Develop an application that uses GUI

XML Code:

Activity_details.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout 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:background="#F3EDED"
    tools:context=".Details">
    <TextView
        android:gravity="center"
        android:padding="15dip"
        android:text="Patient Details"
        android:textColor="@android:color/black"
        android:textSize="20sp"
        android:textStyle="bold"
        app:fontFamily="sans-serif" />
    <TableRow>
        <TextView
            android:layout column="1"
            android:padding="15dip"
            android:text="Name: "
            android:textColor="@android:color/black" />
        <TextView
            android:id="@+id/name"
            android:gravity="right" />
    </TableRow>
    <TableRow>
        <TextView
            android:layout column="1"
            android:padding="15dip"
            android:text="Address: "
            android:textColor="@android:color/black" />
        <TextView
            android:id="@+id/address"
            android:gravity="right" />
    </TableRow>
    <TableRow>
        <TextView
            android:layout column="1"
            android:padding="15dip"
            android:text="DOB: "
```

```
android:textColor="@android:color/black" />
    <TextView
        android:id="@+id/dob"
        android:gravity="right" />
</TableRow>
<TableRow>
    <TextView
        android:layout column="1"
        android:padding="15dip"
        android:text="Gender: "
        android:textColor="@android:color/black" />
    <TextView
        android:id="@+id/gender"
        android:gravity="right" />
</TableRow>
<TableRow>
    <TextView
        android:layout column="1"
        android:padding="15dip"
        android:text="Marital Status: "
        android:textColor="@android:color/black" />
    <TextView
        android:id="@+id/married"
        android:gravity="right" />
</TableRow>
<TableRow>
    <TextView
        android:layout column="1"
        android:padding="15dip"
        android:text="Phone: "
        android:textColor="@android:color/black" />
    <TextView
        android:id="@+id/phone"
        android:gravity="right" />
</TableRow>
<TableRow>
    <TextView
        android:layout column="1"
        android:padding="15dip"
        android:text="Time: "
        android:textColor="@android:color/black" />
    <TextView
        android:id="@+id/time"
        android:gravity="right" />
</TableRow>
<TableRow>
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    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:background="#F3EDED"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView2"
        android:layout width="match parent"
        android:layout_height="wrap_content"
        android:layout margin="100px"
        android:gravity="center"
        android:text="New Patient Registration"
        android:textColor="@android:color/black"
        android:textSize="20sp"
        android:textStyle="bold"
        android:typeface="serif"
        app:fontFamily="sans-serif" />
    <ScrollView
        android:layout width="match parent"
        android:layout height="match parent">
        <LinearLayout
            android:layout width="match parent"
            android:layout height="wrap content"
            android:orientation="vertical">
            <LinearLayout
                android:layout width="match parent"
                android: layout height="wrap content"
                android:orientation="horizontal">
                <TextView
                    android:id="@+id/textView4"
                    android:layout width="wrap content"
                    android:layout height="wrap content"
                    android:layout_marginLeft="200px"
                    android:text="Name:"
                    android:textColor="@android:color/black"
```

```
android:textSize="15dp" />
    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20px"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=""
        android:textColor="@android:color/black"
        android:textSize="15dp" />
</LinearLayout>
<LinearLayout
    android:layout width="match parent"
    android:layout height="wrap content"
    android:orientation="horizontal">
    <TextView
        android:id="@+id/textView5"
        android:layout width="wrap content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="160px"
        android:text="Address:"
        android:textColor="@android:color/black"
        android:textSize="15dp" />
    <EditText
        android:id="@+id/editText3"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout_marginLeft="20px"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=""
        android:textColor="@android:color/black"
        android:textSize="15dp" />
</LinearLayout>
<TextView
    android:id="@+id/textView7"
    android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout marginLeft="420px"
   android:layout marginTop="80px"
   android:text="Date of Birth"
    android:textColor="@android:color/black"
    android:textSize="15dp" />
<DatePicker
    android:id="@+id/simpleDatePicker"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="90px"
    android:layout_marginTop="20px"
    android:datePickerMode="calendar"
    android:isScrollContainer="true" />
<LinearLayout
```

