**Android Programs**

**====================================**

**1)Hello World**

**XML :-**

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

**<RelativeLayoutxmlns: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"**

**android:paddingBottom="@dimen/activity\_vertical\_margin"**

**android:paddingLeft="@dimen/activity\_horizontal\_margin"**

**android:paddingRight="@dimen/activity\_horizontal\_margin"**

**android:paddingTop="@dimen/activity\_vertical\_margin"**

**tools:context=".ToastMainActivity" >**

**<Button**

**android:id="@+id/buttonToast"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_marginLeft="44dp"**

**android:layout\_marginTop="74dp"**

**android:text="Show Toast" />**

**</RelativeLayout>**

**JAVA :-**

**package com.example.s5\_ramees.hello\_world;**

**importandroid.os.Bundle;**

**importandroid.widget.Button;**

**importandroid.widget.Toast;**

**importandroid.app.Activity;**

**importandroid.view.Menu;**

**importandroid.view.View;**

**importandroid.view.View.OnClickListener;**

**public class MainActivity extends Activity {**

**private Button button;**

**@Override**

**protected void onCreate(Bundle savedInstanceState) {**

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**button = (Button) findViewById(R.id.buttonToast);**

**button.setOnClickListener(new OnClickListener() {**

**public void onClick(View arg0) {**

**Toast.makeText(getApplicationContext(),**

**"Hello World", Toast.LENGTH\_LONG).show();**

**}**

**});**

**}**

**}**

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**2) Addition of two numbers**

**XML :-**

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

**<RelativeLayoutxmlns: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"**

**android:paddingBottom="@dimen/activity\_vertical\_margin"**

**android:paddingLeft="@dimen/activity\_horizontal\_margin"**

**android:paddingRight="@dimen/activity\_horizontal\_margin"**

**android:paddingTop="@dimen/activity\_vertical\_margin"**

**tools:context=".MainActivity" >**

**<TextView**

**android:id="@+id/textView1"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_alignParentTop="true"**

**android:layout\_centerHorizontal="true"**

**android:layout\_marginTop="97dp"**

**android:text="Addition"**

**android:textAppearance="?android:attr/textAppearanceMedium" />**

**<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\_marginLeft="20dp"**

**android:layout\_marginTop="43dp"**

**android:text="Number One"**

**android:textAppearance="?android:attr/textAppearanceMedium" />**

**<EditText**

**android:id="@+id/txtNumber1"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_alignBottom="@+id/textView2"**

**android:layout\_alignRight="@+id/textView1"**

**android:ems="2"**

**android:inputType="number" >**

**<requestFocus />**

**</EditText>**

**<TextView**

**android:id="@+id/textView3"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_alignLeft="@+id/textView2"**

**android:layout\_below="@+id/textView2"**

**android:layout\_marginTop="47dp"**

**android:text="Number Two"**

**android:textAppearance="?android:attr/textAppearanceMedium" />**

**<Button**

**android:id="@+id/btnAdd"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_alignLeft="@+id/textView3"**

**android:layout\_alignRight="@+id/textView3"**

**android:layout\_below="@+id/textView3"**

**android:layout\_marginTop="46dp"**

**android:text="Add" />**

**<TextView**

**android:id="@+id/txtResult"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_alignRight="@+id/txtNumber2"**

**android:layout\_alignTop="@+id/btnAdd"**

**android:textAppearance="?android:attr/textAppearanceMedium" />**

**<EditText**

**android:id="@+id/txtNumber2"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:ems="2"**

**android:inputType="number"**

**android:layout\_above="@+id/btnAdd"**

**android:layout\_alignLeft="@+id/txtNumber1"**

**android:layout\_alignStart="@+id/txtNumber1" />**

**</RelativeLayout>**

**JAVA :-**

**package com.example.s5\_ramees.myapplication;**

**importandroid.os.Bundle;**

**importandroid.app.Activity;**

**importandroid.view.Menu;**

**importandroid.view.View;**

**importandroid.view.View.OnClickListener;**

**importandroid.widget.Button;**

**importandroid.widget.EditText;**

**importandroid.widget.TextView;**

**public class MainActivity extends Activity {**

**EditTextfirstNumber;**

**EditTextsecondNumber;**

**TextViewaddResult;**

**Button btnAdd;**

**double num1,num2,sum;**

**@Override**

**protected void onCreate(Bundle savedInstanceState) {**

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**firstNumber = (EditText)findViewById(R.id.txtNumber1);**

**secondNumber = (EditText)findViewById(R.id.txtNumber2);**

**addResult = (TextView)findViewById(R.id.txtResult);**

**btnAdd = (Button)findViewById(R.id.btnAdd);**

**btnAdd.setOnClickListener(new OnClickListener() {**

**public void onClick(View v) {**

**num1 = Double.parseDouble(firstNumber.getText().toString());**

**num2 = Double.parseDouble(secondNumber.getText().toString());**

**sum = num1 + num2;**

**addResult.setText(Double.toString(sum));**

**}**

**});**

**}**

**}**

**3)Date and Time Dialog box( Write a program to display date and time using dialog box)**

**XML :-**

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.constraint.ConstraintLayoutxmlns: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"  
tools:context=".MainActivity"**>  
  
