# Chapter -1

## INTRODUCTION

# 1.1 Project Summary

This Project is entitled as Medi Consult. As the name itself suggest it is a Medical App. It takes Symptoms as user's inputs and displays the list of Diseases as per priorities based on list of Symptoms provided by User.

Medi Consult application is an Android project. It helps the user to get medical information about a different physical health condition. To run the project you will need Android Studio. So before you run the project make sure that you have Android Studio on your computer. The app facilitates the user with the medical help online providing drug and medical information to the person. The Health Prediction application is an end user support and online consultation project. Here we propose an android application that allows users to get instant guidance on their health issues through an intelligent health care application online. The application is fed with various symptoms and the disease/illness associated with those systems.

## 1.2 Project Purpose

As we know in today's rush it is difficult to take a Doctor's appointment in Emergency. So, what to do until we get an appointment with Doctor. That's where this App's comes into the action. A user can input their Symptoms and can get a list of Diseases they may poses.

# 1.3 Project Scope

With the help of this application one can prevent their Diseases from spreading more. This can save someone's Life who cannot reach to the Doctor in case of Emergency. They can at least take some action for preventing their Disease.

# 1.4Technology and Literature Review

In the recent years, the advances in mobile technology have brought an exorbitant change in daily lifestyle of individuals. Smartphones/mobile devices are rampant in all aspects of human life. This has led to an extreme demand for developing software that runs on mobile devices. The developers have to keep up with this high demand and deliver high-quality app on time and within budget. For this, estimation of development and testing of apps play a pivotal role. In this paper, a Systematic Literature Review (SLR) is conducted to highlight development and testing estimation process for software/application. The goal of the present literature survey is to identify and compare existing test estimation techniques for traditional software (desktop/laptop) and for mobile software/application. The characteristics that make mobile software/application different from traditional software are identified in this literature survey. Further, the trend for developing the software is towards agile, thus this study also presents and compares estimation techniques used in agile software development for mobile applications. The analysis of literature review suggests filling a research gap to present formal models for estimating mobile application considering specific characteristics of mobile software.

#### 1.5 Problem Statement

Medi consult is a android-based online consultation mobile app. Here we prepare an android application that allows users to get instant guidance on their health issues through An intelligent health care application online. The application allows user to share their symptoms and issues.

# 1.6 Objective Of The Project

As we know in today's rush it is difficult to take a Doctor's appointment in Emergency. So, what to do until we get an appointment with Doctor. That's where this App's comes into the action. A user can input their Symptoms and can get a list of diseases they may poses. With the help of this application one can prevent their Diseases from spreading more. This can save someone's Life who cannot reach to the Doctor in case of Emergency. They can atleast take some action for preventing their disease. This highlights the novelty of the proposed app.

# 1.7 Organization Of The Report

The project was organised in a systematic way. First we analysed what are the basic features to be included in the project to make it acceptable. As it is a android project, we made the blueprint of xml design prior (Incude it in the report), so as to have an idea like how our output must look like. After all these, the source code was formulated as a paper work. All the required software were downloaded. Finally, the successful implementation of the project.

# **Chapter -2**

# SYSTEM SPECIFICATION

### 2.1 User Characteristics

- User-friendly
- Simple interface.
- Speed-Fast loading screens.
- Most Convenient
- Flexibility
- Search Options
- Good Image resolution
- Security
- Bright and bold colour schemes
- Dark mode adaptable
- Notification on Internet disable

# 2.2 Hardware and Software Requirements

- A 64-bit environment is required for Android 2.3.x (Gingerbread) and higher versions, including the master branch. You can compile older versions on 32-bit systems.
- At least 250GB of free disk space to check out the code and an extra 150 GB to build it. If you conduct multiple builds, you need additional space.

**Note:** If you're checking out a mirror, you need more space as full Android Open Source Project (AOSP) mirrors contain all Git repositories that have ever been used.

- At least 4 GB of available RAM is required.
- Microsoft Windows 7/8/10 (32 or 64 bit).

# 2.3 Project Operation Constraints

#### 1. Quality

Quality is one of six major constraints of every project.

#### 2. Time

One of the most important stakeholder considerations, project time (how long it will take to deliver), is a vital measure of project success. Your task is to estimate project time as accurately as possible, which requires a blend of research and experience.

### 3.Scope

Since a project scope is not an estimate but a guaranteed set of deliverables, it's difficult to imagine creating a range for this project constraint.