```
android:layout width="match parent"
   android:layout height="150dp"
   android:orientation="horizontal">
   <TextView
        android:id="@+id/textView8"
        android:layout_width="wrap_content"
        android: layout height="wrap content"
        android:layout marginLeft="180px"
        android:layout marginTop="90px"
        android:text="Gender:"
        android:textColor="@android:color/black"
        android:textSize="15dp" />
    <RadioGroup
        android:id="@+id/RadioGroup"
        android: layout width="match parent"
        android:layout height="wrap content">
        <RadioButton
            android:id="@+id/RadioButton1"
            android:layout width="92dp"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20px"
            android:layout marginTop="80px"
            android:text="Male"
            android:textColor="@android:color/black"
            android:textSize="15dp" />
        <RadioButton
            android:id="@+id/RadioButton2"
            android:layout width="92dp"
            android:layout height="wrap content"
            android:layout marginLeft="20px"
            android:layout marginTop="30px"
            android:text="Female"
            android:textColor="@android:color/black"
            android:textSize="15dp" />
        <RadioButton
            android:id="@+id/RadioButton3"
            android:layout width="91dp"
            android: layout height="wrap content"
            android:layout marginLeft="20px"
            android:layout marginTop="30px"
            android:text="Other"
            android:textSize="15dp" />
    </RadioGroup>
</LinearLayout>
<LinearLayout
   android:layout width="match parent"
   android:layout height="66dp"
   android:orientation="horizontal">
   <TextView
        android:id="@+id/textView9"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginLeft="80px"
```

```
android:layout marginTop="80px"
        android:text="Marital Status:"
        android:textColor="@android:color/black"
        android:textSize="15dp" />
    <Spinner
        android:id="@+id/spinner"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginTop="80px"
        android:entries="@array/marital status" />
</LinearLayout>
<LinearLayout
    android:layout width="match parent"
    android:layout height="wrap content"
    android:orientation="horizontal">
    <TextView
        android:id="@+id/textView10"
        android:layout width="wrap content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="80px"
        android:layout marginTop="50px"
        android:text="Phone Number:"
        android:textColor="@android:color/black"
        android:textSize="15dp" />
    <EditText
        android:id="@+id/editText6"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginLeft="20px"
        android:layout marginTop="50px"
        android:layout weight="1"
        android:ems="10"
        android:inputType="phone" />
</LinearLayout>
<LinearLayout
    android:layout width="match parent"
    android:layout height="75dp"
    android:orientation="horizontal">
    <TextView
        android:id="@+id/textView11"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout_marginLeft="50px"
        android:layout marginTop="80px"
        android:text="Registration Time:"
        android:textColor="@android:color/black"
        android:textSize="15dp" />
    <TimePicker
        android:id="@+id/timePicker"
        android:layout_width="wrap_content"
android:layout_height="wrap_content"
        android:timePickerMode="spinner" />
</LinearLayout>
```