<**LinearLayout  
android:id="@+id/widget28"  
android:layout\_width="fill\_parent"  
android:layout\_height="fill\_parent"  
android:orientation="vertical"  
xmlns:android="http://schemas.android.com/apk/res/android"**>  
<**TextView  
android:id="@+id/lblDateAndTime"  
android:layout\_width="fill\_parent"  
android:layout\_height="67dp"  
android:background="#FFFFFF"  
android:textStyle="bold"**>  
</**TextView**>  
<**Button  
android:id="@+id/btnDate"  
android:layout\_width="fill\_parent"  
android:layout\_height="wrap\_content"  
android:text="Set the Date"**>  
</**Button**>  
  
<**Button  
android:id="@+id/btnTime"  
android:layout\_width="fill\_parent"  
android:layout\_height="wrap\_content"  
android:text="Set the Time"** />  
  
</**LinearLayout**>  
  
  
</**android.support.constraint.ConstraintLayout**>

**JAVA :-**

**package** com.example.dell.myapplication;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.app.DatePickerDialog;  
**import** android.app.TimePickerDialog;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.DatePicker;  
**import** android.widget.TimePicker;  
**import** android.widget.TextView;  
**import** java.text.DateFormat;  
**import** java.util.Calendar;  
  
**public class** MainActivity**extends** Activity {  
DateFormat**fmtDateAndTime**= DateFormat.*getDateTimeInstance*();  
TextView**lblDateAndTime**;  
 Calendar **myCalendar**= Calendar.*getInstance*();  
  
DatePickerDialog.OnDateSetListener**d** = **new** DatePickerDialog.OnDateSetListener() {  
**public void** onDateSet(DatePicker view, **int**year, **int**monthOfYear,  
**int**dayOfMonth) {  
**myCalendar**.set(Calendar.***YEAR***, year);  
**myCalendar**.set(Calendar.***MONTH***, monthOfYear);  
**myCalendar**.set(Calendar.***DAY\_OF\_MONTH***, dayOfMonth);  
updateLabel();  
 }  
 };  
  
TimePickerDialog.OnTimeSetListener**t** = **new** TimePickerDialog.OnTimeSetListener() {  
**public void** onTimeSet(TimePicker view, **int**hourOfDay, **int**minute) {  
**myCalendar**.set(Calendar.***HOUR\_OF\_DAY***, hourOfDay);  
**myCalendar**.set(Calendar.***MINUTE***, minute);  
updateLabel();  
 }  
 };  
  
**private void** updateLabel() {  
**lblDateAndTime**.setText(**fmtDateAndTime**.format(**myCalendar**.getTime()));  
 }  
  
@Override  
**public void** onCreate(Bundle icicle) {  
**super**.onCreate(icicle);  
setContentView(R.layout.***activity\_main***);  
**lblDateAndTime**= (TextView) findViewById(R.id.***lblDateAndTime***);  
 Button btnDate = (Button) findViewById(R.id.***btnDate***);  
btnDate.setOnClickListener(**new** View.OnClickListener() {  
**public void** onClick(View v) {  
**new** DatePickerDialog(MainActivity.**this**, **d**, **myCalendar**.get(Calendar.***YEAR***), **myCalendar**.get(Calendar.***MONTH***),  
**myCalendar**.get(Calendar.***DAY\_OF\_MONTH***)).show();  
 }  
 });  
  
 Button btnTime = (Button) findViewById(R.id.***btnTime***);  
btnTime.setOnClickListener(**new** View.OnClickListener() {  
**public void** onClick(View v) {  
**new** TimePickerDialog(MainActivity.**this**, **t**, **myCalendar**.get(Calendar.***HOUR\_OF\_DAY***), **myCalendar**.get(Calendar.***MINUTE***), **true**).show();  
 }  
 });  
  
updateLabel();  
 }*// onCreate*} *// class*

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**4)Alert Box (Write a program to Display an alert box with OK and Cancel)**

**XML :-**

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

**<LinearLayoutxmlns:android="http://schemas.android.com/apk/res/android"**

**android:layout\_width="fill\_parent"**

**android:layout\_height="fill\_parent"**

**android:orientation="vertical" >**

**<Button**

**android:id="@+id/buttonAlert"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:text="Show Alert Box" />**

**</LinearLayout>**

**JAVA :-**

**package com.example.s5\_ramees.alert\_box;**

**importandroid.app.Activity;**

**importandroid.app.AlertDialog;**

**importandroid.content.Context;**

**importandroid.content.DialogInterface;**

**importandroid.os.Bundle;**

**importandroid.view.View;**

**importandroid.view.View.OnClickListener;**

**importandroid.widget.Button;**

**public class MainActivity extends Activity {**

**final Context context = this;**

**private Button button;**

**public void onCreate(Bundle savedInstanceState) {**

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**button = (Button) findViewById(R.id.buttonAlert);**