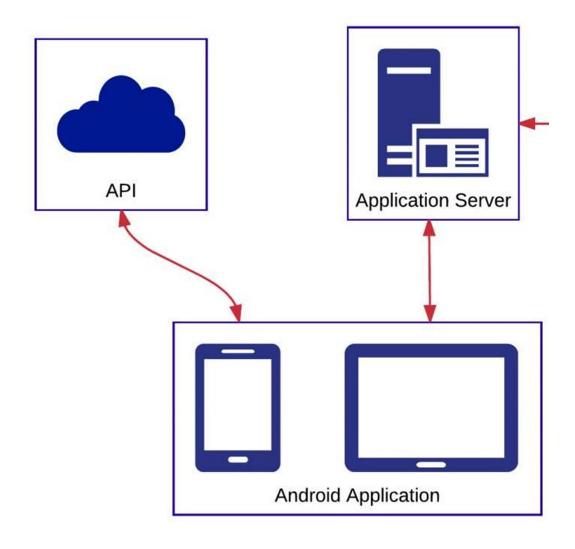
#### 4. Benefits

The projected benefits of any project should be clearly think before project planning. To put it simply, a project's value must be determined early and fully agreed upon before launch

# **Chapter -3**

# **DESIGN**

# 3.1 System Architecture Design



# 3.2 Data Flow Graph

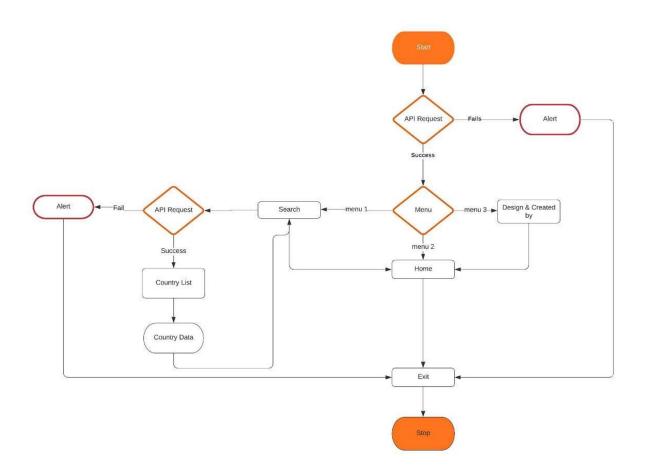


Figure 3.2 Data Flow Graph

# 3.3 DATA Flow Graph Description

Start: When you enter the app will directly send request to API.

**API**: When API receives the request, if network is not available request will be terminated and user gets the alert message.

**Menu**: If the request is accepted then user will be able to select one of the options in menu bar.

**Home**: In home activity user can see total information about the symptoms.

**Search**: In search bar we can select one of the symptoms, emergency call and near by hospitals.

Exit: If API doesn't accept's the request, user will enter exit mode and app will gets closed.

# 3.4 Module Description

The program consists of following modules:

- Home: In the Home activity basically global Stats of Information about patient.
- **Search:** In this activity the symptoms lists are shown.

# Chapter -4

### **IMPLEMENTATION**

#### 4.1 Built in Functions

### 1. Relative Layout:

Relative-Layout is a view group that displays child views in relative positions. The position of each view can be specified as relative to sibling elements or in positions relative to the parent Relative-Layout area.

#### 2. Card View:

Apps often need to display data in similarly styled containers. These containers are often used in lists to hold each item's information. The system provides the Card-View API as an easy way for you to show information inside cards that have a consistent look across the platform. These cards have a default elevation above their containing view group, so the system draws shadows below them. Cards provide an easy way to contain a group of views while providing a consistent style for the container.

#### 3. Linear Layout:

Linear-Layout is a view group that aligns all children in a single direction, vertically or horizontally. You can specify the layout direction with the android: orientation attribute.

#### 4. Loader:

The Loader API lets you load data from a content provider or other data source for display in an Fragment Activity or Fragment.

#### 5. Scroll View:

A view group that allows the view hierarchy placed within it to be scrolled. Scroll view may have only one direct child placed within it.

#### **6.Frame Layout:**

Frame Layout is designed to block out an area on the screen to display a single item.

**7.Meow Bottom Navigation:** A simple & curved & material bottom navigation for Android.

#### 8. Dialog box:

A dialog is a small window that prompts the user to make a decision or enter additional information.