```
<LinearLayout
                android:layout_width="match_parent"
android:layout_height="58dp"
                android:orientation="horizontal">
                <TextView
                    android:id="@+id/textView12"
                    android:layout width="wrap content"
                    android:layout_height="wrap_content"
                    android:layout marginLeft="190px"
                    android:layout_marginTop="20px"
                    android:text="Addiction:"
                    android:textColor="@android:color/black"
                    android:textSize="15dp" />
                <CheckBox
                    android:id="@+id/simpleCheckBox1"
                    android:layout width="wrap content"
                    android:layout_height="wrap_content"
                    android:layout_marginLeft="20px"
                    android:layout_marginTop="20px"
                    android:text="Smoking" />
                <CheckBox
                    android:id="@+id/simpleCheckBox2"
                    android:layout width="wrap content"
                    android: layout height="wrap content"
                    android:layout_marginLeft="20px"
                    android:layout marginTop="20px"
                    android:text="Alcohol" />
            </LinearLayout>
            <LinearLayout
                android:layout width="match parent"
                android:layout height="58dp"
                android:orientation="horizontal">
                <Button
                    android:id="@+id/submitButton"
                    android:layout width="wrap content"
                    android:layout height="wrap content"
                    android:layout marginLeft="200px"
                    android:text="Submit" />
                <Button
                    android:id="@+id/resetButton"
                    android:layout width="wrap content"
                    android:layout height="wrap content"
                    android:layout_marginLeft="200px"
                    android:text="Reset" />
            </LinearLayout>
        </LinearLayout>
    </ScrollView>
</LinearLayout>
```

JAVA CODE:

MainActivity.java

```
package com.example.healthregister;
import androidx.annotation.RequiresApi;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.NotificationCompat;
import android.app.NotificationChannel;
import android.app.NotificationManager;
import android.app.PendingIntent;
import android.content.Context;
import android.content.Intent;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Spinner;
import android.widget.TimePicker;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
    Details details = new Details();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        Spinner spinner = (Spinner) findViewById(R.id.spinner);
        ArrayAdapter<CharSequence> adapter =
ArrayAdapter.createFromResource(this, R.array.marital status,
android.R.layout.simple spinner item);
adapter.setDropDownViewResource(android.R.layout.simple spinner item);
        spinner.setAdapter(adapter);
        Button button = (Button) findViewById(R.id.submitButton);
        button.setOnClickListener(new OnClickListener() {
            @RequiresApi(api = Build.VERSION CODES.M)
            @Override
            public void onClick(View v) {
                EditText e1 = (EditText) findViewById(R.id.editText2);
                details.name = e1.getText().toString();
                EditText e2 = (EditText) findViewById((R.id.editText3));
                details.address = e2.getText().toString();
```

```
DatePicker d = (DatePicker)
findViewById((R.id.simpleDatePicker));
                Integer day = (Integer) d.getDayOfMonth();
                Integer month = (Integer) (d.getMonth() + 1);
                Integer year = (Integer) d.getYear();
                details.dob = day.toString() + "/" + month.toString() + "/"
+ year.toString();
                RadioGroup r = (RadioGroup) findViewById(R.id.RadioGroup);
                Integer rid = (Integer)r.getCheckedRadioButtonId();
                RadioButton r1 = (RadioButton) findViewById(rid);
                details.gender = r1.getText().toString();
                final Spinner s = (Spinner) findViewById(R.id.spinner);
                String text = s.getSelectedItem().toString();
                details.marital = text;
                EditText e4 = (EditText) findViewById((R.id.editText6));
                details.phone = e4.getText().toString();
                TimePicker t = (TimePicker) findViewById(R.id.timePicker);
                Integer hour = (Integer) t.getHour();
                Integer min = (Integer) t.getMinute();
                details.time = hour.toString() + ":" + min.toString();
                CheckBox c1 = (CheckBox)
findViewById(R.id.simpleCheckBox1);
                int flag = 0;
                String t1 = "";
                if(c1.isChecked())
                    t1 = c1.getText().toString();
                else
                    flag++;
                CheckBox c2 = (CheckBox)
findViewById(R.id.simpleCheckBox2);
                String t2 = "";
                if(c2.isChecked())
                    t2 = c2.getText().toString();
                    flag++;
                if(flaq != 2)
                    details.addiction = t1 + " " + t2;
                else
                    details.addiction = "None";
                NotificationCompat.Builder builder =
NotificationCompat.Builder(getApplicationContext(), "notify channel")
                                .setSmallIcon(R.mipmap.ic launcher round)
                                .setContentTitle("Health Register
Submission")
                                .setContentText("You've successfully
registered. Tap for more.")
                                .setAutoCancel(true)
.setPriority(NotificationCompat.PRIORITY DEFAULT);
                Intent notificationIntent = new
Intent(getApplicationContext(), Details.class);
```