**// add button listener**

**button.setOnClickListener(new OnClickListener() {**

**@Override**

**public void onClick(View arg0) {**

**AlertDialog.BuilderalertDialogBuilder = new AlertDialog.Builder(**

**context);**

**// set title**

**alertDialogBuilder.setTitle("Your Title");**

**// set dialog message**

**alertDialogBuilder**

**.setMessage("Click yes to exit!")**

**.setCancelable(false)**

**.setPositiveButton("Yes",newDialogInterface.OnClickListener() {**

**public void onClick(DialogInterfacedialog,int id) {**

**// if this button is clicked, close**

**// current activity**

**MainActivity.this.finish();**

**}**

**})**

**.setNegativeButton("No",newDialogInterface.OnClickListener() {**

**public void onClick(DialogInterfacedialog,int id) {**

**// if this button is clicked, just close**

**// the dialog box and do nothing**

**dialog.cancel();**

**}**

**});**

**// create alert dialog**

**AlertDialogalertDialog = alertDialogBuilder.create();**

**// show it**

**alertDialog.show();**

**}**

**});**

**}**

**}**

**5)**

**XML :-**

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:padding="10dip"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"**>  
  
 <**TextView  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dip"  
 android:text="Category:"  
 android:layout\_marginBottom="5dp"**/>  
  
 <**Spinner  
 android:id="@+id/spinner"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"** />  
  
</**LinearLayout**>

**JAVA :-**

**package** com.example.s5\_3\_4.menu;  
  
**import** java.util.ArrayList;  
**import** java.util.List;  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.AdapterView;  
**import** android.widget.ArrayAdapter;  
**import** android.widget.Spinner;  
**import** android.widget.Toast;  
**import** android.widget.AdapterView.OnItemSelectedListener;  
  
**class** MainActivity **extends** Activity **implements** OnItemSelectedListener{  
 @Override  
 **public void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 *// Spinner element* Spinner spinner = (Spinner) findViewById(R.id.***spinner***);  
  
 *// Spinner click listener* spinner.setOnItemSelectedListener(**this**);  
  
 *// Spinner Drop down elements* List<String> categories = **new** ArrayList<String>();  
 categories.add(**"Automobile"**);  
 categories.add(**"Business Services"**);  
 categories.add(**"Computers"**);  
 categories.add(**"Education"**);  
 categories.add(**"Personal"**);  
 categories.add(**"Travel"**);  
  
 ArrayAdapter<String> dataAdapter = **new** ArrayAdapter<String>(**this**, android.R.layout.***simple\_spinner\_item***, categories);  
  
 dataAdapter.setDropDownViewResource(android.R.layout.***simple\_spinner\_dropdown\_item***);  
  
 spinner.setAdapter(dataAdapter);  
 }  
  
 @Override  
 **public void** onItemSelected(AdapterView<?> parent, View view, **int** position, **long** id) {  
 String item = parent.getItemAtPosition(position).toString();  
  
 Toast.*makeText*(parent.getContext(), **"Selected: "** + item, Toast.***LENGTH\_LONG***).show();  
 }  
  
 @Override  
 **public void** onNothingSelected(AdapterView<?> adapterView) {  
  
 }  
}

**6) Radio Button(Write a Program to Select gender using radio button)**

**XML :-**

<?xmlversion=*"1.0"*encoding=*"utf-8"*?>

<LinearLayoutxmlns:android=*"http://schemas.android.com/apk/res/android"*

android:layout\_width=*"fill\_parent"*

android:layout\_height=*"fill\_parent"*

android:orientation=*"vertical"*>

<RadioGroup

android:id=*"@+id/radioSex"*

android:layout\_width=*"wrap\_content"*

android:layout\_height=*"wrap\_content"*>

<RadioButton

android:id=*"@+id/radioMale"*

android:layout\_width=*"wrap\_content"*

android:layout\_height=*"wrap\_content"*

android:text=*"@string/radio\_male"*

android:checked=*"true"*/>

<RadioButton

android:id=*"@+id/radioFemale"*

android:layout\_width=*"wrap\_content"*

android:layout\_height=*"wrap\_content"*

android:text=*"@string/radio\_female"*/>

</RadioGroup>

<Button

android:id=*"@+id/btnDisplay"*

android:layout\_width=*"wrap\_content"*

android:layout\_height=*"wrap\_content"*

android:text=*"@string/btn\_display"*/>

</LinearLayout>

**JAVA :-**

**package** com.example.dell.myapplication;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.view.View.OnClickListener;  
**import** android.widget.Button;  
**import** android.widget.RadioButton;  
**import** android.widget.RadioGroup;  
**import** android.widget.Toast;  
  