#### 9. setOnClickMenuListener():

To make click event work add android: onClick attribute to the Button element in your XML layout. The value for this attribute must be the name of the method you want to call in response to a click event. The Activity hosting the layout must then implement the corresponding method.

#### 10. StringRequest():

Android Volley StringRequest, StringRequest is used when you want the response returned in the form of a String.

#### 11. Volley Library():

Volley is an HTTP library that makes networking for Android apps easier and most importantly, faster.

#### 12. getSupportActionBar():

To use the Action Bar utility methods, call the activity's getSupportActionBar() method. This method returns a reference to an apprompat ActionBar object.

#### 13. Adapter:

An Adapter object acts as a bridge between an AdapterView and the underlying data for that view. The Adapter provides access to the data items. The Adapter is also responsible for making a View for each item in the data set.

#### 14. Intent:

An Intent is a messaging object you can use to request an action from another app component.

#### 15. Glide:

Glide is a fast and efficient open source media management and image loading framework for Android that wraps media decoding, memory and disk caching, and resource pooling into a simple and easy to use interface.

#### 16. REST API:

A REST API defines a set of functions which developers can perform requests and receive responses via HTTP protocol such as GET and POST.

# 4.2 Android Manifest and Special Permissions

#### 1. Reading network state:

Connectivity Manager tells your app about the state of connectivity in the system.

The Network class represents one of the networks that the device is currently connected to. You can use the Network object as a key to gather information about the network with Connectivity Manager or to bind sockets on the network. When the network disconnects, the Network object stops being usable; even if the device later reconnects to the same appliance, a new Network object will represent the new network.

#### 2. Connect to the network:

To perform network operations in our application.

#### 3. Dark Theme:

Dark theme is available in Android 10 (API level 29) and higher. It has many benefits: Can reduce power usage by a significant amount (depending on the device's screen technology).

Improves visibility for users with low vision and those who are sensitive to bright light.

Makes it easier for anyone to use a device in a low-light environment

#### 4.3 XML and Java Code

Activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.drawerlayout.widget.DrawerLayout
xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:id="@+id/draw activity"
  android:layout width="match_parent"
  android:layout height="match parent"
  android:fitsSystemWindows="true"
  android:theme="@style/Theme.AppCompat"
  tools:context=".MainActivity"
  tools:openDrawer="start"
  android:background="@color/white">
  <androidx.constraintlayout.widget.ConstraintLayout</p>
    android:layout width="wrap content"
    android:layout height="wrap content">
    <androidx.appcompat.widget.Toolbar
       android:id="@+id/toolbar"
       android:layout width="match parent"
       android:layout height="?attr/actionBarSize"
       android:elevation="10dp"
       android:theme="@style/AppTheme.NoActionBar"
       app:popupTheme="@style/Theme.AppCompat.Light"
       tools:ignore="MissingConstraints">
    </androidx.appcompat.widget.Toolbar>
    <TextView
       android:id="@+id/textView3"
       android:layout width="166dp"
       android:layout height="40dp"
       android:layout marginTop="2dp"
       android:fontFamily="sans-serif"
       android:text="Medi Consult"
       android:textAlignment="center"
       android:textColor="@color/black"
       android:textSize="24sp"
       app:layout constraintBottom toBottomOf="parent"
       app:layout constraintEnd toEndOf="parent"
```

```
app:layout constraintHorizontal bias="0.189"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="@+id/toolbar"
  app:layout constraintVertical bias="0.013" />
<EditText
  android:id="@+id/nametext"
  android:layout width="224dp"
  android:layout height="49dp"
  android:ems="10"
  android:hint="Enter Your Name"
  android:inputType="textPersonName"
  android:paddingLeft="15dp"
  android:textAlignment="textStart"
  android:textColor="@color/black"
  android:textColorHint="@color/grey"
  android:textSize="22sp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="@+id/toolbar"
  app:layout constraintHorizontal bias="0.668"
  app:layout constraintStart toStartOf="@+id/toolbar"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.53"
  tools:ignore="Autofill,HardcodedText" />
<ImageView
  android:id="@+id/imageView6"
  android:layout width="39dp"
  android:layout height="46dp"
  android:layout marginStart="20dp"
  android:layout marginTop="28dp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.146"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.512"
  app:srcCompat="@drawable/name" />
<EditText
  android:id="@+id/agetext"
  android:layout width="224dp"
  android:layout height="49dp"
```

