Mobile Application Development Term Project

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Semester Project

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Title:

Smart Doctor App

Scope:

The Smart Doctor application is inspired by the fact that many people do not know what OTC (Over the Counter) medicines to take if they are sick. Even if they face a minor health issue, the only solution for them is to visit a doctor.

In this ongoing pandemic i.e., Covid-19, an average person avoids going to the hospital to avoid exposure to the virus as hospitals are the hub of viruses including Covid-19. So, for minor medical disorders such as cough, flu or allergy you can make use of this application. Due to reasons mentioned above, many people avoid going to the hospitals because it takes up most of their day and their acute health problems like, cough, fever, etc. end up worsening making people even more sick.

The purpose of our designed application is to help those people who avoid going to the hospitals, if their sickness is not extreme, but do not have the knowledge on what medicine to take. The application will tell you which medicine to take after establishing a link of a certain medicine with the selected symptoms. It will also be helpful for people of old age and for handicapped people for whom it is not convenient to go to the doctor by themselves. So, by using this application they can know what medicine to get for minor diseases/disorders. This interface can also be used in medicine vending machines to make it easy for people to know on what medicine to take.

Design:
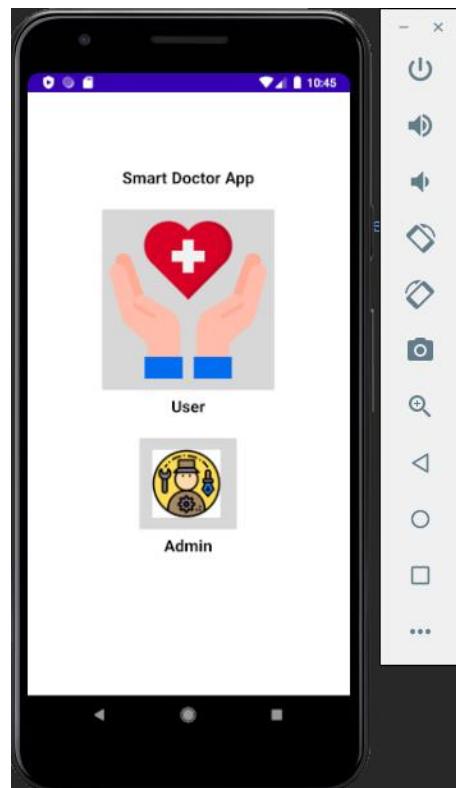
The application is designed in a way to be user friendly for people of all ages, even if people with low exposure to technology can be taught how to use the application to know the name of their desired OTC medicine.

Home page:

As soon as you open the app, it prompts you to a screen where you have the option to either log in as an administrator to take you to the admin dashboard where you can add or remove medicinal data according to the requirements of the person who is later going to use the app.
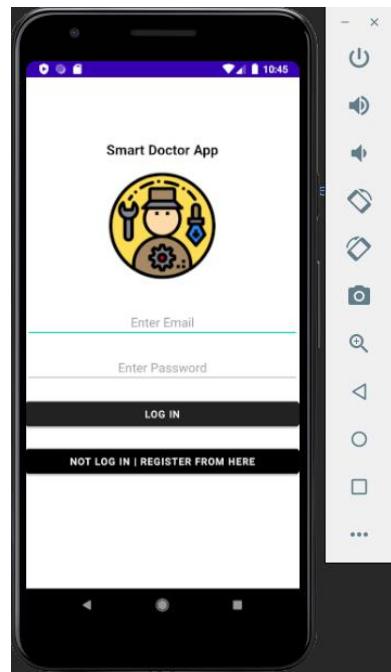
Admin Dashboard:

You can register as an admin and the reason why someone can make use of this feature has been mentioned in the scope of this project.

Admin Registration:

This is the screen where an administrator can be registered to edit the customized needs of specific customers.

Symptoms List View:
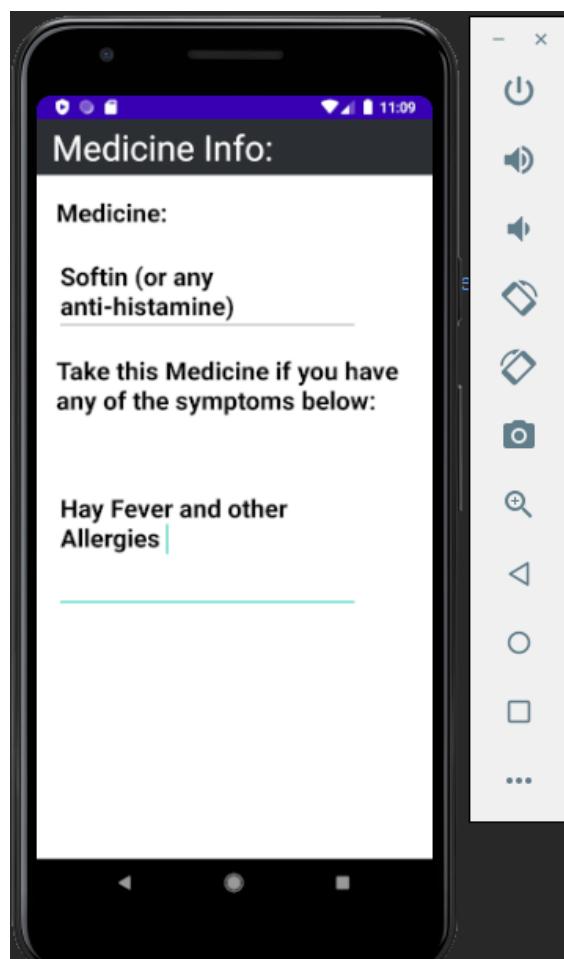
Here you can you see categories with group of symptoms or individual symptoms that you might have, after pressing on the cell that has the symptoms the user has, the app will open a new page showing the name of the OTC medicine that has the most link with your symptoms.

Medicine View Screen:

After pressing on the cell that is in line with your symptoms, a new screen will open to tell you what medicine you should take according to your symptoms.

