

## MOBIL APP DEVELOPMENET LAB

### WEEK 4: Create “Registration” App

**Objective:** Design and Development of Simple Student Registration App

#### PROCEDURE:

**Step 1:** Open Android Studio

**Step 2:** In the main Welcome to Android Studio window, click **New Project**

**Step 3:** choose Empty Activity

**Step 4:** Enter Project Details

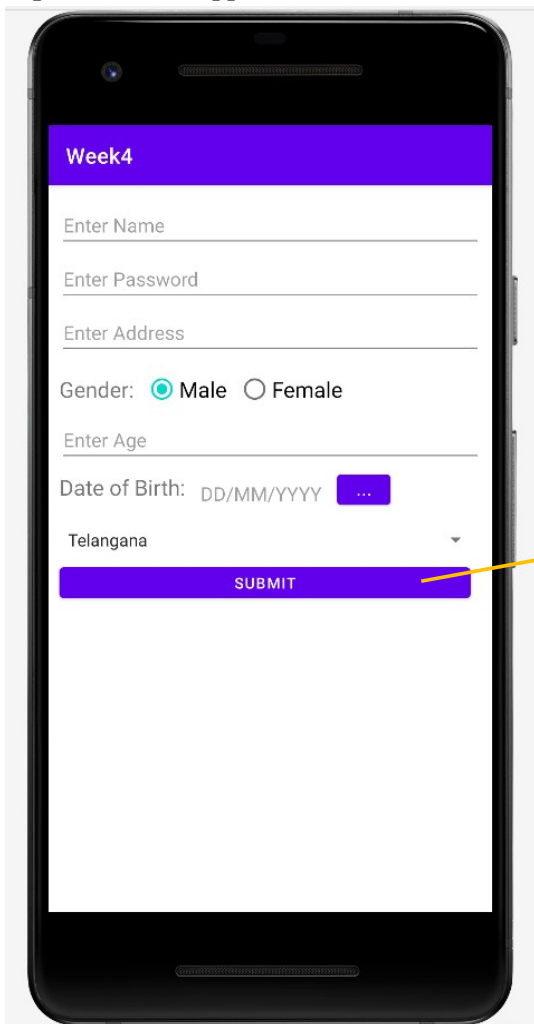
**Step 5:** Create Student.java Class

**Step 6:** Design UI and Write Code for MainActivity

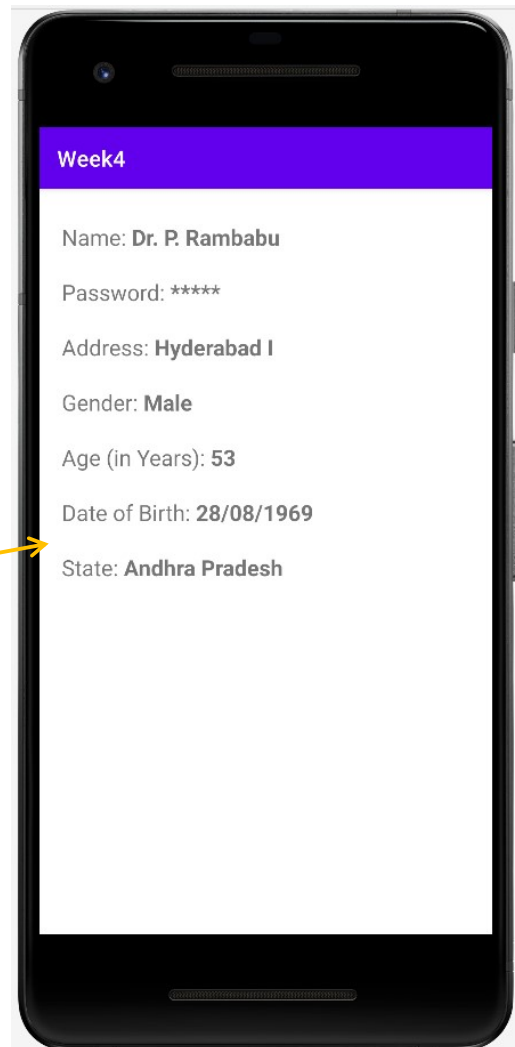
**Step 7:** Create SecondActivity, Design UI and Write Code to Display Student Details

**Step 8:** Create and Select Android Virtual Device (Emulator)

**Step 9:** Run the App on the Virtual Device



**MainActivity**



**SecondActivity**

## Procedure:

### Step 5: Create Student Class

Open Student.java → Write Code

```
package com.example.week4;
import java.io.Serializable;
public class Student implements Serializable {
    public String Name;
    public String Password;
    public String Address;
    public String Gender;
    public String Age;
    public String DOB;
    public String State;
}
```