**public class** MainActivity**extends** Activity {  
  
**private** RadioGroup**radioSexGroup**;  
**private** RadioButton**radioSexButton**;  
**private** Button **btnDisplay**;  
  
@Override  
**public void** onCreate(Bundle savedInstanceState) {  
**super**.onCreate(savedInstanceState);  
setContentView(R.layout.***activity\_main***);  
  
addListenerOnButton();  
  
 }  
  
**public void** addListenerOnButton() {  
  
**radioSexGroup**= (RadioGroup) findViewById(R.id.***radioSex***);  
**btnDisplay**= (Button) findViewById(R.id.***btnDisplay***);  
  
**btnDisplay**.setOnClickListener(**new** OnClickListener() {  
  
@Override  
**public void** onClick(View v) {  
  
*// get selected radio button from radioGroup***int**selectedId = **radioSexGroup**.getCheckedRadioButtonId();  
  
*// find the radiobutton by returned id***radioSexButton**= (RadioButton) findViewById(selectedId);  
  
Toast.*makeText*(MainActivity.**this**,  
**radioSexButton**.getText(), Toast.***LENGTH\_SHORT***).show();  
  
 }  
  
 });  
  
 }  
}

**7) Spinner(Write a Program To Spin the four items)**

**XML :-**

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.constraint.ConstraintLayoutxmlns: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:id="@+id/myLinearLayout"  
android:layout\_width="fill\_parent"  
android:layout\_height="fill\_parent"  
android:orientation="vertical"  
xmlns:android="http://schemas.android.com/apk/res/android"**>  
<**TextView  
android:id="@+id/selection"  
android:layout\_width="fill\_parent"  
android:layout\_height="wrap\_content"  
android:background="#ff0033cc"  
android:textColor="#ff0000"  
android:textSize="25dp"  
android:textStyle="bold"**>  
</**TextView**>  
<**Spinner  
android:id="@+id/spinner"  
android:layout\_width="fill\_parent"  
android:layout\_height="wrap\_content"**>  
</**Spinner**>  
</**LinearLayout**>  
  
  
</**android.support.constraint.ConstraintLayout**>

**JAVA :-**

**package** com.example.dell.myapplication;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.AdapterView;  
**import** android.widget.ArrayAdapter;  
**import** android.widget.Spinner;  
**import** android.widget.TextView;  
  
**public class** MainActivity**extends** Activity **implements**AdapterView.OnItemSelectedListener {  
TextView**selection**;  
 String[] **items** = { **"an double os"**, **"COMPUTER"**, **"MOUSE"**, **"KEYBORD"**, **"MONITOR"**,  
**"HARD DISK"**, **"LAPTOP"**, **"PRINTER"**, **"SCANNER"**, **"SPEAKER"** };  
  
@Override  
**public void** onCreate(Bundle icicle) {  
**super**.onCreate(icicle);  
setContentView(R.layout.***activity\_main***);  
**selection** = (TextView) findViewById(R.id.***selection***);  
  
 Spinner spin = (Spinner) findViewById(R.id.***spinner***);  
spin.setOnItemSelectedListener(**this**);  
  
ArrayAdapteraa = **new** ArrayAdapter(**this**,android.R.layout.***simple\_spinner\_item***,**items**);  
  
aa.setDropDownViewResource(  
android.R.layout.***simple\_spinner\_dropdown\_item***);  
spin.setAdapter(aa);  
 }  
  
**public void** onItemSelected(AdapterView<?> parent, View v, **int**position,  
**long** id) {  
**selection**.setText(**items**[position]);  
 }  
  
**public void** onNothingSelected(AdapterView<?> parent) {  
**selection**.setText(**""**);  
 }  
}*//class*

**8) Timer Program (Write a Program to display Stop watch)**

**XML:-**

**package** com.example.s5\_5\_17.myapplication;

**import** android.os.Bundle;

**import** android.app.Activity;

**import** android.view.Menu;

**import** android.widget.GridView;

**public class** Grid **extends** Activity {

@Override

**protected void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.***activity\_grid***);

GridView gridview = (GridView) findViewById(R.id.***gridview***);

gridview.setAdapter(**new** ImageAdapter(**this**));

}

}

(ImageAdapter.java)

**package** com.example.s5\_5\_17.myapplication;

**import** android.content.Context;

**import** android.view.View;

**import** android.view.ViewGroup;

**import** android.widget.BaseAdapter;

**import** android.widget.GridView;

**import** android.widget.ImageView;

**public class** ImageAdapter **extends** BaseAdapter {

**private** Context **mContext**;

*// Constructor*

**public** ImageAdapter(Context c) {

**mContext** = c;

}

**public int** getCount() {

**return mThumbIds**.**length**;

}

**public** Object getItem(**int** position) {

**return null**;

}

**public long** getItemId(**int** position) {

**return** 0;

}

*// create a new ImageView for each item referenced by the Adapter*

**public** View getView(**int** position, View convertView, ViewGroup parent) {

ImageView imageView;