SQLite Database:

The database that we are using is quite simple as it allows an administrator to view and edit information for the user. On the other hand, the users get the information.
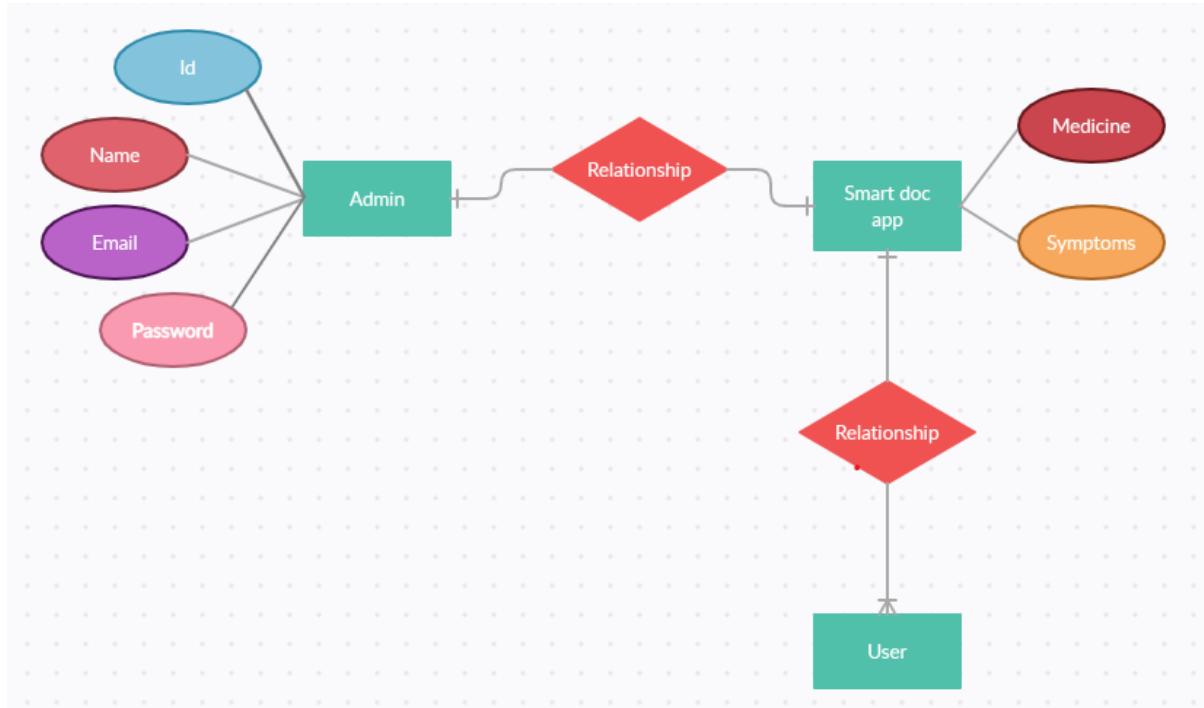
id	name	email	password
1	abdul	abdul@123	1234
2	areeb	areeb123@	areeb1234
3	Hanan	hannan123@gamil	1234
4	Hannan	hannan@gmail	12345

E-R Diagram:

XML Code:

activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:backgroundTint="#050000"
    tools:context=".MainActivity">
```

```xml
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="90dp"
    android:gravity="center"
    android:text="Smart Doctor App"
    android:textColor="#000"
    android:textSize="20dp"
    android:textStyle="bold" />

<ImageView
    android:id="@+id/pic"
    android:layout_width="wrap_content"
    android:layout_height="193dp"
    android:layout_below="@id/textView"
    android:layout_centerHorizontal="true"
    android:gravity="center"
    android:padding="20dp"
    android:src="@drawable/images" />

<EditText
    android:id="@+id/editEmail"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/pic"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="20dp"
    android:ems="10"
    android:gravity="center"
    android:hint="Enter Email"
    android:inputType="textEmailAddress"
    android:textColor="#000" />

<EditText
    android:id="@+id/editPassword"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editEmail"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="20dp"
    android:ems="10"
    android:gravity="center"
    android:hint="Enter Password"
    android:inputType="textPassword"
    android:textColor="#000"
    android:autofillHints="" />

<Button
    android:id="@+id/buttonLogin"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editPassword"
    android:layout_marginTop="20dp"
    android:backgroundTint="#232121"
    android:text="@string/log_in" />
```

```
    <Button
        android:id="@+id/buttonRegister"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/buttonLogin"
        android:layout_marginTop="20dp"
        android:backgroundTint="#020000"
        android:text="@string/not_log_in_register_from_here" />

</RelativeLayout>
```

activity_main2.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity2">

    <androidx.appcompat.widget.Toolbar
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:minHeight="?actionBarSize"
        android:theme="?actionBarTheme"
        android:background="@color/darkgrey">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Symtoms"
            android:textSize="35sp"
            android:textColor="@color/white" />

    </androidx.appcompat.widget.Toolbar>

    <ListView
        android:id="@+id/notelist"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="3dp"
        android:dividerHeight="3dp"
        android:divider="@color/darkgrey"/>

</LinearLayout>
```

activity_admin__dashboard.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Admin_Dashboard">
```

```xml
<androidx.appcompat.widget.Toolbar
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:minHeight="?actionBarSize"
    android:theme="?actionBarTheme"
    android:background="@color/darkgrey">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Admin Dashboard"
        android:textSize="30sp"
        android:textColor="@color/white" />
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Save"
        android:backgroundTint="@color/white"
        android:textSize="35sp"
        android:textColor="@color/darkgrey"
        android:layout_gravity="end"
        android:onClick="savenote"/>
</androidx.appcompat.widget.Toolbar>
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Medicine :"
    android:layout_marginLeft="20dp"
    android:textSize="25sp"
    android:textStyle="bold"
    android:layout_marginTop="20dp"
    android:textColor="@color/black" />

<EditText
    android:id="@+id/titletext"
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="20dp"
    android:maxLines="1"
    android:textSize="25sp"
    android:textStyle="bold"
    android:layout_marginTop="20dp"
    android:textColor="@color/black"/>