```
android:layout marginEnd="12dp"
  android:ems="10"
  android:hint="Enter Your Age"
  android:inputType="phone"
  android:paddingLeft="15sp"
  android:textColor="@color/black"
  android:textColorHint="@color/grey"
  android:textSize="22sp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.712"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.628" />
<ImageView
  android:id="@+id/imageView9"
  android:layout width="46dp"
  android:layout height="36dp"
  android:layout marginStart="26dp"
  android:layout marginTop="10dp"
  android:layout marginBottom="5dp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.122"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="@+id/toolbar"
  app:layout constraintVertical bias="0.626"
  app:srcCompat="@drawable/age" />
<ImageView
  android:id="@+id/imageView7"
  android:layout width="106dp"
  android:layout height="103dp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.498"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="@+id/toolbar"
  app:layout constraintVertical bias="0.917"
  app:srcCompat="@drawable/enter1" />
< Radio Group
  android:id="@+id/rg1"
  android:layout width="320dp"
  android:layout height="54dp"
  android:orientation="horizontal"
  app:layout constraintBottom toBottomOf="parent"
```

```
app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.494"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.738">
  <RadioButton
    android:id="@+id/male"
    android:layout width="135dp"
    android:layout height="43dp"
    android:layout marginLeft="29dp"
    android:buttonTint="#34B7FF"
    android:checked="false"
    android:text=" Male"
    android:textAlignment="textStart"
    android:textColor="@color/black"
    android:textSize="24sp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.172"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="@+id/toolbar"
    app:layout constraintVertical bias="0.566" />
  <RadioButton
    android:id="@+id/female"
    android:layout width="145dp"
    android:layout height="43dp"
    android:buttonTint="#34B7FF"
    android:checked="false"
    android:paddingLeft="5dp"
    android:text=" Female"
    android:textAlignment="textStart"
    android:textColor="@color/black"
    android:textSize="24sp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.849"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
  </com.leo.simplearcloader.SimpleArcLoader>
  <ScrollView
    android:layout width="match parent"
    android:layout height="match parent"
    app:layout constraintVertical bias="0.566"/>
</RadioGroup>
```

```
<ImageView
  android:id="@+id/imageView8"
  android:layout width="133dp"
  android:layout height="286dp"
  android:layout marginStart="150dp"
  android:visibility="visible"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.64"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="@+id/toolbar"
  app:layout constraintVertical bias="0.125"
  app:srcCompat="@drawable/doc" />
<ImageView
  android:id="@+id/imageView13"
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  android:elevation="1dp"
  android:layout height="1.5dp"
  android:layout marginEnd="12dp"
  android:layout marginBottom="22dp"
  android:background="@color/black"
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  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.358"
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  app:layout constraintTop toTopOf="@+id/toolbar"
  app:layout constraintVertical bias="0.257"
  app:srcCompat="@drawable/s1" />
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  android:layout height="38dp"
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  android:layout marginEnd="18dp"
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  app:layout constraintEnd toEndOf="parent"
  app:layout_constraintHorizontal bias="0.465"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.236"
  app:srcCompat="@drawable/apple" />
<ImageView
  android:id="@+id/and"
  android:layout width="57dp"
  android:layout height="52dp"
  android:layout marginStart="12dp"
```

```
android:layout marginTop="12dp"
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  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.453"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.154"
  app:srcCompat="@drawable/android1" />
<TextView
  android:id="@+id/apple1"
  android:layout width="137dp"
  android:layout height="143dp"
  android:background="@android:color/transparent"
  android:clickable="false"
  android:editable="false"
  android:contextClickable="false"
  android:textIsSelectable="false"
  android:ems="10"
  android:fontFamily="@font/bad script"
  android:gravity="start|top"
  android:inputType="textMultiLine"
  android:saveEnabled="false"
  android:singleLine="false"
  android:text="An Apple\nA Day Keeps\nDoctor Away ."
  android:textColor="@color/black"
  android:textSize="24sp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.262"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.268" />
<TextView
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  android:layout height="43dp"
  android:layout marginBottom="5dp"
  android:background="@android:color/transparent"
  android:clickable="false"
  android:ems="10"
  android:fontFamily="@font/bad script"
  android:gravity="start|top"
  android:inputType="textMultiLine"
  android:singleLine="false"
```