**if** (convertView == **null**) {

imageView = **new** ImageView(**mContext**);

imageView.setLayoutParams(**new** GridView.LayoutParams(85, 85));

imageView.setScaleType(ImageView.ScaleType.***CENTER\_CROP***);

imageView.setPadding(18, 18, 18, 18);

} **else** {

imageView = (ImageView) convertView;

}

imageView.setImageResource(**mThumbIds**[position]);

**return** imageView;

}

*// Keep all Images in array*

**public** Integer[] **mThumbIds** = {

R.drawable.***sample2***, R.drawable.***sample3***,

R.drawable.***sample4***, R.drawable.***sample5***,

R.drawable.***sample6***, R.drawable.***sample7***,

R.drawable.***sample0***, R.drawable.***sample1***,

R.drawable.***sample2***, R.drawable.***sample3***,

R.drawable.***sample4***, R.drawable.***sample5***,

R.drawable.***sample6***, R.drawable.***sample7***,

R.drawable.***sample0***, R.drawable.***sample1***,

R.drawable.***sample2***, R.drawable.***sample3***,

R.drawable.***sample4***, R.drawable.***sample5***,

R.drawable.***sample6***, R.drawable.***sample7***

};

}

java ()

**JAVA :-**

**package** com.spinner.user.timer8;  
  
  
**import** android.os.Bundle;  
**import** android.os.Handler;  
**import** android.os.SystemClock;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.view.View;  
**import** android.widget.ArrayAdapter;  
**import** android.widget.Button;  
**import** android.widget.ListView;  
**import** android.widget.TextView;  
**import** java.util.ArrayList;  
**import** java.util.Arrays;  
**import** java.util.List;  
**public class** MainActivity **extends** AppCompatActivity {  
 TextView **textView** ;  
 Button **start**, **pause**, **reset**, **lap** ;  
 **long MillisecondTime**, **StartTime**, **TimeBuff**, **UpdateTime** = 0L ;  
 Handler **handler**;  
 **int Seconds**, **Minutes**, **MilliSeconds** ;  
 ListView **listView** ;  
 String[] **ListElements** = **new** String[] { };  
 List<String> **ListElementsArrayList** ;  
 ArrayAdapter<String> **adapter** ;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **textView** = (TextView)findViewById(R.id.***textView***);  
 **start** = (Button)findViewById(R.id.***button***);  
 **pause** = (Button)findViewById(R.id.***button2***);  
 **reset** = (Button)findViewById(R.id.***button3***);  
 **lap** = (Button)findViewById(R.id.***button4***) ;  
 **listView** = (ListView)findViewById(R.id.***listview1***);  
 **handler** = **new** Handler() ;  
 **ListElementsArrayList** = **new** ArrayList<String>(Arrays.*asList*(**ListElements**));  
 **adapter** = **new** ArrayAdapter<String>(MainActivity.**this**, android.R.layout.***simple\_list\_item\_1***, **ListElementsArrayList** );  
 **listView**.setAdapter(**adapter**);  
 **start**.setOnClickListener(**new** View.OnClickListener() {  
 @Override **public void** onClick(View view) {  
 **StartTime** = SystemClock.*uptimeMillis*();  
 **handler**.postDelayed(**runnable**, 0);  
 **reset**.setEnabled(**false**); } });  
 **pause**.setOnClickListener(**new** View.OnClickListener() {  
 @Override **public void** onClick(View view) {  
 **TimeBuff** += **MillisecondTime**; **handler**.removeCallbacks(**runnable**);  
 **reset**.setEnabled(**true**); } });  
 **reset**.setOnClickListener(**new** View.OnClickListener() {  
 @Override **public void** onClick(View view) {  
 **MillisecondTime** = 0L ;  
 **StartTime** = 0L ;  
 **TimeBuff** = 0L ;  
 **UpdateTime** = 0L ;  
 **Seconds** = 0 ;  
 **Minutes** = 0 ;  
 **MilliSeconds** = 0 ;  
 **textView**.setText(**"00:00:00"**);  
 **ListElementsArrayList**.clear();  
 **adapter**.notifyDataSetChanged();  
 }  
 });  
 **lap**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 **ListElementsArrayList**.add(**textView**.getText().toString());  
 **adapter**.notifyDataSetChanged();  
 }  
 });  
 }  
 **public** Runnable **runnable** = **new** Runnable() {  
 **public void** run() {  
 **MillisecondTime** = SystemClock.*uptimeMillis*() - **StartTime**;  
 **UpdateTime** = **TimeBuff** + **MillisecondTime**;  
 **Seconds** = (**int**) (**UpdateTime** / 1000);  
 **Minutes** = **Seconds** / 60; **Seconds** = **Seconds** % 60;  
 **MilliSeconds** = (**int**) (**UpdateTime** % 1000);  
 **textView**.setText(**""** + **Minutes** + **":"** + String.*format*(**"%02d"**, **Seconds**) + **":"** + String.*format*(**"%03d"**, **MilliSeconds**));  
 **handler**.postDelayed(**this**, 0);  
 }  
 };  
}