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Symptoms:"
    android:layout_marginLeft="15dp"
    android:textSize="25sp"
    android:textStyle="bold"
    android:layout_marginTop="20dp"
    android:textColor="@color/black" />

<EditText
    android:id="@+id/descriptionText"
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="20dp"
```

```
        android:minLines="5"
        android:textSize="25sp"
        android:textStyle="bold"
        android:layout_marginTop="20dp"
        android:textColor="@color/black"/>
    <Button
        android:id="@+id/delbtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Delete"
        android:textSize="25sp"
        android:backgroundTint="@color/white"
        android:textColor="@color/red"
        android:layout_gravity="center"
        android:layout_marginTop="20dp"
        android:onClick="deleteNote"/>


</LinearLayout>
```

activity_admin_dashboard.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".AdminDashboard">

    <androidx.appcompat.widget.Toolbar
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:minHeight="?actionBarSize"
        android:theme="?actionBarTheme"
        android:background="@color/darkgrey">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Dashboard"
            android:textSize="35sp"
            android:textColor="@color/white" />

        <Button
            android:id="@+id/logout"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:backgroundTint="#550C0C"
            android:onClick="logoutactivity"
            android:text="LOGOUT"
            android:textSize="20sp" />

        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
```

```xml
                android:layout_gravity="end"
                android:backgroundTint="#040202"
                android:onClick="newmedicine"
                android:text="@string/plus"
                android:textColor="@color/white"
                android:textSize="35sp" />
    </androidx.appcompat.widget.Toolbar>

    <ListView
        android:id="@+id/notelist"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="3dp"
        android:dividerHeight="3dp"
        android:divider="@color/darkgrey"/>

</LinearLayout>
```

activity_register.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_register"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".RegisterActivity">

    <TextView
        android:text="SQLite User Registration"
        android:gravity="center"
        android:textSize="20dp"
        android:textColor="#000"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:id="@+id/textView" />

    <EditText
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:inputType="textEmailAddress"
        android:hint="Enter Name"
        android:textColor="#000"
        android:ems="10"
        android:layout_below="@+id/textView"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:id="@+id/editName"
        android:gravity="center"/>

    <EditText
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:inputType="textEmailAddress"
        android:hint="Enter Email"
        android:textColor="#000"
```

```xml
        android:ems="10"
        android:layout_below="@+id/editName"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:id="@+id/editEmail"
        android:gravity="center"/>

    <EditText
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:inputType="textPassword"
        android:hint="Enter Password"
        android:textColor="#000"
        android:ems="10"
        android:layout_below="@+id/editEmail"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:id="@+id/editPassword"
        android:gravity="center"/>

    <Button
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:id="@+id/buttonRegister"
        android:layout_below="@+id/editPassword"
        android:layout_marginTop="20dp"
        android:text="Register From here "/>

</RelativeLayout>
```

activity_show_medicine_name.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".showMedicineName">

    <androidx.appcompat.widget.Toolbar
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:minHeight="?actionBarSize"
        android:theme="?actionBarTheme"
        android:background="@color/darkgrey">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Medicine Info:"
            android:textSize="35sp"
            android:textColor="@color/white" />

    </androidx.appcompat.widget.Toolbar>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Medicine:"
```

```xml
        android:layout_marginLeft="20dp"
        android:textSize="25sp"
        android:textStyle="bold"
        android:layout_marginTop="20dp"
        android:textColor="@color/black" />

    <EditText
        android:id="@+id/titletext"
        android:layout_width="300dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:maxLines="2"
        android:textSize="25sp"
        android:textStyle="bold"
        android:layout_marginTop="20dp"
        android:textColor="@color/black"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Take this Medicine if you have any of the symptoms below:"
        android:layout_marginLeft="20dp"
        android:textSize="25sp"
        android:textStyle="bold"
        android:layout_marginTop="20dp"
        android:textColor="@color/black" />

    <EditText
        android:id="@+id/descriptionText"
        android:layout_width="300dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:minLines="5"
        android:textSize="25sp"
        android:textStyle="bold"
        android:layout_marginTop="20dp"
        android:textColor="@color/black"/>


</LinearLayout>
```

activity_startactivity.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Startactivity">

    <TextView
        android:layout_marginTop="90dp"
        android:text="@string/smart_doctor_app"
        android:gravity="center"
        android:textSize="20sp"
        android:textStyle="bold"
        android:textColor="#000"
        android:layout_width="wrap_content"
```

```xml
            android:layout_height="wrap_content"
            android:layout_alignParentTop="true"
            android:layout_centerHorizontal="true"
            android:id="@+id/textView" />


    <ImageButton
            android:id="@+id/admin"
            android:layout_width="127dp"
            android:layout_height="123dp"
            android:layout_marginTop="20dp"
            android:layout_below="@id/textView2"
            android:layout_centerHorizontal="true"
            android:contentDescription="@string/todo"
            android:gravity="center"
            android:padding="20dp"
            android:scaleType="fitStart"
            android:src="@drawable/images" />
    <TextView
            android:text="@string/admin"
            android:gravity="center"
            android:textSize="20sp"
            android:textStyle="bold"
            android:textColor="#000"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:layout_below="@id/admin"
            android:id="@+id/textView1" />


    <ImageButton
            android:id="@+id/buttonuser"
            android:layout_width="218dp"
            android:layout_height="232dp"
            android:layout_below="@+id/textView"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="20dp"
            android:contentDescription="@string/todo1"
            android:scaleType="centerCrop"
            android:src="@drawable/healthcare" />
    <TextView
            android:text="@string/user"
            android:gravity="center"
            android:textSize="20sp"
            android:textStyle="bold"
            android:textColor="#000"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:layout_below="@id/buttonuser"
            android:id="@+id/textView2" />
</RelativeLayout>
```

admin_cell.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:padding="15dp"
    android:layout_height="100dp">
```

```xml
    <TextView
        android:id="@+id/celltitle"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Title"
        android:textStyle="bold"
        android:maxLines="1"
        android:textColor="@color/darkgrey"
        android:textSize="25dp"/>

    <TextView
        android:id="@+id/cellDec"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Description"
        android:maxLines="1"
        android:layout_marginTop="5dp"
        android:textColor="@color/darkgrey"
        android:textSize="20dp"/>


</LinearLayout>
```

user_cell.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:padding="15dp"
    android:layout_height="150dp">