### Step 6: Design UI in MainActivity

6a. Open [activity\\_main.xml](#) → Select Design View

```
<?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:orientation="vertical"
    android:layout_marginLeft="10dp"
    android:layout_marginRight="10dp"
    android:layout_marginTop="10dp"
    android:layout_marginBottom="10dp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/editTextName"
        android:hint="Enter Name"
        android:inputType="text"
        android:layout_width="match_parent"
        android:layout_marginTop="10dp"
        android:layout_height="40dp">
    </EditText>

    <EditText
        android:id="@+id/editTextPassword"
        android:hint="Enter Password"
        android:inputType="textPassword"
        android:layout_marginTop="10dp"
        android:layout_width="match_parent"
        android:layout_height="40dp">
    </EditText>

    <EditText
        android:id="@+id/editTextAddress"
        android:hint="Enter Address"
        android:inputType="textMultiLine"
        android:layout_marginTop="10dp"
        android:layout_width="match_parent"
        android:layout_height="40dp">
    </EditText>
```

```

<RadioGroup
    android:id="@+id/rbGroupGender"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:layout_marginTop="10dp"
    android:orientation="horizontal"
    android:checkedButton="@id/rbMale">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="40dp"
        android:text="Gender:"
        android:textSize="20dp">
    </TextView>

    <RadioButton
        android:id="@+id/rbMale"
        android:layout_width="wrap_content"
        android:layout_height="40dp"
        android:text="Male"
        android:textSize="20dp"
        android:layout_marginLeft="10dp"/>

    <RadioButton
        android:id="@+id/rbFemale"
        android:layout_width="wrap_content"
        android:layout_height="40dp"
        android:text="Female"
        android:textSize="20dp"
        android:layout_marginLeft="10dp"/>

</RadioGroup>

<EditText
    android:id="@+id/editTextAge"
    android:hint="Enter Age"
    android:inputType="number"
    android:layout_marginTop="10dp"
    android:layout_width="match_parent"
    android:layout_height="40dp">
</EditText>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="40dp">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="40dp"
        android:text="Date of Birth:"
        android:textSize="20dp"
    ></TextView>

    <EditText
        android:id="@+id/editTextDOB"
        android:hint="DD/MM/YYYY"
        android:inputType="date"
        android:layout_marginTop="10dp"
        android:layout_width="wrap_content"
        android:layout_marginLeft="10dp"
        android:textSize="18dp"
    >

```

```

        android:layout_height="40dp">
    </EditText>

    <Button
        android:id="@+id/btnDatePicker"
        android:layout_width="50dp"
        android:layout_height="40dp"
        android:text="..."
        android:layout_marginLeft="10dp"
        android:onClick="ShowDatePicker"
    ></Button>

</LinearLayout>

<Spinner
    android:id="@+id/spinnerState"
    android:layout_width="match_parent"
    android:layout_height="40sp"
    android:layout_marginTop="10dp"/>

<Button
    android:id="@+id/btnSubmit"
    android:text="SUBMIT"
    android:onClick="SaveData"
    android:layout_marginRight="10dp"
    android:layout_width="match_parent"
    android:layout_height="40dp">
</Button>

</LinearLayout>

```

6b. Open [MainActivity.java](#) and write Code

```

package com.example.week4;

import androidx.appcompat.app.AppCompatActivity;

import android.app.DatePickerDialog;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Spinner;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity implements
    DatePickerDialog.OnDateSetListener {

    Student student;

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

```

```

        student = new Student();

        FillState();
    }

    public void SaveData(View view){
        EditText editTextName = findViewById(R.id.editTextName);
        EditText editTextPassword = findViewById(R.id.editTextPassword);
        EditText editTextAddress = findViewById(R.id.editTextAddress);
        EditText editTextAge = findViewById(R.id.editTextAge);
        EditText editTextDOB = findViewById(R.id.editTextDOB);

        student.Name = editTextName.getText().toString();
        student.Password = editTextPassword.getText().toString();
        student.Address = editTextAddress.getText().toString();

        student.Gender = GetGender();

        student.Age = editTextAge.getText().toString();
        student.DOB = editTextDOB.getText().toString();

        Intent intent = new Intent(MainActivity.this, SecondActivity.class);
        intent.putExtra("key", student);
        startActivity(intent);
    }

    private String GetGender(){
        RadioGroup rbGroupGender = findViewById(R.id.rbGroupGender);
        RadioButton selectedRadioButton;

        int selectedRadioButtonId = rbGroupGender.getCheckedRadioButtonId();

        if (selectedRadioButtonId != -1) {
            selectedRadioButton = findViewById(selectedRadioButtonId);
            String selectedGender = selectedRadioButton.getText().toString();
            return selectedGender;
        } else {
            return "";
        }
    }

    private void FillState(){
        String[] data = { "Telangana", "Andhra Pradesh" };
        Spinner spinnerState = findViewById(R.id.spinnerState);

        //Creating the ArrayAdapter instance having the country list
        ArrayAdapter aa = new
ArrayAdapter(this, android.R.layout.simple_spinner_item, data);

        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        //Setting the ArrayAdapter data on the Spinner
        spinnerState.setAdapter(aa);
        spinnerState.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View view, int
i, long l) {
                student.State = adapterView.getItemAtPosition(i).toString();
            }
        });
    }

