

Exercise 1 - Designing Health Insurance Form using GUI Components

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CSE-A

Aim

Generate a Health Insurance registration form to register the patient details under each group.

Patient Details - Title, Patient Name, Patient Phone Number (Mobile or Landline use Checkbox), Address, Age, DOB, Gender, Marital Status

Employer Details - Patient Employer, Employment Status (full time, parttime, unemployed, retired, student, other Checkbox)

Emergency contact Details - Name, Relationship, Address, Phone Number

Use Submit (Button) to submit the details and display the contents. Use Reset button to clear the form. Display using Table layout.

Code

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView 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">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginLeft="16dp"
```

```
android:layout_marginRight="16dp"
android:layout_marginBottom="8dp"
android:orientation="vertical"
tools:context=".MainActivity">

<TextView
    android:id="@+id/titleTextView"
    android:layout_width="match_parent"
    android:layout_height="128dp"
    android:gravity="center"
    android:text="Health Insurance Registration"
    android:textSize="32sp"
    android:textStyle="bold"
    android:typeface="serif" />

<TextView
    android:id="@+id/title"
    android:layout_width="match_parent"
    android:layout_height="32dp"
    android:gravity="left"
    android:text="Patient Details"
    android:textSize="22sp"
    android:textStyle="bold"
    android:typeface="serif" />

<TextView
    android:id="@+id/name"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Name"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />

<EditText
    android:id="@+id/editName"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Name:"
    android:inputType="text"
```

```
        android:textColor="#0000FF"
        android:typeface="sans" />

<TextView
    android:id="@+id/number"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Number"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />

<RadioGroup
    android:id="@+id/radio_group_id"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="4dp">

    <RadioButton
        android:id="@+id/phone_radio_button_id"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Phone" />

    <RadioButton
        android:id="@+id/landline_radio_button_id"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Landline" />
</RadioGroup>

<EditText
    android:id="@+id/editNumber"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Number:"
    android:inputType="phone" />

<TextView
    android:id="@+id/address"
```

```
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Address"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />
```

```
<EditText
```

```
    android:id="@+id/editAddress"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Address:"
    android:inputType="text"
    android:textColor="#0000FF"
    android:typeface="sans" />
```

```
<TextView
```

```
    android:id="@+id/age"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Age"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />
```

```
<EditText
```

```
    android:id="@+id/editAge"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Age:"
    android:inputType="number"
    android:textColor="#0000FF"
    android:typeface="sans" />
```

```
<TextView
```

```
    android:id="@+id/dob"
    android:layout_width="match_parent"
    android:layout_height="26dp"
```

```
        android:layout_marginTop="16dp"
        android:gravity="left"
        android:text="DOB"
        android:textSize="18sp"
        android:textStyle="bold"
        android:typeface="normal" />
```

```
<DatePicker
```

```
    android:id="@+id/dobPicker"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center" />
```

```
<TextView
```

```
    android:id="@+id/gender"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Gender"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />
```

```
<RadioGroup
```

```
    android:id="@+id/gender_group"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="4dp">
```

```
    <RadioButton
```

```
        android:id="@+id/male"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Male" />
```

```
    <RadioButton
```

```
        android:id="@+id/female"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Female" />
```

```
</RadioGroup>
```

```
<TextView
    android:id="@+id/marital_status"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Marital Status"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />

<Spinner
    android:id="@+id/marital_status_spinner"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:entries="@array/marital_status_options" />

<TextView
    android:id="@+id/employer"
    android:layout_width="match_parent"
    android:layout_height="32dp"
    android:layout_marginTop="48dp"
    android:gravity="left"
    android:text="Employer Details"
    android:textSize="22sp"
    android:textStyle="bold"
    android:typeface="serif" />

<TextView
    android:id="@+id/employer_name"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Employer Name"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />

<EditText
    android:id="@+id/editEmployerName"
```

```
        android:layout_width="match_parent"
        android:layout_height="54dp"
        android:hint="Employer Name:"
        android:inputType="text"
        android:textColor="#0000FF"
        android:typeface="sans" />
```

<TextView