    <TextView
        android:id="@+id/celltitleUSER"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Title"
        android:textStyle="bold"
        android:maxLines="1"
        android:textColor="@color/darkgrey"
        android:textSize="25dp"/>

    <TextView
        android:id="@+id/cellDecUSER"
        android:layout_width="match_parent"
        android:layout_height="150dp"
        android:text="Description"
        android:maxLines="5"
        android:layout_marginTop="5dp"
        android:textColor="@color/darkgrey"
        android:textSize="20dp"/>


</LinearLayout>
```

Java Code:

Admin.java:

```java
package com.example.mad_project;
import java.util.ArrayList;
import java.util.Date;
public class Admin {
    public static ArrayList<Admin> note1ArrayList = new ArrayList<>();
    public static String NOTE_EDIT_EXTRA =  "noteEdit";

    private int id;
    private String title;
    private String description;
    private Date deleted;

    public Admin(int id, String title, String description, Date deleted) {
        this.id = id;
        this.title = title;
        this.description = description;
        this.deleted = deleted;
    }
    public Admin(int id, String title, String description) {
        this.id = id;
        this.title = title;
        this.description = description;
        deleted = null;
    }
    public static Admin getNoteforID(int passedNoteID){
        for(Admin note1 : note1ArrayList)
        {
            if(note1.getId() == passedNoteID)
                return note1;
        }
        return null;
    }

    public static ArrayList<Admin> nondeetdnotes()
    {
        ArrayList<Admin> nondeletdnotes = new ArrayList<>();
        for(Admin admin : note1ArrayList)
        {
            if(admin.getDeleted()==null)
            {
                nondeletdnotes.add(admin);
            }
        }
        return nondeletdnotes;
    }
    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }
```

```java
    public String getTitle() {
        return title;
    }

    public void setTitle(String title) {
        this.title = title;
    }

    public String getDescription() {
        return description;
    }

    public void setDescription(String description) {
        this.description = description;
    }

    public Date getDeleted() {
        return deleted;
    }

    public void setDeleted(Date deleted) {
        this.deleted = deleted;
    }
}
```

Admin_Dashboard.java:

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

import java.util.Date;

public class Admin_Dashboard extends AppCompatActivity {
    private EditText titleEditText, descEditText;
    private Admin selectedNote;
    private Button delbtn;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_admin__dashboard);
        initWidgets();
        checkforEditnote();
    }
    private void checkforEditnote() {
        Intent previousIntent = getIntent();

        int passnoteid = previousIntent.getIntExtra(Admin.NOTE_EDIT_EXTRA,-1);
        selectedNote = Admin.getNoteforID(passnoteid);

        if(selectedNote != null)
```

```
        {
            titleEditText.setText(selectedNote.getTitle());
            descEditText.setText(selectedNote.getDescription());
        }
        else
        {
            delbtn.setVisibility(View.INVISIBLE);
        }

    }
    private void initWidgets() {
        titleEditText = findViewById(R.id.titletext);
        descEditText = findViewById(R.id.descriptionText);
        delbtn = findViewById(R.id.delbtn);
    }
    public void savenote(View view) {
        SQLiteManager sqLiteManager = SQLiteManager.instanceofDatabase(this);
        String title = String.valueOf(titleEditText.getText());
        String desc = String.valueOf(descEditText.getText());
        if(selectedNote == null) {
            int id = Admin.note1ArrayList.size();
            Admin newNote = new Admin(id, title, desc);
            Admin.note1ArrayList.add(newNote);
            sqLiteManager.addNotetodatabase(newNote);
        }
        else{
            selectedNote.setTitle(title);
            selectedNote.setDescription(desc);
            sqLiteManager.updateNoteInDB(selectedNote);
        }
        finish();
    }
    public void deleteNote(View view) {
        selectedNote.setDeleted(new Date());
        SQLiteManager sqLiteManager = SQLiteManager.instanceofDatabase(this);
        sqLiteManager.updateNoteInDB(selectedNote);
        finish();
    }
}
```

AdminAdapter.java

```
package com.example.mad_project;
import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.TextView;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import java.util.List;
public class AdminAdapter extends ArrayAdapter {
    public AdminAdapter(Context context, List<Admin> notes){
        super(context,0,notes);
    }

    @NonNull
```

```
    @Override
    public View getView(int position, @Nullable View convertView, @NonNull
ViewGroup parent) {
        Admin note = (Admin) getItem(position);
        if(convertView == null)
            convertView =
LayoutInflater.from(getContext()).inflate(R.layout.admin_cell, parent,false);
        TextView title = convertView.findViewById(R.id.celltitle);
        TextView description = convertView.findViewById(R.id.cellDec);
        title.setText(note.getTitle());
        description.setText(note.getDescription());
        return convertView;
    }

}
```

AdminDashbaord.java

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.ListView;
import android.content.Intent;
import android.widget.Toast;

public class AdminDashboard extends AppCompatActivity {
    private ListView notelistview;
    Button logOUT;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_admin_dashboard);

        logOUT=(Button)findViewById(R.id.logout);
        initWidgets();
        loadFromDBToMemory();
        setOnClickListener();
        setNoteAdapter();

    }
    private void setOnClickListener() {
        notelistview.setOnItemClickListener(new AdapterView.OnItemClickListener()
{

            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
position, long id) {
                Admin selectednote = (Admin)
notelistview.getItemAtPosition(position);
                Intent editNoteintent = new Intent(getApplicationContext(),
Admin_Dashboard.class);
                editNoteintent.putExtra(Admin.NOTE_EDIT_EXTRA,
selectednote.getId());
                startActivity(editNoteintent);
```

