

# 1. Quality Healthcare

## Group Description:-

We are Bit Devs from Techno International Batanagar we chose problem statement no 1 Quality Healthcare, our team members include (Subhadeep Banerjee, Suvhradip Ghosh, Alisha Shaw, Sayan Mandal, Shubham Nag and Shahbaz UI Haque)

## Abstract:-

Medisol is a user-friendly android application that is an AI virtual doctor to patients in rural areas. Medisol will provide correct information and medication which one can follow anywhere when they are in emergency. This app focuses to solve the problems in rural area, such as lack of transportation, inexperienced doctors and overcrowding. This app uses Artificial Intelligence which can predict fatal diseases a patient might have by just using their basic test reports. Not only it will predict the disease but also will suggest them the proper medication for the time being. People in rural areas now could be able to know the diseases they might have without worrying about the availability of modern technologies in rural areas. Pregnant women in rural areas now can take care of themselves throughout her pregnancy using this app. Medisol has features like exercise suggestion and proper diet tips which a patient or any pregnant women can follow for their diseases or pregnancy period. The app will help the patient to take immediate actions during the emergency and inform him about the nearest hospital. Medisol also has first aid feature for caring for injured or ill persons until they can receive professional medical care.

Medisol app is the solution for health-related problems and the lack of facilities in remote areas.

## Features of Medisol:-

1. A First Aid feature that will provide information and directions of what and how to use first aid in different type situations like cuts, burns, and wounds.
2. Patients would be able to select those symptoms which they are facing like headache, vomiting, chest pain, etc. Not only the app will inform them about the disease they have using selected symptoms but it also will provide the medications one should take for the same.
3. The most helpful function of this app is that it can predict diseases like a Brain tumour; Malaria, pneumonia and diabetes a person might have by using only their basic test reports. The technology used behind it is artificial intelligence which will give 98%-100% accuracy.
4. Pregnant women would be provided with every information and medication they should take care of during their pregnancy period. With the help of this app, they can practice exercises which not only are healthy for them but also for their foetus.
5. A Medicine Reminder, which will remind the patients about the medicines they need take from time to time.
6. Healthcare monitoring comes with and with Google Fit Api to check on health
7. This app will let the patient know the nearest hospital from his current location. Thus, saving their precious time.
8. In case of emergency, the app will provide the information; steps and medication one should follow immediately in order to get stabilize for time being, after which the patient could be admitted to the nearest hospital.

## **Scale of Impact:-**

India was reported to have nearly 70% of the Indian population living in rural areas. 200 million people in rural areas have internet access. According to the report, digital adoption is now being propelled by rural India and figures show that it has registered 35% growth in internet users over the past year. This means Medisol app is going to have a huge impact and will save the lives of a large number of people with ease.

## **User Experience:-**

Medisol is built on Flutter and Material Design which is used to design Expressive Beautiful User Interfaces. Medisol ensures best in the class User Experience.

## **Clarity:-**

The quality and clarity of user-interface, treatment and medication of Medisol app are what which makes it user-friendly. Users can easily understand medication and treatment in their own preferred language. Medisol comes to with a How to use this app for first time users, and with beautiful and expressive user the app does not consist of unnecessary information but instead, it gives only those medication which is required. Thus, simplifying it as much as possible.

## **Practicability and Feasibility:-**

As a large number of people in rural areas now have internet access, they can easily use Medisol app. Medisol app has a neat user- interface and very convenient to use. Our app gives the advantage of using it in your own preferred language. Users can predict their disease just by submitting their basic test reports which are of huge importance in rural areas. They can treat themselves easily at home without depending much on doctors. Medisol app will make a huge difference among the lives of helpless people.

## **Association of theme**

Medisol is an user friendly mobile application which aim to solve health-related problems and the lack of facilities in remote areas. Medisol is open source so that it can be picked up and used for a social cause. It will have huge impact on the society because the survey says that 70% of the Indian population living in rural areas. 200 million people in rural areas have internet access

## **Potential for Future Work:-**

- VUI (voice user interface) can be added as a guide of the app.
- AR (Augmented Reality) can be added to show the different type of exercise in 3D.
- Pose net Model can be integrated to correct the wrong exercises positions of the user.
- Online medicine booking facility can also be added for user of remote places.

