Assignment:-14

14. Submit your User Defined Android Application.

Ans:- ACTIVITY_MAIN.XML

```xml
<relativelayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent" >
<Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentTop="true"
        android:text="Date Of Birth" />
<TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_below="@+id/button1"
        android:layout_marginTop="23dp"
        android:text="Current Date" />
<TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_below="@+id/textView1"
        android:layout_marginTop="18dp"
        android:text="Birth Date" />
<TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_below="@+id/textView2"
        android:layout_marginTop="16dp"
        android:text="Result" />
</RelativeLayout>
```

MAINACTIVITY.JAVA:-

```java
public class AgeCalculation {
private int startYear;
private int startMonth;
private int startDay;
private int endYear;
private int endMonth;
private int endDay;
private int resYear;
private int resMonth;
private int resDay;
public String getCurrentDate()
{
Calendar c=Calendar.getInstance();
endYear=c.get(Calendar.YEAR);
endMonth=c.get(Calendar.MONTH);
endMonth++;
endDay=c.get(Calendar.DAY_OF_MONTH);
return endDay+":"+endMonth+":"+endYear;}
public void setDateOfBirth(int sYear, int sMonth, int sDay){
startYear=sYear;
startMonth=sMonth;
startMonth++;
startDay=sDay;}
public void calcualteYear(){
resYear=endYear-startYear;}
public void calcualteMonth(){
if(endMonth>=startMonth){
resMonth= endMonth-startMonth;}
else{resMonth=endMonth-startMonth;
resMonth=12+resMonth;
resYear--;}}
public void calcualteDay(){
if(endDay>=startDay){
resDay= endDay-startDay;}
else{
resDay=endDay-startDay;
resDay=30+resDay;
//resMonth--;}}

public String getResult(){return resDay+":"+resMonth+":"+resYear;}}
```

ADD THE DATEPICKERFRAGMENT CLASS BELOW:-

```
public class MainActivity extends Activity implements OnClickListener{
private Button btnStart;
static final int DATE_START_DIALOG_ID = 0;
private int startYear=1970;
private int startMonth=6;
private int startDay=15;
private AgeCalculation age = null;
private TextView currentDate;
private TextView birthDate;
private TextView result;
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
age=new AgeCalculation();
currentDate=(TextView) findViewById(R.id.textView1);
currentDate.setText( age.getCurrentDate());
birthDate=(TextView) findViewById(R.id.textView2);
result=(TextView) findViewById(R.id.textView3);
btnStart=(Button) findViewById(R.id.button1);
btnStart.setOnClickListener(this);
}
@Override
protected Dialog onCreateDialog(int id) {
switch (id) {
case DATE_START_DIALOG_ID:
return new DatePickerDialog(this,
mDateSetListener,
startYear, startMonth, startDay);
}
return null;
}
private DatePickerDialog.OnDateSetListener mDateSetListener
= new DatePickerDialog.OnDateSetListener() {
public void onDateSet(DatePicker view, int selectedYear,
int selectedMonth, int selectedDay) {
startYear=selectedYear;
startMonth=selectedMonth;
startDay=selectedDay;
age.setDateOfBirth(startYear, startMonth, startDay);
birthDate.setText(""+selectedDay+":"+(startMonth+1)+":"+startYear);
calculateAge();}};
```

```
public void onClick(View v) {
// TODO Auto-generated method stub
switch (v.getId()) {
case R.id.button1:
showDialog(DATE_START_DIALOG_ID);
break;default:break;}
}
private void calculateAge(){
age.calcualteYear();
age.calcualteMonth();
age.calcualteDay();
Toast.makeText(getBaseContext(), "click the resulted button"+age.getResult() ,
Toast.LENGTH_SHORT).show();
result.setText(age.getResult());}}
```

Output:-