```
notificationIntent.addFlags(Intent.FLAG ACTIVITY CLEAR TOP);
                notificationIntent.putExtra("Details", details);
                PendingIntent pendingIntent =
{\tt PendingIntent.getActivity(getApplicationContext(),\ 0,\ notificationIntent,}
                        PendingIntent.FLAG UPDATE CURRENT);
                builder.setContentIntent(pendingIntent);
                NotificationManager manager =
(NotificationManager) getSystemService (Context.NOTIFICATION SERVICE);
                if (Build.VERSION.SDK INT >= Build.VERSION CODES.O)
                    String channelId = "notify_channel";
                    NotificationChannel channel = new NotificationChannel(
                            channelId,
                            "Notification channel",
                            NotificationManager.IMPORTANCE HIGH);
                    manager.createNotificationChannel(channel);
                    builder.setChannelId(channelId);
                }
                manager.notify(0, builder.build());
                Context context = getApplicationContext();
                Intent intent = new Intent(context, Details.class);
                intent.putExtra("Details", details);
                startActivity(intent);
            }
        });
        Button rbutton = (Button) findViewById(R.id.resetButton);
        rbutton.setOnClickListener(new OnClickListener() {
            @RequiresApi(api = Build.VERSION CODES.M)
            @Override
            public void onClick(View v) {
                EditText e1 = (EditText) findViewById(R.id.editText2);
                EditText e2 = (EditText) findViewById(R.id.editText3);
                DatePicker d = (DatePicker)
findViewById((R.id.simpleDatePicker));
                RadioGroup r = (RadioGroup) findViewById(R.id.RadioGroup);
                final Spinner s = (Spinner) findViewById(R.id.spinner);
                EditText e4 = (EditText) findViewById((R.id.editText6));
                TimePicker t = (TimePicker) findViewById(R.id.timePicker);
                CheckBox c1 = (CheckBox)
findViewById(R.id.simpleCheckBox1);
                CheckBox c2 = (CheckBox)
findViewById(R.id.simpleCheckBox2);
                e1.setText("");
                e2.setText("");
                Calendar calendar = Calendar.getInstance();
                d.updateDate(calendar.get(Calendar.YEAR),
calendar.get(Calendar.MONTH), calendar.get(Calendar.DATE));
                r.clearCheck();
                e4.setText("");
                t.setHour(calendar.get(Calendar.HOUR OF DAY));
                t.setMinute(calendar.get(Calendar.MINUTE));
                if(c1.isChecked())
                    c1.toggle();
                if(c2.isChecked())
                    c2.toggle();
        });
```

```
}
```

Details.java

```
package com.example.healthregister;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;
import java.io.Serializable;
public class Details extends AppCompatActivity implements Serializable {
    String name, address, age, phone, gender, marital, addiction, dob,
time;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity details);
        Intent intent = getIntent();
        Details details = (Details)intent.getSerializableExtra("Details");
        TextView t1 = (TextView) findViewById(R.id.name);
        t1.setText(details.name);
        TextView t2 = (TextView) findViewById(R.id.address);
        t2.setText(details.address);
        TextView t4 = (TextView) findViewById(R.id.dob);
        t4.setText(details.dob);
        TextView t5 = (TextView) findViewById(R.id.gender);
        t5.setText(details.gender);
        TextView t6 = (TextView) findViewById(R.id.married);
        t6.setText(details.marital);
        TextView t7 = (TextView) findViewById(R.id.phone);
        t7.setText(details.phone);
        TextView t8 = (TextView) findViewById(R.id.time);
        t8.setText(details.time);
        TextView t9 = (TextView) findViewById(R.id.addiction);
        t9.setText(details.addiction);
    }
}
```