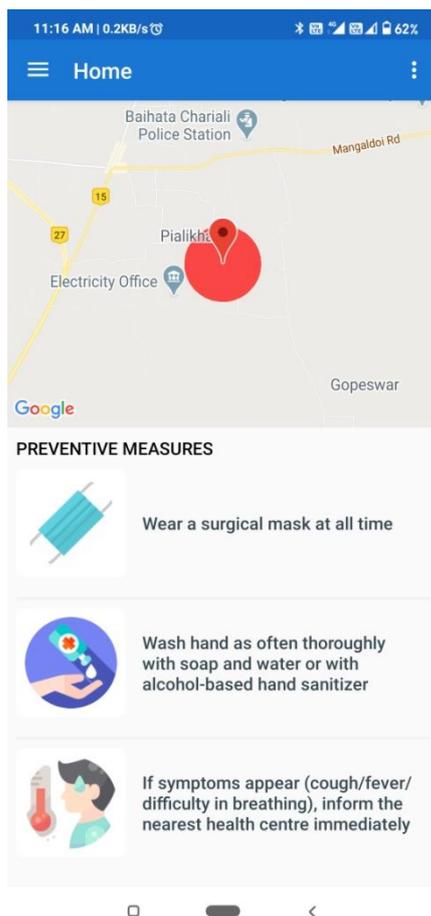


Fig: Home screen displaying the geofence area.

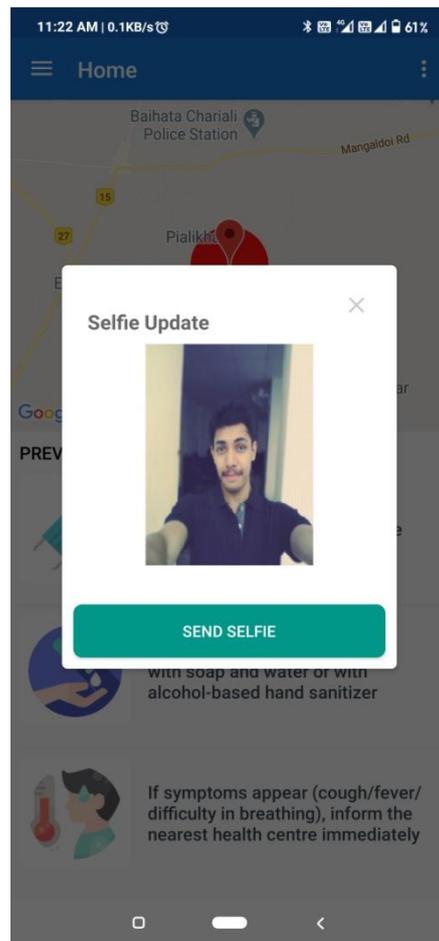


Fig: Sending of selfie photo

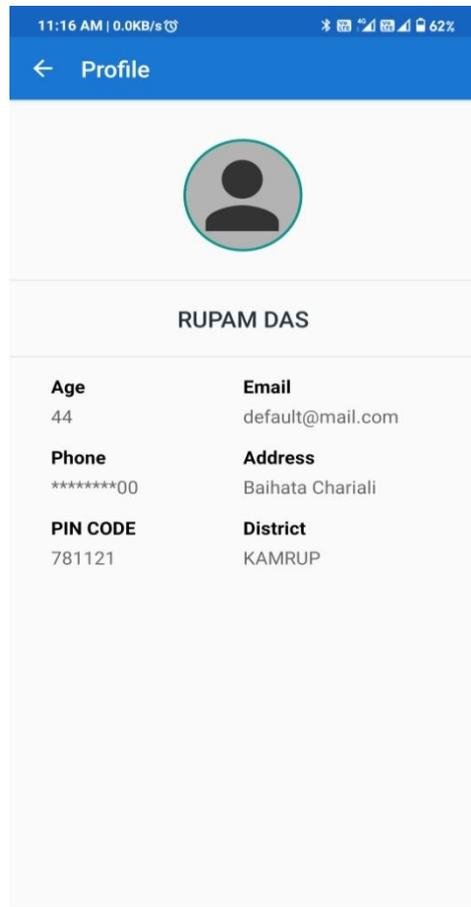
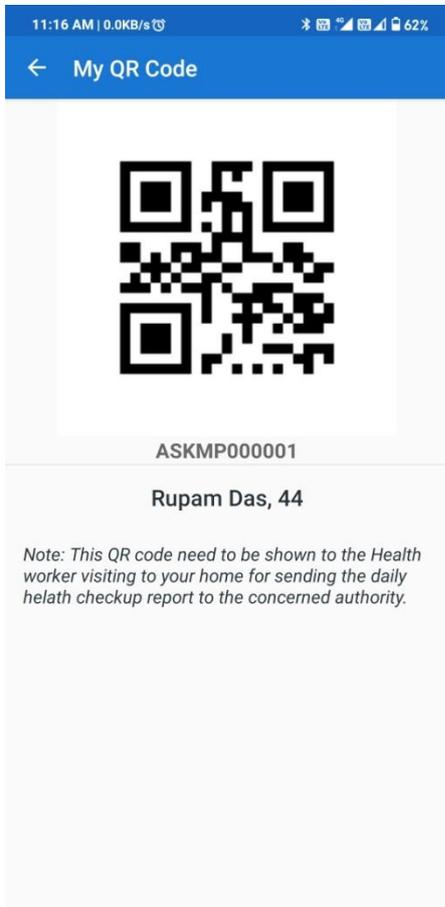


