

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>
```

```
<TextView
    android:layout_column="1"
    android:padding="15dip"
    android:text="Addiction: "
    android:textColor="@android:color/black" />

<TextView
    android:id="@+id/addiction"
    android:gravity="right" />
</TableRow>

</TableLayout>
```

Activity_main.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: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();
        else
            flag++;

        if(flag != 2)
            details.addiction = t1 + " " + t2;
        else
            details.addiction = "None";

        NotificationCompat.Builder builder =
            new
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 =
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);  
    }  
}
```