# 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 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"

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="Employement 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>

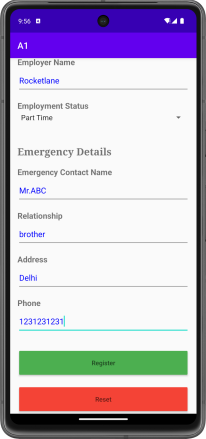
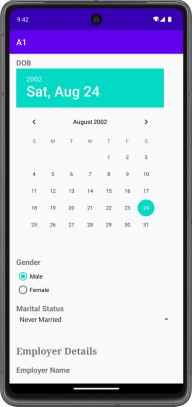
<item>Student /item>

<item>Other /item>

/string-array>

<string name="title\_activity\_table">All Details /string> /resources>

## Output

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## Learning outcomes

Basic GUI components and layouts that are available

Passing data between activities