```
            }
        });
    }
    private void initWidgets() {
        notelistview = findViewById(R.id.notelist);
    }

    private void setNoteAdapter() {
        AdminAdapter noteAdapter = new
AdminAdapter(getApplicationContext(),Admin.nondeetdnotes());
        notelistview.setAdapter(noteAdapter);
    }

    private void loadFromDBToMemory() {
        SQLiteManager sqLiteManager = SQLiteManager.instanceofDatabase(this);
        sqLiteManager.popularNoteListArray();
    }

    public void newmedicine(View view) {
        Intent newnoteIntent = new Intent(this,Admin_Dashboard.class);
        startActivity(newnoteIntent);
    }

    @Override
    protected void onResume() {
        super.onResume();
        setNoteAdapter();
    }

    public void logoutactivity(View view) {
        finish();
        Toast.makeText(AdminDashboard.this,"Log Out Successfull",
Toast.LENGTH_LONG).show();
    }
}
```

MainActivity.java

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.media.Image;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageButton;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    Button LogInButton, RegisterButton ;
    EditText Email, Password ;
    String EmailHolder, PasswordHolder;
    Boolean EditTextEmptyHolder;
```

```java
    SQLiteDatabase sqLiteDatabaseObj;
    SQLITEHelper sqLiteHelper;
    Cursor cursor;
    String TempPassword = "NOT_FOUND" ;
    public static final String UserEmail = "";

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        LogInButton = (Button)findViewById(R.id.buttonLogin);

        RegisterButton = (Button)findViewById(R.id.buttonRegister);

        Email = (EditText)findViewById(R.id.editEmail);
        Password = (EditText)findViewById(R.id.editPassword);

        sqLiteHelper = new SQLITEHelper(this);

        //Adding click listener to log in button.
        LogInButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                // Calling EditText is empty or no method.
                CheckEditTextStatus();

                // Calling login method.
                LoginFunction();


            }
        });

        // Adding click listener to register button.
        RegisterButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                // Opening new user registration activity using intent on button
click.
                Intent intent = new Intent(MainActivity.this,
RegisterActivity.class);
                startActivity(intent);

            }
        });

    }

    // Login function starts from here.
    public void LoginFunction(){

        if(EditTextEmptyHolder) {

            // Opening SQLite database write permission.
            sqLiteDatabaseObj = sqLiteHelper.getWritableDatabase();
```

```java
            // Adding search email query to cursor.
            cursor = sqLiteDatabaseObj.query(SQLITEHelper.TABLE_NAME, null, " " +
SQLITEHelper.Table_Column_2_Email + "=?", new String[]{EmailHolder}, null, null,
null);

            while (cursor.moveToNext()) {

                if (cursor.isFirst()) {

                    cursor.moveToFirst();

                    // Storing Password associated with entered email.
                    TempPassword =
cursor.getString(cursor.getColumnIndex(SQLITEHelper.Table_Column_3_Password));

                    // Closing cursor.
                    cursor.close();
                }
            }

            // Calling method to check final result ..
            CheckFinalResult();

        }
        else {

            //If any of login EditText empty then this block will be executed.
            Toast.makeText(MainActivity.this,"Please Enter UserName or
Password.",Toast.LENGTH_LONG).show();

        }

    }

    // Checking EditText is empty or not.
    public void CheckEditTextStatus(){

        // Getting value from All EditText and storing into String Variables.
        EmailHolder = Email.getText().toString();
        PasswordHolder = Password.getText().toString();

        // Checking EditText is empty or no using TextUtils.
        if( TextUtils.isEmpty(EmailHolder) || TextUtils.isEmpty(PasswordHolder)){

            EditTextEmptyHolder = false ;

        }
        else {

            EditTextEmptyHolder = true ;
        }
    }

    // Checking entered password from SQLite database email associated password.
    public void CheckFinalResult(){

        if(TempPassword.equalsIgnoreCase(PasswordHolder))
        {
            Toast.makeText(MainActivity.this,"Login
```

```
Successfully",Toast.LENGTH_LONG).show();
            // Going to Dashboard activity after login success message.
            Intent intent = new Intent(MainActivity.this, AdminDashboard.class);
            startActivity(intent);
        }
        else {
            Toast.makeText(MainActivity.this,"UserName or Password is Wrong,
Please Try Again.",Toast.LENGTH_LONG).show();
        }
        TempPassword = "NOT_FOUND" ;

    }

}
```

MainActivity2.java

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.opengl.Visibility;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ListView;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    private ListView notelistview;
    private TextView txt;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        initWidgets();
        loadFromDBToMemory();
        setNoteAdapter();
        setOnClickListener();
    }
    private void setOnClickListener() {
        notelistview.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
position, long id) {
                Admin selectednote = (Admin)
notelistview.getItemAtPosition(position);
                Intent editNoteintent = new Intent(getApplicationContext(),
showMedicineName.class);
                editNoteintent.putExtra(Admin.NOTE_EDIT_EXTRA,
selectednote.getId());
                startActivity(editNoteintent);
            }
        });
    }
    private void initWidgets() {
```