**-------------------------------------------------------------------------------------------------------------------------------**

1. **Check box(Write a Program to check the items listed)**

**XML:-**

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.constraint.ConstraintLayoutxmlns: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"**>  
  
<**LinearLayoutxmlns:android="http://schemas.android.com/apk/res/android"  
android:layout\_width="fill\_parent"  
android:layout\_height="fill\_parent"  
android:orientation="vertical"** >  
  
<**CheckBox  
android:id="@+id/android"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:text="chk\_first"** />  
  
<**CheckBox  
android:id="@+id/java"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:text="chk\_second"  
android:checked="true"** />  
  
<**CheckBox  
android:id="@+id/opencv"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:text="chk\_third"** />  
  
<**CheckBox  
android:id="@+id/symbian"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:text="chk\_fourth"** />  
  
<**Button  
android:id="@+id/Clickhere"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:text="btn\_click"** />  
  
</**LinearLayout**>  
  
  
  
</**android.support.constraint.ConstraintLayout**>

**JAVA :-**

**package** com.example.dell.myapplication;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.view.View.OnClickListener;  
**import** android.widget.Button;  
**import** android.widget.CheckBox;  
**import** android.widget.Toast;  
  
**public class** MainActivity**extends** Activity {  
  
**private** CheckBox**android**, **java**, **opencv**, **symbian**;  
**private** Button **Clickhere**;  
  
@Override  
**public void** onCreate(Bundle savedInstanceState) {  
  
**super**.onCreate(savedInstanceState);  
setContentView(R.layout.***activity\_main***);  
  
**android** = (CheckBox) findViewById(R.id.***android***);  
**java** = (CheckBox) findViewById(R.id.***java***);  
**opencv**= (CheckBox) findViewById(R.id.***opencv***);  
**symbian**= (CheckBox) findViewById(R.id.***symbian***);  
**Clickhere**= (Button) findViewById(R.id.***Clickhere***);  
  
  
  
**Clickhere**.setOnClickListener(**new** OnClickListener() {  
  
@Override  
**public void** onClick(View v) {  
  
*// Create string buffer to*StringBuffer OUTPUT = **new** StringBuffer();  
OUTPUT.append(**"Android : "**)  
 .append(**android**.isChecked());  
  
OUTPUT.append(**"\nJava : "**).append(  
**java**.isChecked());  
  
OUTPUT.append(**"\nOpenCV :"**).append(  
**opencv**.isChecked());  
  
OUTPUT.append(**"\nSymbian :"**).append(  
**symbian**.isChecked());  
  
Toast.*makeText*(MainActivity.**this**, OUTPUT.toString(),  
Toast.***LENGTH\_LONG***).show();  
  
 }  
 });  
  
 }  
}

**------------------------------------------------------------------------------------------------------------------------------------------**

