CSE471-System Analysis and Design

Lab Project

Topic: Android Covid Patient Tracker System

Group Number: 05

Section: 08

Group Members:

Student ID	Student Name
18301279	Sadia Sobhana Ridi
19101097	Jannatul Farzana Tandra
19101098	Mahmudul Hasan Emon

System Request:

Project Sponsor: Mahmudul Hasan Emon, Researcher and analyst of *Bongo-vax*.

Business Need:

This system will help tracking COVID patients so that Upazila, Medical officer and health department can take necessary steps such as isolation, duty officer and oxygen availability. This will also help researchers of COVID to detect the symptoms of affected persons and determine whether that person is affected by the new variants of COVID or not by which they can inform the respective authorities to enforce lockdown in that person's house and his or her nearby locality.

Business Requirements:

- The system should allow the customers to choose their preferred language.
- Person should be able to test himself/herself to the nearest COVID hospital by taking appointments from this system.
- Person should be able to know his/her COVID test result within 24 hours through this system.
- Patients should be able to contact emergency doctors and can take suggestions by informing their (patient's) symptoms to the available doctors through this system.

- Anyone can book emergency isolation, ambulance through this system which is directly connected through "***Jatiyo Joruri Sheba-999***".

- Eligible persons for taking their desired vaccine should be able to book his/her vaccination date according to the availability of vaccine through this system. Moreover, after a fixed period of time the system will automatically inform that person to take his/her next dose of vaccine.

- Health department of our country should be able to know each day how many people get affected, how many people die and how many people recover through this system which will help the responsible authority to daily update the ratio of affected, dead and recovery percentage. By analyzing it, the Government will benefit to take necessary steps such as 'lockdown' or anything that is necessary.

- Government should be able to alert the common people to things such as wearing a 'face mask' or 'sanitizing' or 'stay at home' via SMS through this system.

Business Value:

- ☐ Our system can not only provide covid affected patient's data but also allows local hospitals or medical centers to identify patient's location accurately.

- ☐ Provide faster ways of getting Covid essentials such as face mask, hand sanitizer, gloves, prescribed medicine as well as emergency ambulance service.

- ☐ People can be benefitted as they will be able to find affected areas and try not to go there . For this, the percentage of covid affected people will decrease by minimum 20-30%.

- ☐ The death rate by covid will be reduced when the health ministry will isolate that area.

- ☐ Patients' satisfaction must be prioritized.

- ☐ Referral of patients, doctors, health ministry.

- ☐ Increase of recovery percentage because of getting awareness will increase 5-10%

Constraints:

- The system requires it to be updated 24/7 as it's necessary to check the list whether the patient number increases or not.
- Patients should fill up their registration form within a deadline to get the Covid-19 vaccine through this system.

- Security flaws in the system could allow the hackers to access the patient's highly personal information including the name, bank information, messages and his national id number.
- Technical barriers can be a threat for the system as not everyone has a compatible smartphone or access to the internet connection.
- Privacy concerns related to user data might affect the acceptance and unwillingness to use this tracking system.
- promoting this new system into the remote and unprivileged areas and making them adapt to it is very challenging.