```
        notelistview = findViewById(R.id.notelist);
    }

    private void setNoteAdapter() {

        UserAdapter noteAdapter = new
UserAdapter(getApplicationContext(),Admin.nondeetdnotes());
        notelistview.setAdapter(noteAdapter);
    }
    private void loadFromDBToMemory() {
        SQLiteManager sqLiteManager = SQLiteManager.instanceofDatabase(this);
        sqLiteManager.popularNoteListArray_user();
    }
}
```

RegisterActivity.java

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;

public class RegisterActivity extends AppCompatActivity {
    EditText Email, Password, Name ;
    Button Register;
    String NameHolder, EmailHolder, PasswordHolder;
    Boolean EditTextEmptyHolder;
    SQLiteDatabase sqLiteDatabaseObj;
    String SQLiteDataBaseQueryHolder ;
    SQLITEHelper sqLiteHelper;
    Cursor cursor;
    String F_Result = "Not_Found";

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register);

        Register = (Button)findViewById(R.id.buttonRegister);

        Email = (EditText)findViewById(R.id.editEmail);
        Password = (EditText)findViewById(R.id.editPassword);
        Name = (EditText)findViewById(R.id.editName);

        sqLiteHelper = new SQLITEHelper(this);

        // Adding click listener to register button.
        Register.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
```

```java
            // Creating SQLite database if dose n't exists
            SQLiteDataBaseBuild();

            // Creating SQLite table if dose n't exists.
            SQLiteTableBuild();

            // Checking EditText is empty or Not.
            CheckEditTextStatus();

            // Method to check Email is already exists or not.
            CheckingEmailAlreadyExistsOrNot();

            // Empty EditText After done inserting process.
            EmptyEditTextAfterDataInsert();


        }
    });

}

// SQLite database build method.
public void SQLiteDataBaseBuild(){

    sqLiteDatabaseObj = openOrCreateDatabase(SQLITEHelper.DATABASE_NAME,
Context.MODE_PRIVATE, null);

}

// SQLite table build method.
public void SQLiteTableBuild() {

    sqLiteDatabaseObj.execSQL("CREATE TABLE IF NOT EXISTS " +
SQLITEHelper.TABLE_NAME + "(" + SQLITEHelper.Table_Column_ID + " PRIMARY KEY
AUTOINCREMENT NOT NULL, " + SQLITEHelper.Table_Column_1_Name + " VARCHAR, " +
SQLITEHelper.Table_Column_2_Email + " VARCHAR, " +
SQLITEHelper.Table_Column_3_Password + " VARCHAR);");

}

// Insert data into SQLite database method.
public void InsertDataIntoSQLiteDatabase(){

    // If editText is not empty then this block will executed.
    if(EditTextEmptyHolder == true)
    {

        // SQLite query to insert data into table.
        SQLiteDataBaseQueryHolder = "INSERT INTO "+SQLITEHelper.TABLE_NAME+"
(name,email,password) VALUES('"+NameHolder+"', '"+EmailHolder+"',
'"+PasswordHolder+"');";

        // Executing query.
        sqLiteDatabaseObj.execSQL(SQLiteDataBaseQueryHolder);

        // Closing SQLite database object.
        sqLiteDatabaseObj.close();

        // Printing toast message after done inserting.
```

```java
            Toast.makeText(RegisterActivity.this,"User Registered Successfully",
Toast.LENGTH_LONG).show();

        }
        // This block will execute if any of the registration EditText is empty.
        else {

            // Printing toast message if any of EditText is empty.
            Toast.makeText(RegisterActivity.this,"Please Fill All The Required
Fields.", Toast.LENGTH_LONG).show();

        }

    }

    // Empty edittext after done inserting process method.
    public void EmptyEditTextAfterDataInsert(){

        Name.getText().clear();

        Email.getText().clear();

        Password.getText().clear();

    }

    // Method to check EditText is empty or Not.
    public void CheckEditTextStatus(){

        // Getting value from All EditText and storing into String Variables.
        NameHolder = Name.getText().toString() ;
        EmailHolder = Email.getText().toString();
        PasswordHolder = Password.getText().toString();

        if(TextUtils.isEmpty(NameHolder) || TextUtils.isEmpty(EmailHolder) ||
TextUtils.isEmpty(PasswordHolder)){

            EditTextEmptyHolder = false ;

        }
        else {

            EditTextEmptyHolder = true ;
        }
    }

    // Checking Email is already exists or not.
    public void CheckingEmailAlreadyExistsOrNot(){

        // Opening SQLite database write permission.
        sqLiteDatabaseObj = sqLiteHelper.getWritableDatabase();

        // Adding search email query to cursor.
        cursor = sqLiteDatabaseObj.query(SQLITEHelper.TABLE_NAME, null, " " +
SQLITEHelper.Table_Column_2_Email + "=?", new String[]{EmailHolder}, null, null,
null);

        while (cursor.moveToNext()) {
```

```java
            if (cursor.isFirst()) {

                cursor.moveToFirst();

                // If Email is already exists then Result variable value set as
Email Found.
                F_Result = "Email Found";

                // Closing cursor.
                cursor.close();
            }
        }

        // Calling method to check final result and insert data into SQLite
database.
        CheckFinalResult();

    }


    // Checking result
    public void CheckFinalResult(){

        // Checking whether email is already exists or not.
        if(F_Result.equalsIgnoreCase("Email Found"))
        {

            // If email is exists then toast msg will display.
            Toast.makeText(RegisterActivity.this,"Email Already
Exists",Toast.LENGTH_LONG).show();

        }
        else {

            // If email already dose n't exists then user registration details
will entered to SQLite database.
            InsertDataIntoSQLiteDatabase();

        }

        F_Result = "Not_Found" ;

    }
}
```

showMedicineName.java:

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;

public class showMedicineName extends AppCompatActivity {
    private EditText titleEditText, descEditText;
```

```java
    private Admin selectedNote;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_show_medicine_name);
        initWidgets();
        checkforEditnote();
    }
    private void checkforEditnote() {
        Intent previousIntent = getIntent();
        int passnoteid = previousIntent.getIntExtra(Admin.NOTE_EDIT_EXTRA,-1);
        selectedNote = Admin.getNoteforID(passnoteid);

        if(selectedNote != null)
        {
            titleEditText.setText(selectedNote.getTitle());
            descEditText.setText(selectedNote.getDescription());
        }
    }
    private void initWidgets() {
        titleEditText = findViewById(R.id.titletext);
        descEditText = findViewById(R.id.descriptionText);

    }
}
```

SQLITEhelper.java:

```java
package com.example.mad_project;
import android.content.Context;
import android.database.sqlite.SQLiteOpenHelper;
import android.database.sqlite.SQLiteDatabase;

import androidx.annotation.Nullable;

public class SQLITEHelper extends SQLiteOpenHelper {
    static String DATABASE_NAME="UserDataBase";

    public static final String TABLE_NAME="UserTable";

    public static final String Table_Column_ID="id";

    public static final String Table_Column_1_Name="name";

    public static final String Table_Column_2_Email="email";

    public static final String Table_Column_3_Password="password";

    public SQLITEHelper(Context context) {

        super(context, DATABASE_NAME, null, 1);