**10)Date& Time Picker**

**Xml :-**

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

**<LinearLayout**

**android:id="@+id/widget28"**

**android:layout\_width="fill\_parent"**

**android:layout\_height="fill\_parent"**

**android:orientation="vertical"**

**xmlns:android="http://schemas.android.com/apk/res/android">**

**<TextView**

**android:id="@+id/lblDateAndTime"**

**android:layout\_width="fill\_parent"**

**android:layout\_height="67dp"**

**android:background="#FFFFFF"**

**android:textStyle="bold">**

**</TextView>**

**<Button**

**android:id="@+id/btnDate"**

**android:layout\_width="fill\_parent"**

**android:layout\_height="wrap\_content"**

**android:text="Set the Date">**

**</Button>**

**<Button**

**android:id="@+id/btnTime"**

**android:layout\_width="fill\_parent"**

**android:layout\_height="wrap\_content"**

**android:text="Set the Time" />**

**</LinearLayout>**

**JAVA :-**

**package com.example.s5\_ramees.date\_time;**

**importandroid.app.Activity;**

**importandroid.os.Bundle;**

**importandroid.app.DatePickerDialog;**

**importandroid.app.TimePickerDialog;**

**importandroid.view.View;**

**importandroid.widget.Button;**

**importandroid.widget.DatePicker;**

**importandroid.widget.TimePicker;**

**importandroid.widget.TextView;**

**importjava.text.DateFormat;**

**importjava.util.Calendar;**

**public class MainActivity extends Activity {**

**DateFormatfmtDateAndTime = DateFormat.getDateTimeInstance();**

**TextViewlblDateAndTime;**

**Calendar myCalendar = Calendar.getInstance();**

**DatePickerDialog.OnDateSetListener d = new DatePickerDialog.OnDateSetListener() {**

**public void onDateSet(DatePicker view, int year, intmonthOfYear,**

**intdayOfMonth) {**

**myCalendar.set(Calendar.YEAR, year);**

**myCalendar.set(Calendar.MONTH, monthOfYear);**

**myCalendar.set(Calendar.DAY\_OF\_MONTH, dayOfMonth);**

**updateLabel();**

**}**

**};**

**TimePickerDialog.OnTimeSetListener t = new TimePickerDialog.OnTimeSetListener() {**

**public void onTimeSet(TimePicker view, inthourOfDay, int minute) {**

**myCalendar.set(Calendar.HOUR\_OF\_DAY, hourOfDay);**

**myCalendar.set(Calendar.MINUTE, minute);**

**updateLabel();**

**}**

**};**

**private void updateLabel() {**

**lblDateAndTime.setText(fmtDateAndTime.format(myCalendar.getTime()));**

**}**

**@Override**

**public void onCreate(Bundle icicle) {**

**super.onCreate(icicle);**

**setContentView(R.layout.activity\_main);**

**lblDateAndTime = (TextView) findViewById(R.id.lblDateAndTime);**

**Button btnDate = (Button) findViewById(R.id.btnDate);**

**btnDate.setOnClickListener(new View.OnClickListener() {**

**public void onClick(View v) {**

**newDatePickerDialog(MainActivity.this, d, myCalendar**

**.get(Calendar.YEAR), myCalendar.get(Calendar.MONTH),**

**myCalendar.get(Calendar.DAY\_OF\_MONTH)).show();**

**}**

**});**

**Button btnTime = (Button) findViewById(R.id.btnTime);**

**btnTime.setOnClickListener(new View.OnClickListener() {**

**public voidonClick(View v) {**

**newTimePickerDialog(MainActivity.this, t, myCalendar**

**.get(Calendar.HOUR\_OF\_DAY), myCalendar**

**.get(Calendar.MINUTE), true).show();**

**}**

**});**

**updateLabel();**

**}// onCreate**

**} // class**

**11)**

**XML:-**

*<?***xml version="1.0" encoding="utf-8"***?>*<**GridView xmlns:android="http://schemas.android.com/apk/res/android"  
 android:id="@+id/gridview"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="fill\_parent"  
 android:columnWidth="90dp"  
 android:numColumns="auto\_fit"  
 android:verticalSpacing="20dp"  
 android:horizontalSpacing="20dp"  
 android:stretchMode="columnWidth"  
 android:gravity="center"** />

**JAVA:-**

**package** com.example.s5\_5\_17.myapplication;  
  
**import** android.os.Bundle;  
**import** android.app.Activity;  
**import** android.view.Menu;  
**import** android.widget.GridView;  
  
**public class** Grid **extends** Activity {  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_grid***);  
  
 GridView gridview = (GridView) findViewById(R.id.***gridview***);  
 gridview.setAdapter(**new** ImageAdapter(**this**));  
 }  
}

(ImageAdapter.java)

**package** com.example.s5\_5\_17.myapplication;  
  
**import** android.content.Context;  
  
**import** android.view.View;  
**import** android.view.ViewGroup;  
  
**import** android.widget.BaseAdapter;  
**import** android.widget.GridView;  
**import** android.widget.ImageView;  
  
**public class** ImageAdapter **extends** BaseAdapter {  
 **private** Context **mContext**;  
  
 *// Constructor* **public** ImageAdapter(Context c) {  
 **mContext** = c;  
 }  
  
 **public int** getCount() {  
 **return mThumbIds**.**length**;  
 }  
  
 **public** Object getItem(**int** position) {  
 **return null**;  
 }  
  
 **public long** getItemId(**int** position) {  
 **return** 0;  
 }  
  
 *// create a new ImageView for each item referenced by the Adapter* **public** View getView(**int** position, View convertView, ViewGroup parent) {  
 ImageView imageView;  
  
 **if** (convertView == **null**) {  
 imageView = **new** ImageView(**mContext**);  
 imageView.setLayoutParams(**new** GridView.LayoutParams(85, 85));  
 imageView.setScaleType(ImageView.ScaleType.***CENTER\_CROP***);  
 imageView.setPadding(18, 18, 18, 18);  
 } **else** {  
 imageView = (ImageView) convertView;  
 }  
 imageView.setImageResource(**mThumbIds**[position]);  
 **return** imageView;  
 }  
  
 *// Keep all Images in array* **public** Integer[] **mThumbIds** = {  
 R.drawable.***sample2***, R.drawable.***sample3***,  
 R.drawable.***sample4***, R.drawable.***sample5***,  
 R.drawable.***sample6***, R.drawable.***sample7***,  
 R.drawable.***sample0***, R.drawable.***sample1***,  
 R.drawable.***sample2***, R.drawable.***sample3***,  
 R.drawable.***sample4***, R.drawable.***sample5***,  
 R.drawable.***sample6***, R.drawable.***sample7***,  
 R.drawable.***sample0***, R.drawable.***sample1***,  
 R.drawable.***sample2***, R.drawable.***sample3***,  
 R.drawable.***sample4***, R.drawable.***sample5***,  
 R.drawable.***sample6***, R.drawable.***sample7*** };  
}

java ()