```

```

        @Override
        public void onNothingSelected(AdapterView<?> adapterView) {

        }

    });
}

public void ShowDatePicker(View view){
    DatePickerDialog dialog = new DatePickerDialog(
        this,
        this,
        Calendar.getInstance().get(Calendar.YEAR),
        Calendar.getInstance().get(Calendar.MONTH),
        Calendar.getInstance().get(Calendar.DAY_OF_MONTH));
    dialog.show();
}

@Override
public void onDateSet(DatePicker view, int year, int monthOfYear, int
dayOfMonth) {
    monthOfYear++;
    student.DOB = dayOfMonth + "-" + monthOfYear + "-" + year;

    EditText editTextDOB = findViewById(R.id.editTextDOB);
    editTextDOB.setText(student.DOB);
}
}

```

7a. Open [activity\\_second.xml](#) → Select Design View → Add Widgets – TextView

```

<?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:layout_margin="20dp"
    android:orientation="vertical"
    tools:context=".SecondActivity">

    <TextView
        android:id="@+id/textViewName"
        android:layout_width="match_parent"
        android:layout_height="40dp"
        android:text="Name: "
        android:layout_marginTop="10dp"
        android:textSize="20dp"/>

    <TextView
        android:id="@+id/textViewPassword"
        android:layout_width="match_parent"
        android:layout_height="40dp"
        android:text="Password: "
        android:layout_marginTop="10dp"
        android:textSize="20dp"/>

    <TextView
        android:id="@+id/textViewAddress"
        android:layout_width="match_parent"
        android:layout_height="40dp"

```

```

        android:text="Address: "
        android:layout_marginTop="10dp"
        android:textSize="20dp"/>

<TextView
    android:id="@+id/textViewGender"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:text="Gender: "
    android:layout_marginTop="10dp"
    android:textSize="20dp"/>

<TextView
    android:id="@+id/textViewAge"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:text="Age (in Years): "
    android:layout_marginTop="10dp"
    android:textSize="20dp"/>

<TextView
    android:id="@+id/textViewDOB"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:text="Date of Birth: "
    android:layout_marginTop="10dp"
    android:textSize="20dp"/>

<TextView
    android:id="@+id/textViewState"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:text="State: "
    android:layout_marginTop="10dp"
    android:textSize="20dp"/>

</LinearLayout>

```

7b. Open [SecondActivity.java](#) and write Code

```

package com.example.week4;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.text.Html;
import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {

    @SuppressLint("SetTextI18n")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second);

        Student student = (Student) getIntent().getSerializableExtra("key");
        String name = "Name: <b>" + student.Name + "</b>";
        String password = "Password: <b>*****</b>";
    }
}

```

```

String address = "Address: <b>" + student.Address + "</b>";
String gender = "Gender: <b>" + student.Gender + "</b>";
String age = "Age (in Years): <b>" + student.Age + "</b>";
String dob = "Date of Birth: <b>" + student.DOB + "</b>";
String state = "State: <b>" + student.State + "</b>";

TextView textViewName = findViewById(R.id.textViewName);
textViewName.setText(Html.fromHtml(name));

TextView textViewPassword = findViewById(R.id.textViewPassword);
textViewPassword.setText(Html.fromHtml(password));

TextView textViewAddress = findViewById(R.id.textViewAddress);
textViewAddress.setText(Html.fromHtml(address));

TextView textViewGender = findViewById(R.id.textViewGender);
textViewGender.setText(Html.fromHtml(gender));

TextView textViewAge = findViewById(R.id.textViewAge);
textViewAge.setText(Html.fromHtml(age));

TextView textViewDOB = findViewById(R.id.textViewDOB);
textViewDOB.setText(Html.fromHtml(dob));

TextView textViewState = findViewById(R.id.textViewState);
textViewState.setText(Html.fromHtml(state));

    }
}

```