Exercise 1 - Designing Health Insurance Form using GUI Components

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CSE-B

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 the 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"
```

```xml
    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"
```

```xml
        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_pare
    nt" android:layout_height="26dp"
    android:layout_marginTop="16
    dp" android:gravity="left"
    android:text="Address"
    android:textSize="18sp"
    android:textStyle="bold"
    android:typeface="normal" >

<EditText
    android:id="@+id/editAddress"
    android:layout_width="match_pare
    nt" android:layout_height="54dp"
    android:hint="Address:"
    android:inputType="text"
    android:textColor="#0000FF"
```

```xml
        android:typeface="sans" >

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

    <EditText
        android:id="@+id/editAge"
        android:layout_width="match_pare
        nt" 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_pare
        nt" 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"
```

```xml
    android:layout_width="match_pare
    nt"
    android:layout_height="wrap_cont
    ent" android:gravity="center" >

<TextView
    android:id="@+id/gender"
    android:layout_width="match_pare
    nt" 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_conte
    nt"
    android:layout_height="wrap_cont
    ent"
    android:layout_marginTop="4dp">

    <RadioButton
        android:id="@+id/male"
        android:layout_width="wrap_conte
        nt"
        android:layout_height="wrap_cont
        ent" android:text="Male" >

    <RadioButton
        android:id="@+id/female"
        android:layout_width="wrap_conte
        nt"
```

```xml
            android:layout_height="wrap_cont
            ent" 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"
```

```xml
        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_spin
        ner"
        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_n
        ame"
        android:layout_width="match_paren
        t"
        android:layout_height="54dp"
        android:hint="Employer Contact
        Name:" android:inputType="text"
        android:textColor="#0000FF"
        android:typeface="sans" >

    <TextView
        android:id="@+id/emergency_relations
        hip"
        android:layout_width="match_parent"
        android:layout_height="26dp"
```

```xml
        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_relations
        hip" 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_addr
        ess"
        android:layout_width="match_parent"
        android:layout_height="54dp"
        android:hint="Address:"
        android:inputType="text"
        android:textColor="#0000FF"
        android:typeface="sans" >
```

```xml
<TextView
    android:id="@+id/emergency_phone
    "
    android:layout_width="match_pare
    nt" 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_ph
    one"
    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_pare
    nt" 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

```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);
    }
```

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

    intent.putExtra("name", ((EditText)
findViewById(R.id.editName)).getText().toStrin
    g()); 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)
```

```java
findViewById(R.id.editEmployerName)).getText().toStrin
 g()); intent.putExtra("employment_status", ((Spinner)
findViewById(R.id.employment_status_spinner)).getSelectedItem().toStrin
g());

        intent.putExtra("emergency_name", ((EditText)
findViewById(R.id.edit_emergency_name)).getText().toStri
        ng()); intent.putExtra("emergency_relationship",
        ((EditText)
findViewById(R.id.edit_emergency_relationship)).getText().toStri
     ng()); intent.putExtra("emergency_address", ((EditText)
findViewById(R.id.edit_emergency_address)).getText().toStri
    ng()); 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(f
        alse); ((RadioButton)
findViewById(R.id.landline_radio_button_id)).setChecked(f
        alse); ((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)
```

```java
    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
<?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>
```

```xml
    <TextView
        android:id="@+id/textView_name"
        android:layout_width="100dp"
        android:layout_height="wrap_cont
        ent" android:text="Name" >

    <TextView
        android:id="@+id/textView_name_va
        lue"
        android:layout_width="match_paren
        t"
        android:layout_height="wrap_content
" > /TableRow>

<TableRow>

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

    <TextView
        android:id="@+id/textView_number_va
        lue"
        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_cont
```

```xml
        ent" android:text="Address" >

    <TextView
        android:id="@+id/textView_address_va
        lue"
        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_cont
        ent" android:text="Age" >

    <TextView
        android:id="@+id/textView_age_va
        lue"
        android:layout_width="match_pare
        nt"
        android:layout_height="wrap_content
" > /TableRow>

<TableRow>

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

    <TextView
        android:id="@+id/textView_dob_va
        lue"
```

```xml
        android:layout_width="match_pare
        nt"
        android:layout_height="wrap_content
" > /TableRow>

<TableRow>

    <TextView
        android:id="@+id/textView_gender"
        android:layout_width="100dp"
        android:layout_height="wrap_cont
        ent" 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_v
        alue" 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_sta
        tus" android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="Employement Status" >

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

    <TableRow>

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

```xml
        <TextView
            android:id="@+id/textView_emergency_relationship_v
            alue" 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_v
            alue" 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_v
            alue" android:layout_width="match_parent"
            android:layout_height="wrap_content" >
    /TableRow>

/TableLayout>
```