**12)**

**XML :-**

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout 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"  
 tools:context="com.example.s5\_9\_12\_s6.image.MainActivity"**>  
 <**ImageView  
 android:id="@+id/imgview"  
 android:layout\_width="200dp" android:layout\_height="250dp"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"** />  
 <**Button  
 android:id="@+id/btn\_selectimage"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Choose image"  
 android:layout\_below="@+id/imgview"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="26dp"** />  
</**RelativeLayout**>

**JAVA :-**

**package** com.example.s5\_9\_12\_s6.image;  
  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.content.Intent;  
**import** android.net.Uri;  
**import** android.provider.MediaStore;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle; **import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.ImageView;  
**import** java.net.URL;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 Uri **imgurl**;  
 ImageView **imageView**;  
 @Override  
 **protected void** onActivityResult(**int** requestCode, **int** resultCode, Intent data) { **super**.onActivityResult(requestCode, resultCode, data); **if**(resultCode==***RESULT\_OK*** && requestCode==100){  
 **imgurl**=data.getData();  
 **imageView**.setImageURI(**imgurl**);  
 }  
 }  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);  
 **imageView**=(ImageView)findViewById(R.id.***imgview***);  
 Button btnChooseImg=(Button)findViewById(R.id.***btn\_selectimage***);  
 btnChooseImg.setOnClickListener(**new** View.OnClickListener() { @Override  
 **public void** onClick(View v) {  
 Intent intentgallery=**new** Intent(Intent.***ACTION\_PICK***, MediaStore.Images.Media.***INTERNAL\_CONTENT\_URI***);  
 startActivityForResult(intentgallery,100);  
 }  
 });  
 }  
 }

**-----------------------------------------------------------------------------------------------**

**13)List View**

**XML :-**

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

**<TextViewxmlns:android="http://schemas.android.com/apk/res/android"**

**android:layout\_width="fill\_parent"**

**android:layout\_height="fill\_parent"**

**android:padding="10dp"**

**android:textSize="20sp" >**

**</TextView>**

**JAVA :-**

**package com.example.s5\_ramees.listview;**

**importandroid.app.ListActivity;**

**importandroid.os.Bundle;**

**importandroid.view.View;**

**importandroid.widget.AdapterView;**

**importandroid.widget.ArrayAdapter;**

**importandroid.widget.ListView;**

**importandroid.widget.TextView;**

**importandroid.widget.Toast;**

**importandroid.widget.AdapterView.OnItemClickListener;**

**public class Listview extends ListActivity {**

**static final String[] FRUITS = new String[] { "Apple", "Avocado", "Banana",**

**"Blueberry", "Coconut", "Durian", "Guava", "Kiwifruit",**

**"Jackfruit", "Mango", "Olive", "Pear", "Sugar-apple" };**

**@Override**

**public void onCreate(Bundle savedInstanceState) {**

**super.onCreate(savedInstanceState);**

**setListAdapter(new ArrayAdapter<String>(this, R.layout.activity\_listview,FRUITS));**

**ListViewlistView = getListView();**

**listView.setTextFilterEnabled(true);**

**listView.setOnItemClickListener(new OnItemClickListener() {**

**public void onItemClick(AdapterView<?> parent, View view,**

**int position, long id) {**

**Toast.makeText(getApplicationContext(),**

**((TextView) view).getText(), Toast.LENGTH\_SHORT).show();**

**}**

**});**

**}**

**}**

**14) Log In(optional- Write a program for Log in Using username and password)**

**XML:-**

*<?***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"  
 tools:context="com.example.s5\_3\_4.login.Login"**>  
  
 <**EditText  
 android:id="@+id/et1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="user name"  
 android:textSize="25sp"**/>  
 <**EditText  
 android:id="@+id/et2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="password"  
 android:textSize="25sp"**/>  
 <**Button  
 android:id="@+id/btn"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="login"  
 android:textSize="25sp"**/>  
</**LinearLayout**>

**JAVA:-**

**package** com.example.s5\_3\_4.login;  
  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.Toast;  
  
  
**public class** Login **extends** AppCompatActivity {  
  
 EditText **et1**, **et2**;  
 Button **btn**;  
  
 @Override  
 **public void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_login***);  
 **et1** = (EditText) findViewById(R.id.***et1***);  
 **et2** = (EditText) findViewById(R.id.***et2***);  
 **btn** = (Button) findViewById(R.id.***btn***);  
  
  
 **btn**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 **if** (**et1**.getText().toString().equals(**"rashid"**) && **et2**.getText().toString().equals(**"12345"**)) {  
  
 Toast.*makeText*(getApplicationContext(),  
 **"Hello World"**, Toast.***LENGTH\_LONG***).show();  
 } **else** {  
 Toast.*makeText*(getApplicationContext(),  
 **"errrrrrr"**, Toast.***LENGTH\_LONG***).show();  
 }  
 }  
 });  
 }  
}

**------------------------------------------------------------------------------------------------------------------------------------------**