```
        android:id="@+id/employment_status"
        android:layout_width="match_parent"
        android:layout_height="26dp"
        android:layout_marginTop="16dp"
        android:gravity="left"
        android:text="Employment Status"
        android:textSize="18sp"
        android:textStyle="bold"
        android:typeface="normal" />
```

<Spinner

```
        android:id="@+id/employment_status_spinner"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:entries="@array/employment_status_options" />
```

<TextView

```
        android:id="@+id/emergency"
        android:layout_width="match_parent"
        android:layout_height="32dp"
        android:layout_marginTop="48dp"
        android:gravity="left"
        android:text="Emergency Details"
        android:textSize="22sp"
        android:textStyle="bold"
        android:typeface="serif" />
```

<TextView

```
        android:id="@+id/emergency_name"
        android:layout_width="match_parent"
        android:layout_height="26dp"
        android:layout_marginTop="16dp"
        android:gravity="left"
        android:text="Emergency Contact Name"
```

```
        android:textSize="18sp"
        android:textStyle="bold"
        android:typeface="normal" />
```

```
<EditText
    android:id="@+id/edit_emergency_name"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Employer Contact Name:"
    android:inputType="text"
    android:textColor="#0000FF"
    android:typeface="sans" />
```

```
<TextView
    android:id="@+id/emergency_relationship"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Relationship"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />
```

```
<EditText
    android:id="@+id/edit_emergency_relationship"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Relationship:"
    android:inputType="text"
    android:textColor="#0000FF"
    android:typeface="sans" />
```

```
<TextView
    android:id="@+id/emergency_address"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Address"
    android:textSize="18sp"
    android:textStyle="bold"
```



```
        android:typeface="normal" />

<EditText
    android:id="@+id/edit_emergency_address"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Address:"
    android:inputType="text"
    android:textColor="#0000FF"
    android:typeface="sans" />

<TextView
    android:id="@+id/emergency_phone"
    android:layout_width="match_parent"
    android:layout_height="26dp"
    android:layout_marginTop="16dp"
    android:gravity="left"
    android:text="Phone"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" />

<EditText
    android:id="@+id/edit_emergency_phone"
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:hint="Phone Number:"
    android:inputType="phone"
    android:textColor="#0000FF"
    android:typeface="sans" />

<Button
    android:id="@+id/submit"
    android:layout_width="match_parent"
    android:layout_height="64dp"
    android:layout_marginTop="32dp"
    android:backgroundTint="#4CAF50"
    android:gravity="center"
    android:hint="Register"
    android:onClick="openTableActivity" />

<Button
```

```

        android:id="@+id/reset"
        android:layout_width="match_parent"
        android:layout_height="64dp"
        android:layout_marginTop="16dp"
        android:backgroundTint="#F44336"
        android:gravity="center"
        android:hint="Reset"
        android:onClick="resetFormFields" />
    </LinearLayout>
</ScrollView>

```

MainActivity.java

```

package com.example.a1;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.Spinner;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {

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

    public void openTableActivity(View view) {
        Intent intent = new Intent(this, TableActivity.class);

        intent.putExtra("name", ((EditText)
findViewById(R.id.editName)).getText().toString());
        if (((RadioButton)
findViewById(R.id.phone_radio_button_id)).isChecked())

```

```

        intent.putExtra("number_type", "Phone");
    else if (((RadioButton)
findViewById(R.id.phone_radio_button_id)).isChecked())
        intent.putExtra("number_type", "Landline");
        intent.putExtra("number", ((EditText)
findViewById(R.id.editNumber)).getText().toString());
        intent.putExtra("address", ((EditText)
findViewById(R.id.editAddress)).getText().toString());
        intent.putExtra("age", ((EditText)
findViewById(R.id.editAge)).getText().toString());