```
android:text="APP"
    android:textColor="@color/black"
    android:textSize="24sp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.338"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.175" />
  <ImageView
    android:id="@+id/imageView5"
    android:layout width="20dp"
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    app:layout constraintHorizontal bias="0.115"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.22"
    app:srcCompat="@drawable/q left" />
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    android:layout height="20dp"
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    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.514"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.362"
    app:srcCompat="@drawable/q right" />
</androidx.constraintlayout.widget.ConstraintLayout>
<com.google.android.material.navigation.NavigationView</p>
  android:id="@+id/nav view"
  android:layout width="wrap content"
  android:layout height="match parent"
  android:layout gravity="start"
  app:headerLayout="@layout/nav header"
  app:menu="@menu/drawer menu"
  tools:ignore="MissingConstraints" />
```

</androidx.drawerlayout.widget.DrawerLayout>

#### MainActivity.java

```
package com.ndkapp.www.mediconsult;
import android.app.IntentService;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.appcompat.widget.Toolbar;
import androidx.appcompat.app.ActionBarDrawerToggle;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.view.GravityCompat;
import androidx.drawerlayout.widget.DrawerLayout;
import com.google.android.material.navigation.NavigationView;
public class MainActivity extends AppCompatActivity {
  Toolbar t;
  DrawerLayout drawer;
  EditText nametext:
  EditText agetext;
  ImageView enter;
  RadioButton male;
  RadioButton female;
  RadioGroup rg;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    drawer = findViewById(R.id.draw activity);
    t = (Toolbar) findViewById(R.id.toolbar);
    nametext = findViewById(R.id.nametext);
    agetext = findViewById(R.id.agetext);
    enter = findViewById(R.id.imageView7);
    male = findViewById(R.id.male);
    female = findViewById(R.id.female);
    rg=findViewById(R.id.rg1);
```

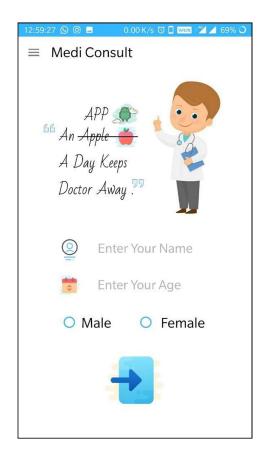
```
ActionBarDrawerToggle toggle = new ActionBarDrawerToggle(this, drawer, t,
R.string.navigation drawer open, R.string.navigation drawer close);
    drawer.addDrawerListener(toggle);
    toggle.syncState();
    NavigationView nav = findViewById(R.id.nav view);
    enter.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View view) {
         String name = nametext.getText().toString();