    }


    @Override
    public void onCreate(SQLiteDatabase database) {
```

```
        String CREATE_TABLE="CREATE TABLE IF NOT EXISTS "+TABLE_NAME+"
("+Table_Column_ID+" INTEGER PRIMARY KEY, "+Table_Column_1_Name+" VARCHAR,
"+Table_Column_2_Email+" VARCHAR, "+Table_Column_3_Password+" VARCHAR)";
        database.execSQL(CREATE_TABLE);

    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS "+TABLE_NAME);
        onCreate(db);

    }
}
```

SQLiteManager.java

```java
package com.example.mad_project;
import android.annotation.SuppressLint;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import java.text.DateFormat;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
public class SQLiteManager extends SQLiteOpenHelper{
    private static SQLiteManager sqLiteManager;
    private static final String DATABASE_NAME = "NoteDB";
    private static final int DATABASE_VERSION = 1;
    private static final String TABLE_NAME = "Note";
    private static final String COUNTER = "Counter";

    private static final String ID_FIELD = "id";
    private static final String TITLE_FIELD = "title";
    private static final String DESC_FIELD = "desc";
    private static final String DELETED_FIELD = "deleted";

    @SuppressLint("SimpleDateFormat")
    private static final DateFormat dateFormat = new SimpleDateFormat("MM-dd-yyyy
HH:mm:ss");

    public SQLiteManager(Context context) {
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    public static SQLiteManager instanceofDatabase(Context context){
        if(sqLiteManager == null)
            sqLiteManager = new SQLiteManager(context);

        return sqLiteManager;
    }
    @Override
    public void onCreate(SQLiteDatabase sqLiteDatabase) {
        StringBuilder sql;
        sql = new StringBuilder()
```

```java
                .append("Create Table ")
                .append(TABLE_NAME)
                .append("(")
                .append(COUNTER)
                .append(" Key, ")
                .append(ID_FIELD)
                .append(" INT, ")
                .append(TITLE_FIELD)
                .append(" TEXT, ")
                .append(DESC_FIELD)
                .append(" TEXT, ")
                .append(DELETED_FIELD)
                .append(" TEXT)");
        sqLiteDatabase.execSQL(sql.toString());
    }
    @Override
    public void onUpgrade(SQLiteDatabase sqLiteDatabase, int oldVersion, int
newVersion) {
//        switch (oldVersion)
//        {
//            case 1:
//                sqLiteDatabase.execSQL("ALTER TABLE " + TABLE_NAME + " ADD
COLUMN " + NEW_COLUMN + "TEXT");
//            case 2:
//                sqLiteDatabase.execSQL("ALTER TABLE " + TABLE_NAME + " ADD
COLUMN " + NEW_COLUMN + "TEXT");
//        }
    }
    public void addNotetodatabase(Admin note1)
    {
        SQLiteDatabase sqLiteDatabase = this.getWritableDatabase();

        ContentValues contentValues = new ContentValues();
        contentValues.put(ID_FIELD, note1.getId());
        contentValues.put(TITLE_FIELD, note1.getTitle());
        contentValues.put(DESC_FIELD, note1.getDescription());
        contentValues.put(DELETED_FIELD, getStringFormatDate(note1.getDeleted()));

        sqLiteDatabase.insert(TABLE_NAME,null,contentValues);
    }

    public void popularNoteListArray()
    {
        SQLiteDatabase sqLiteDatabase = this.getReadableDatabase();
        try(Cursor result = sqLiteDatabase.rawQuery("SELECT * FROM " +
TABLE_NAME,null))
        {
            if(result.getCount()!=0)
            {
                while (result.moveToNext())
                {
                    int id = result.getInt(1);
                    String title = result.getString(2);
                    String desc = result.getString(3);
                    String stringdeleted = result.getString(4);
                    Date deleted = getDateFromString(stringdeleted);
                    Admin note1 = new Admin(id,title,desc,deleted);
                    note1.note1ArrayList.add(note1);
                }
```

```java
            }
        }
    }
    public void popularNoteListArray_user()
    {
        SQLiteDatabase sqLiteDatabase = this.getReadableDatabase();
        try(Cursor result = sqLiteDatabase.rawQuery("SELECT * FROM " +
TABLE_NAME,null))
        {
            if(result.getCount()!=0)
            {
                while (result.moveToNext())
                {
                    int id = result.getInt(1);
                    String title = result.getString(2);
                    String desc = result.getString(3);
                    Admin note1 = new Admin(id,title,desc);
                    note1.note1ArrayList.add(note1);
                }
            }
        }
    }
    public void updateNoteInDB(Admin note1)
    {
        SQLiteDatabase sqLiteDatabase = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(ID_FIELD, note1.getId());
        contentValues.put(TITLE_FIELD, note1.getTitle());
        contentValues.put(DESC_FIELD, note1.getDescription());
        contentValues.put(DELETED_FIELD, getStringFormatDate(note1.getDeleted()));
        sqLiteDatabase.update(TABLE_NAME, contentValues, ID_FIELD+ "=?",new
String[]{String.valueOf(note1.getId())});
    }

    private String getStringFormatDate(Date date)
    {
        if(date == null)
            return null;
        return dateFormat.format(date);
    }
    private Date getDateFromString(String string)
    {
        try{
            return dateFormat.parse(string);
        }catch (ParseException | NullPointerException e)
        {
            return null;
        }
    }
}
```

Startactivity.java

```java
package com.example.mad_project;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
```

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```java
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;

public class Startactivity extends AppCompatActivity {
    ImageButton btn1, btn2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_startactivity);

        btn1 = (ImageButton)findViewById(R.id.buttonuser);
        btn2 = (ImageButton)findViewById(R.id.admin);

        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i = new Intent(Startactivity.this,MainActivity2.class);
                startActivity(i);
            }
        });

        btn2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i = new Intent(Startactivity.this,MainActivity.class);
                startActivity(i);
            }
        });

    }
}
```