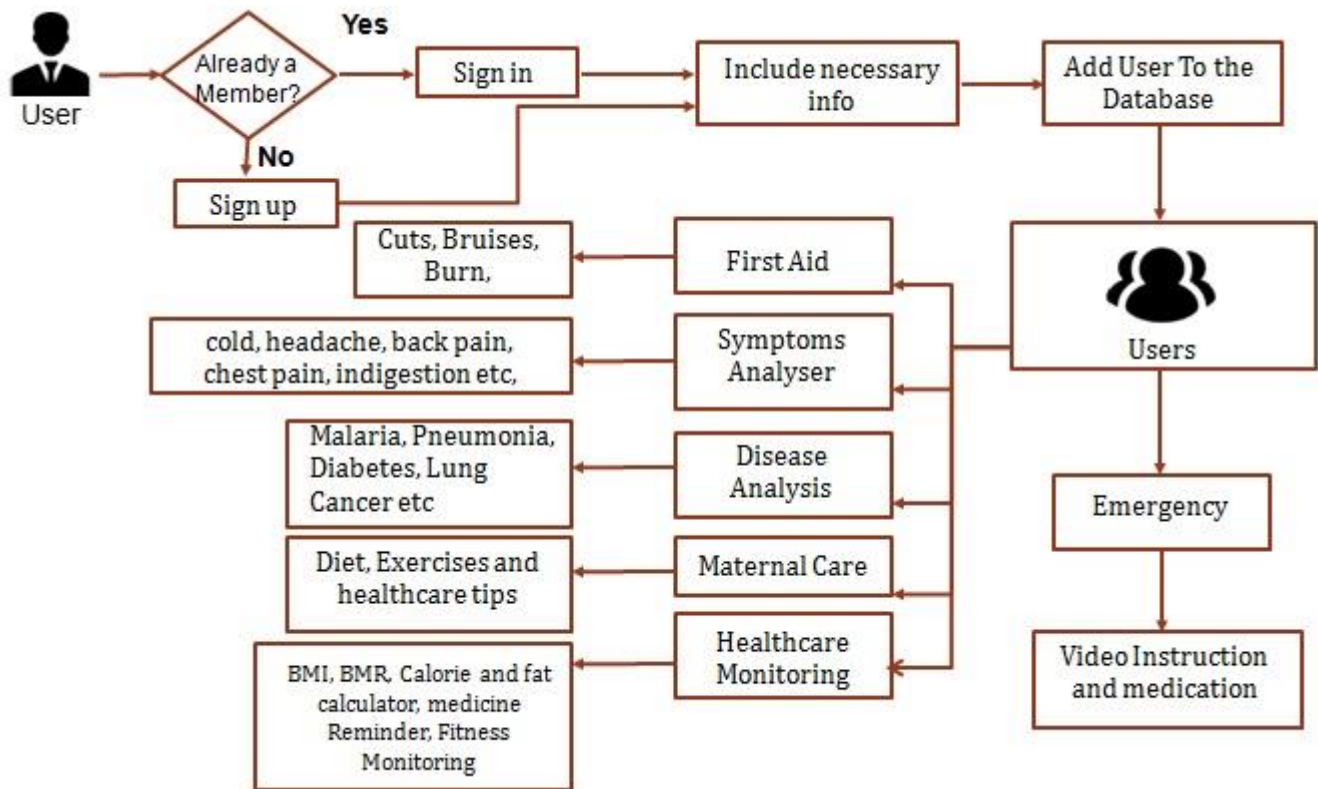
## **Dataset used:-**

- Malaria (Kaggle)
- Diabetes (Kaggle)
- Brain tumour (Kaggle)
- Pneumonia (Kaggle)

## **API Used:-**

- Google Map
- Google Fit API
- Google Translate API

## Work Flow Diagram:-



## Uses Case Diagram:-