TableActivity.java

```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("n
        ame")); ((TextView)
findViewById(R.id.textView_number_value)).setText(extras.getString("num
        ber")); ((TextView)
findViewById(R.id.textView_address_value)).setText(extras.getString("ad
dress") );
        ((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("gen
        der")); ((TextView)
findViewById(R.id.textView_marital_status_value)).setText(extras.getStr
ing("ma rital_status"));
        ((TextView)
```

```java
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

```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>
```

```xml
        <item>Part Time /item>
        <item>Unemployed /item>
        <item>Retired /item>
        <item>Student /item>
        <item>Other /item>
    /string-array>
    <string name="title_activity_table">All Details

/string> /resources>
```
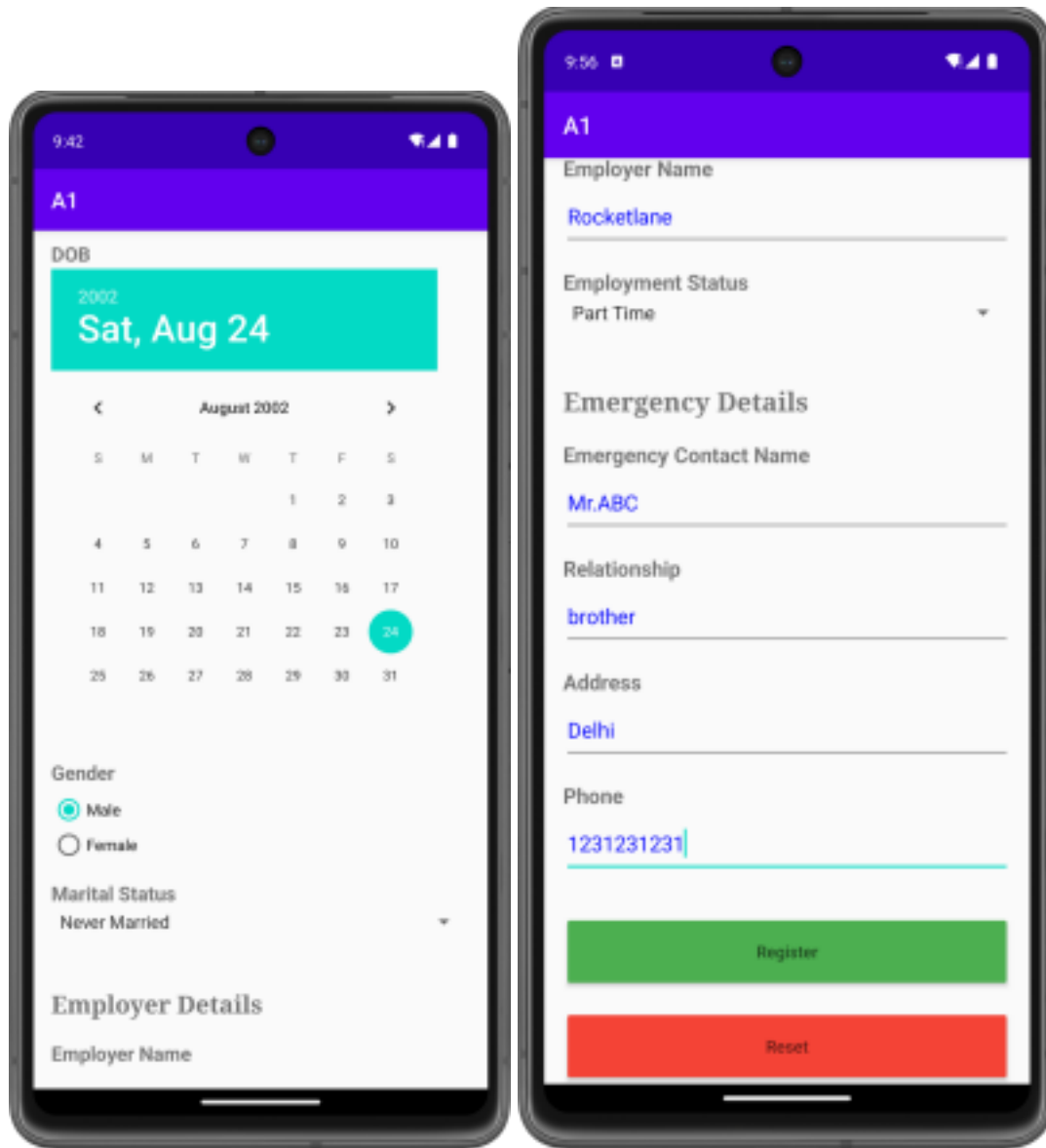
Output

Learning outcomes

Basic GUI components and layouts that are available

Passing data between activities