        DatePicker datePicker = findViewById(R.id.dobPicker);
        int day = datePicker.getDayOfMonth();
        int month = datePicker.getMonth();
        int year = datePicker.getYear();
        Calendar calendar = Calendar.getInstance();
        calendar.set(year, month, day);
        intent.putExtra("dob", calendar.getTime().toString());

        if (((RadioButton) findViewById(R.id.male)).isChecked())
intent.putExtra("gender", "Male");
        else if (((RadioButton) findViewById(R.id.female)).isChecked())
            intent.putExtra("gender", "Female");
        intent.putExtra("marital_status", ((Spinner)
findViewById(R.id.marital_status_spinner)).getSelectedItem().toString());

        intent.putExtra("employer_name", ((EditText)
findViewById(R.id.editEmployerName)).getText().toString());
        intent.putExtra("employment_status", ((Spinner)
findViewById(R.id.employment_status_spinner)).getSelectedItem().toString());

        intent.putExtra("emergency_name", ((EditText)
findViewById(R.id.edit_emergency_name)).getText().toString());
        intent.putExtra("emergency_relationship", ((EditText)
findViewById(R.id.edit_emergency_relationship)).getText().toString());
        intent.putExtra("emergency_address", ((EditText)
findViewById(R.id.edit_emergency_address)).getText().toString());
        intent.putExtra("emergency_phone", ((EditText)
findViewById(R.id.edit_emergency_phone)).getText().toString());

        startActivity(intent);
    }

```

```

    public void resetFormFields(View view) {
        ((EditText) findViewById(R.id.editName)).setText("");
        ((RadioButton)
findViewById(R.id.phone_radio_button_id)).setChecked(false);
        ((RadioButton)
findViewById(R.id.landline_radio_button_id)).setChecked(false);
        ((EditText) findViewById(R.id.editNumber)).setText("");
        ((EditText) findViewById(R.id.editAddress)).setText("");
        ((EditText) findViewById(R.id.editAge)).setText("");
        ((DatePicker) findViewById(R.id.dobPicker)).updateDate(1970, 0, 1);
        ((RadioButton) findViewById(R.id.male)).setChecked(false);
        ((RadioButton) findViewById(R.id.female)).setChecked(false);
        ((Spinner) findViewById(R.id.marital_status_spinner)).setSelection(0);

        ((EditText) findViewById(R.id.editEmployerName)).setText("");
        ((Spinner)
findViewById(R.id.employment_status_spinner)).setSelection(0);

        ((EditText) findViewById(R.id.edit_emergency_name)).setText("");
        ((EditText)
findViewById(R.id.edit_emergency_relationship)).setText("");
        ((EditText) findViewById(R.id.edit_emergency_address)).setText("");
        ((EditText) findViewById(R.id.edit_emergency_phone)).setText("");
    }
}

```

activity_table.xml

```

<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:stretchColumns="*">

    <TableRow>

        <TextView
            android:id="@+id/textView_title1"
            android:layout_width="100dp"
            android:layout_height="wrap_content"
            android:text="Patient details"

```

```

        android:textAlignment="center"
        android:textSize="48px"
        android:textStyle="bold" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_name"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Name" />

    <TextView
        android:id="@+id/textView_name_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_number"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Number" />

    <TextView
        android:id="@+id/textView_number_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_address"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Address" />

    <TextView

```

```
        android:id="@+id/textView_address_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_age"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Age" />

    <TextView
        android:id="@+id/textView_age_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_dob"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="DOB" />

    <TextView
        android:id="@+id/textView_dob_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_gender"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Gender" />

    <TextView
```

```

        android:id="@+id/textView_gender_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_marital_status"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Marital Status" />

    <TextView
        android:id="@+id/textView_marital_status_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_title2"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="32px"
        android:text="Employer details"
        android:textAlignment="center"
        android:textSize="48px"
        android:textStyle="bold" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_employer_name"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Employer Name" />

    <TextView
        android:id="@+id/textView_employer_name_value"

```

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_employment_status"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Employment Status" />

    <TextView
        android:id="@+id/textView_employment_status_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_title3"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="32px"
        android:text="Emergency details"
        android:textAlignment="center"
        android:textSize="48px"
        android:textStyle="bold" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_emergency_name"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Emergency name" />

    <TextView
        android:id="@+id/textView_emergency_name_value"
        android:layout_width="match_parent"
```



```

        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_emergency_relationship"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Emergency relationship" />

    <TextView
        android:id="@+id/textView_emergency_relationship_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_emergency_address"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Emergency address" />

    <TextView
        android:id="@+id/textView_emergency_address_value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_emergency_phone"
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Emergency phone" />

    <TextView
        android:id="@+id/textView_emergency_phone_value"
        android:layout_width="match_parent"