Fig: QR code section displaying assigned QR code

Fig: Profile section displaying user details

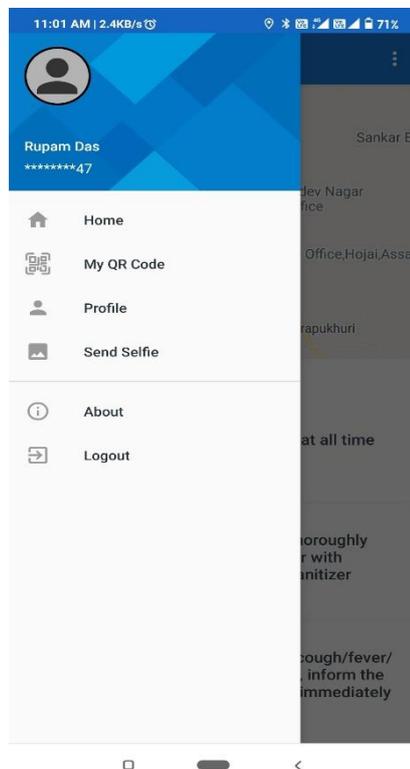


Fig: Left navigation menu

Health Worker's Module:

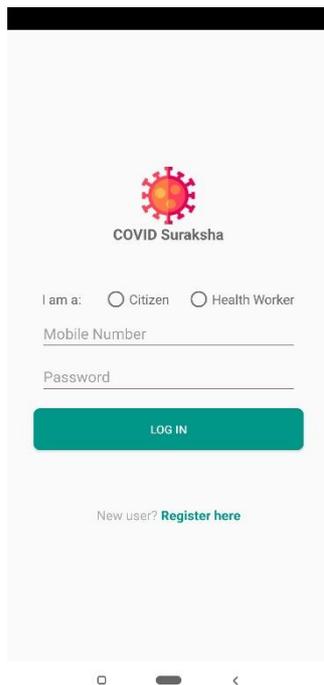


Fig: User login screen button.

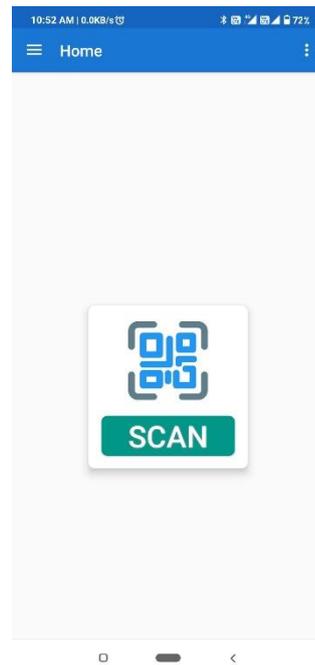


Fig: Home screen containing SCAN



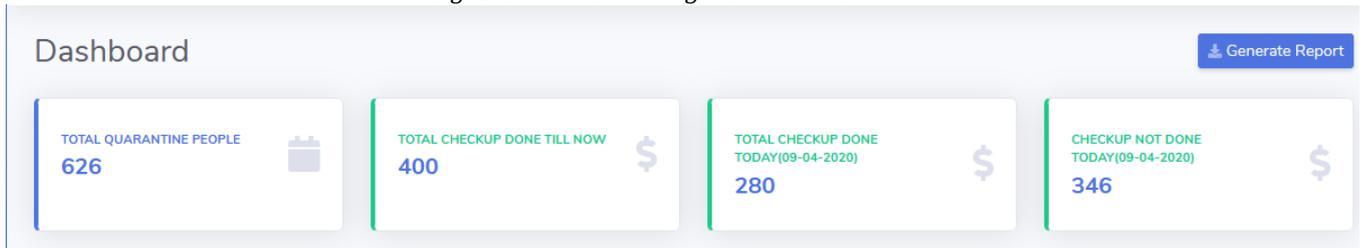
Fig: QR Scanner



Fig: A dialog is displayed to enter input of the health condition of the Home Quarantined person. After clicking Submit, data is sent to server.

Web Dashboard:

Fig: Dashboard showing various statistics



quarantined_id ↑	Name of Traveller ↑	Age ↑	Address ↑	Contact No ↑	ACTION ↑
ASHOJ000001	Subrata Das	28 Yrs	C/O: Rabi Das, Jurapukhuri, Buragaon		Edit Delete
ASHOJ000002	Subrata Das	28 Yrs	C/O: Rabi Das, Jurapukhuri, Buragaon		Edit Delete
ASHOJ000003	Bishal Mazumdar	22 Yrs	C/O: Dulal Mazumdar, Lanka gaon 10 Ward	70156-16142	Edit Delete
ASHOJ000004	Basu Mazumdar	31 Yrs	C/O: Mantu Mazumdar, Lanka gaon 10 no. Ward	80536-17910	Edit Delete
ASHOJ000005	Bishal Mazumdar	22 Yrs	C/O: Dulal Mazumdar, Lanka gaon 10 Ward	70156-16142	Edit Delete
ASHOJ000006	Basu Mazumdar	31 Yrs	C/O: Mantu Mazumdar, Lanka gaon 10 no. Ward	80536-17910	Edit Delete
ASHOJ000007	Pravat Talukdar	30 Yrs	C/O: Manuranjan Talukdar, Shilong Road	80115-40592	Edit Delete

Fig: List of Home Quarantined persons

The interface shows a sidebar with 'COVID19' and 'Covid19-Dashboard' options. The main area is titled 'QR Code Scanner' and contains two input fields for 'Serial no. From' (with value '1') and 'To' (with value '18'). A 'Generate QR Code' button is positioned below the inputs. A search bar and a 'Click here for logout' link are also visible at the top.

Fig: Bulk QR Code Generator

Minimum Requirements:

- Android V4.4(Kitkat) having Camera and GPS features
- Internet Connection needed to be set ON always
- GPS Location need to be enabled always. “High Accuracy” option is preferred
- “Ignore Battery Optimization” option should be enabled for better functioning