UserAdapter.java

```java
package com.example.mad_project;
import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.TextView;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import java.util.List;
public class UserAdapter extends ArrayAdapter {

    public UserAdapter(Context context, List<Admin> notes){
        super(context,0,notes);
    }

    @NonNull
    @Override
    public View getView(int position, @Nullable View convertView, @NonNull
ViewGroup parent) {
        Admin note = (Admin) getItem(position);
        if(convertView == null)
            convertView =
```
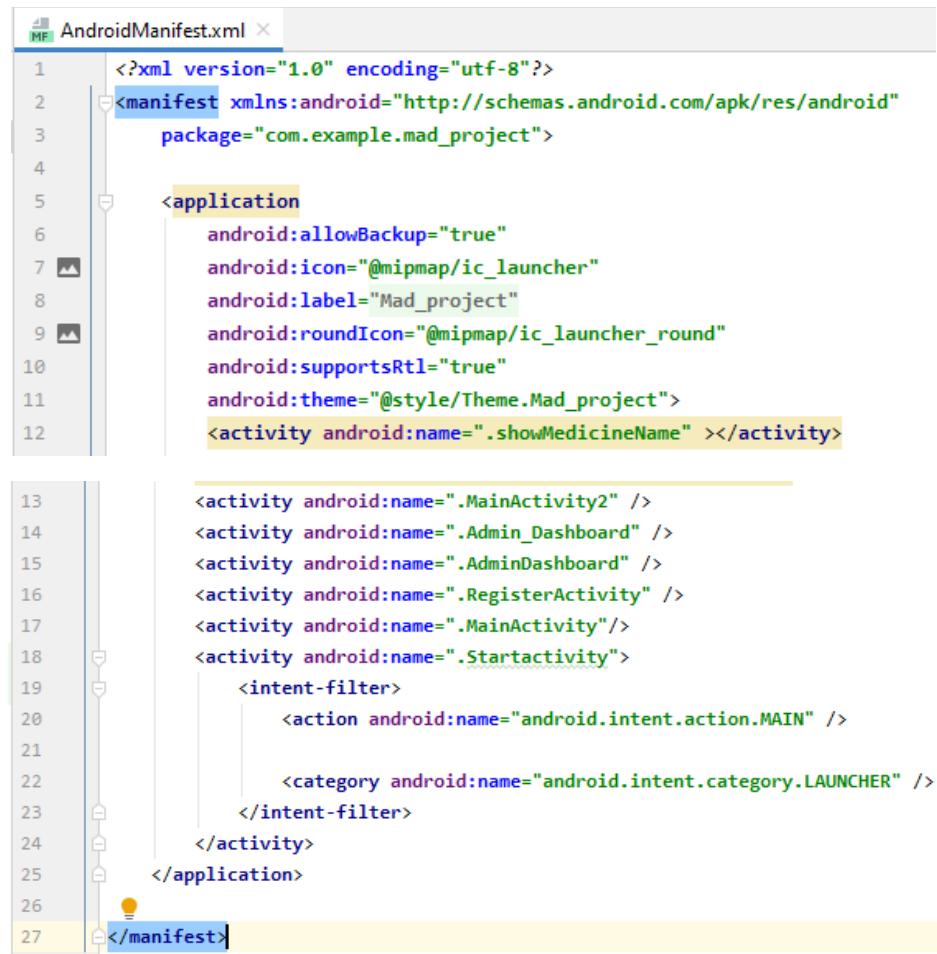
```
LayoutInflater.from(getContext()).inflate(R.layout.user_cell, parent,false);
        TextView title = convertView.findViewById(R.id.celltitleUSER);
        TextView description = convertView.findViewById(R.id.cellDecUSER);
        title.setText(note.getTitle());
        title.setVisibility(View.INVISIBLE);
        description.setText(note.getDescription());
        return convertView;
    }

  }
```

Android Manifest:


```xml
AndroidManifest.xml ×
1    <?xml version="1.0" encoding="utf-8"?>
2    <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3        package="com.example.mad_project">
4
5        <application
6            android:allowBackup="true"
7            android:icon="@mipmap/ic_launcher"
8            android:label="Mad_project"
9            android:roundIcon="@mipmap/ic_launcher_round"
10           android:supportsRtl="true"
11           android:theme="@style/Theme.Mad_project">
12           <activity android:name=".showMedicineName" ></activity>

13           <activity android:name=".MainActivity2" />
14           <activity android:name=".Admin_Dashboard" />
15           <activity android:name=".AdminDashboard" />
16           <activity android:name=".RegisterActivity" />
17           <activity android:name=".MainActivity"/>
18           <activity android:name=".Startactivity">
19               <intent-filter>
20                   <action android:name="android.intent.action.MAIN" />
21
22                   <category android:name="android.intent.category.LAUNCHER" />
23               </intent-filter>
24           </activity>
25       </application>
26
27   </manifest>
```

Semester Project

Files:

Android ▾

▾ **app**
  ▾ 📁 manifests
    AndroidManifest.xml
  ▾ 📁 java
    ▾ 📁 com.example.mad_project
      Ⓒ Admin
      Ⓒ Admin_Dashboard
      Ⓒ AdminAdapter
      Ⓒ AdminDashboard
      Ⓒ MainActivity
      Ⓒ MainActivity2
      Ⓒ RegisterActivity
      Ⓒ showMedicineName
      Ⓒ SQLITEHelper
      Ⓒ SQLiteManager
      Ⓒ Startactivity
      Ⓒ UserAdapter
    ▸ 📁 com.example.mad_project (androidTest)
    ▸ 📁 com.example.mad_project (test)
  ▸ 📁 java (generated)
  ▾ 📁 res
    ▾ 📁 drawable
      admin.png
      healthcare.png
      ic_launcher_background.xml
      ic_launcher_foreground.xml (v24)
      images.png
    ▾ 📁 layout
      activity_admin__dashboard.xml
      activity_admin_dashboard.xml
      activity_main.xml
      activity_main2.xml
      activity_register.xml
      activity_show_medicine_name.xml
      activity_startactivity.xml
      admin_cell.xml
      user_cell.xml
    ▸ 📁 mipmap
    ▸ 📁 values
    📁 res (generated)
  ▸ 🐘 Gradle Scripts