```

```
        android:layout_height="wrap_content" />
    </TableRow>
</TableLayout>
```

TableActivity.java

```
package com.example.a1;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;

public class TableActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_table);

        Intent intent = getIntent();
        Bundle extras = intent.getExtras();
        if (extras == null) return;

        ((TextView)
findViewById(R.id.textView_name_value)).setText(extras.getString("name"));
        ((TextView)
findViewById(R.id.textView_number_value)).setText(extras.getString("number"));
        ((TextView)
findViewById(R.id.textView_address_value)).setText(extras.getString("address")
);
        ((TextView)
findViewById(R.id.textView_age_value)).setText(extras.getString("age"));
        ((TextView)
findViewById(R.id.textView_dob_value)).setText(extras.getString("dob"));
        ((TextView)
findViewById(R.id.textView_gender_value)).setText(extras.getString("gender"));
        ((TextView)
findViewById(R.id.textView_marital_status_value)).setText(extras.getString("ma
rital_status"));
```

```

        ((TextView)
findViewById(R.id.textView_employer_name_value)).setText(extras.getString("emp
loyer_name"));
        ((TextView)
findViewById(R.id.textView_employment_status_value)).setText(extras.getString(
"employment_status"));

        ((TextView)
findViewById(R.id.textView_emergency_name_value)).setText(extras.getString("em
ergency_name"));
        ((TextView)
findViewById(R.id.textView_emergency_relationship_value)).setText(extras.getSt
ring("emergency_relationship"));
        ((TextView)
findViewById(R.id.textView_emergency_address_value)).setText(extras.getString(
"emergency_address"));
        ((TextView)
findViewById(R.id.textView_emergency_phone_value)).setText(extras.getString("e
mergency_phone"));

    }
}

```

strings.xml

```

<resources>
    <string name="app_name">A1</string>
    <string-array name="marital_status_options">
        <item>Never Married</item>
        <item>Married</item>
        <item>Widowed</item>
        <item>Divorced</item>
        <item>Separated</item>
    </string-array>

    <string-array name="employment_status_options">
        <item>Full Time</item>
        <item>Part Time</item>
        <item>Unemployed</item>
        <item>Retired</item>
        <item>Student</item>
        <item>Other</item>
    </string-array>

```

```
</string-array>
<string name="title_activity_table">All Details</string>

</resources>
```