         String age = agetext.getText().toString();
         String gender= new String();
         int id=rg.getCheckedRadioButtonId();
         switch(id)
            case R.id.male:
              gender = "Mr.";
              break;
            case R.id.female:
              gender = "Ms.";
              break;
         Intent symp = new Intent(MainActivity.this,activity symptoms.class);
         symp.putExtra("name",name);
         symp.putExtra("gender",gender);
         startActivity(symp);
       }
     });
    nav.setNavigationItemSelectedListener(new
NavigationView.OnNavigationItemSelectedListener() {
       @Override
       public boolean onNavigationItemSelected(@NonNull MenuItem menuItem) {
         switch(menuItem.getItemId())
            case R.id.nav sos:
              Intent in = new Intent(MainActivity.this, call.class);
              startActivity(in);
            break;
            case R.id.nav share:
              Intent myIntent = new Intent(Intent.ACTION SEND);
              myIntent.setType("text/plain");
              startActivity(Intent.createChooser(myIntent,"SHARE USING"));
              break;
```

# **Chapter -5**

# **SNAPSHOTS**



Figure 5.1 Welcome page



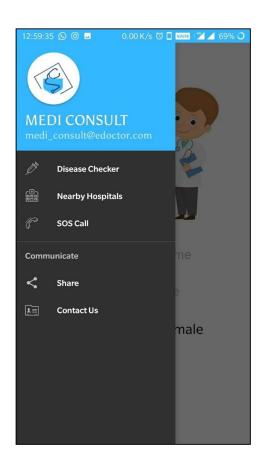
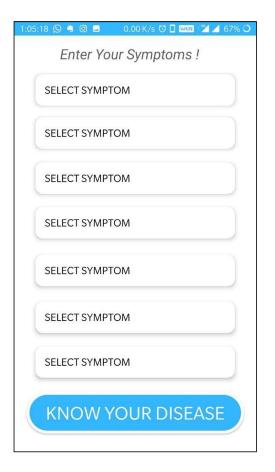


Fig 5.2: Home Page



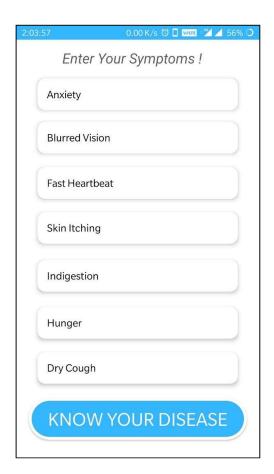
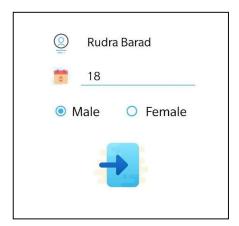
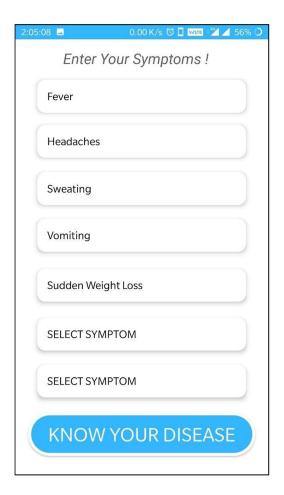
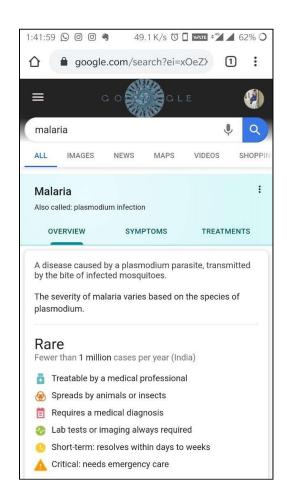


Figure 5.3 Diseases Checker









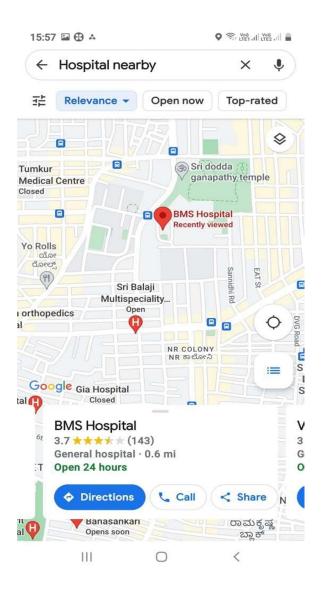


Fig 5.4: Near by Hospital



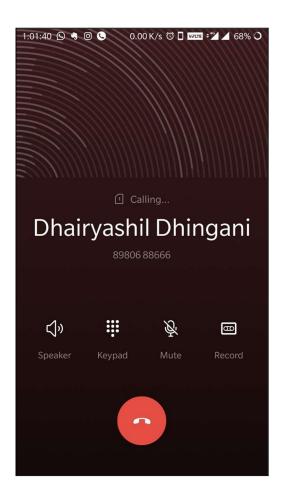


Fig 5.5: Sos call

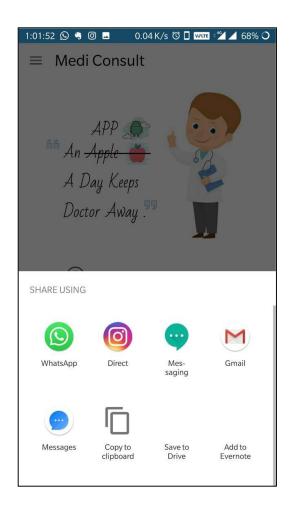


Fig **5.6: Share** 





Fig 5.7 Contact us

# **Chapter -6**

## **CONCLUSION**

The project was a good experience for me. I think that from this project I learnt a lot about how an official application works. The importance of time bound and execution of work was realized. It gave me an experience to develop application like big official applications.

The application is a user friendly and can be run by any person with the help of android phone. The preparation of this project has helped a lot to learn the much unknown features of Android studio and User Interface.

#### **6.1 Future Enhancements**

- Learn a Different Application Like Android Studio from Scratch.
- Changing Dependencies Of Android Studio caused Immense Difficulty.
- Updating Gradle File and Version of Android Studio.
- Asking Permission for Calling while Implementing SOS Module.
- While implementing Google maps API for nearby Hospitals.

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