Output

9:39

A1

Health Insurance Registration

Patient Details

Name

Cyril Melvin Vincent

Number

☒ Phone

☐ Landline

9003178409

Address

Chennai

1 2 ABC 3 DEF -

4 GHI 5 JKL 6 MNO ↵

7 PQRS 8 TUV 9 WXYZ ✕

* # 0 + . →

9:42

A1

DOB

2002

Sat, Aug 24

< August 2002 >

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Gender

☒ Male

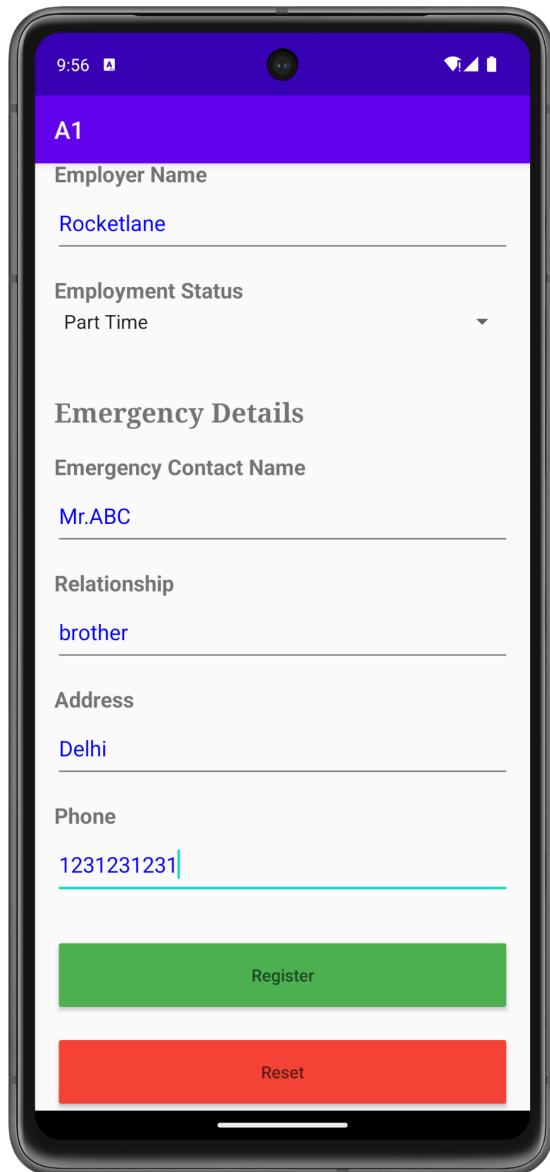
☐ Female

Marital Status

Never Married ▼

Employer Details

Employer Name



A1

Employer Name

Rocketlane

Employment Status

Part Time

Emergency Details

Emergency Contact Name

Mr.ABC

Relationship

brother

Address

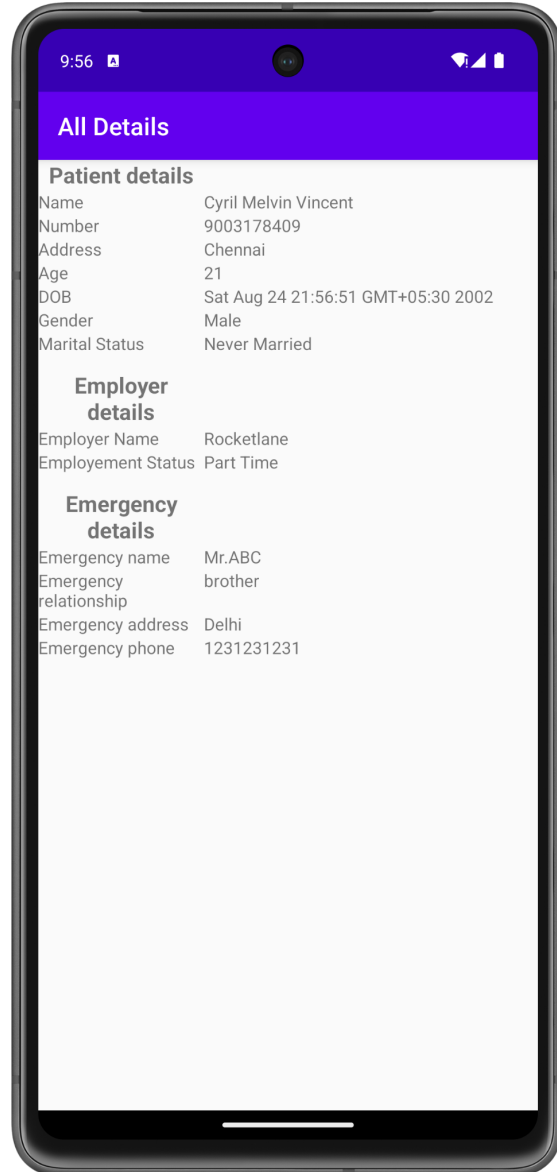
Delhi

Phone

1231231231

Register

Reset



All Details

Patient details

Name	Cyril Melvin Vincent
Number	9003178409
Address	Chennai
Age	21
DOB	Sat Aug 24 21:56:51 GMT+05:30 2002
Gender	Male
Marital Status	Never Married

Employer details

Employer Name	Rocketlane
Employment Status	Part Time

Emergency details

Emergency name	Mr.ABC
Emergency relationship	brother
Emergency address	Delhi
Emergency phone	1231231231

Learning outcomes

Basic GUI components and layouts that are available

Passing data between activities