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LABORATORY MANUAL

Department Of Computer Engineering

Mobile application and development

Class: -TE
Semester: - VI

Prepared by Mrs. J.V.Khalkar

CONTENTS

MOBILE APPLICATION DEVELOPMENT LAB (13A05711)

Date:

1) **Develop an application that uses GUI components ,Fonts and colors.**

Description:

1)Open eclipse or android studio and select new android project .
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next
4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file
7)Now you can see the Graphics layout window.

Source code:

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:orientation="vertical" >
<TextView
android:id="@+id/textView1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_margin="20sp"
android:gravity="center"
android:text="HELLO WORLD"
android:textSize="20sp"
android:textStyle="bold" />
<Button

android:id="@+id/button1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:gravity="center"
android:text="Change font size"
android:textSize="20sp" />
<Button
android:id="@+id/button2"
```

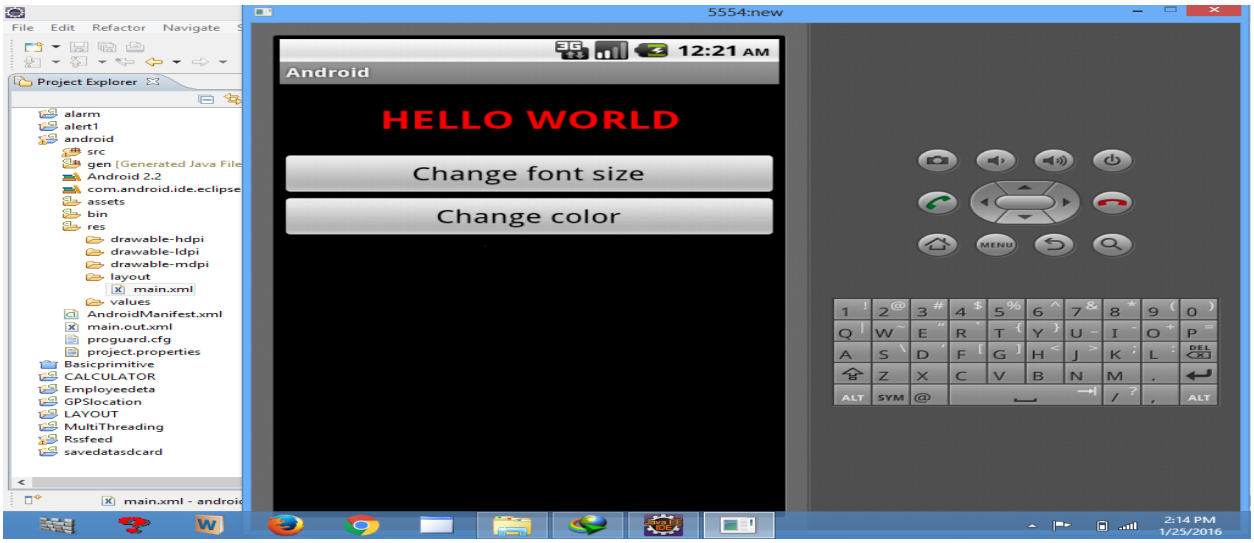
```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:gravity="center"
android:text="Change color"
android:textSize="20sp" />
<Button
android:id="@+id/button3"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:gravity="center"
android:text="Change font"
android:textSize="20sp" />
</LinearLayout>


import android.app.Activity;

import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class AndroidActivity extends Activity {
float font =24;
int i=1;
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
final TextView t1=(TextView) findViewById(R.id.textView1);
Button b1 = (Button) findViewById(R.id.button1);
b1.setOnClickListener(new View.OnClickListener() {
public void onClick(View view) {
t1.setTextSize(font);
font=font+4;
if(font==40)
font=20;
}
});
```

```
Button b2 = (Button) findViewById(R.id.button2);
b2.setOnClickListener(new View.OnClickListener() {
public void onClick(View view) {
switch(i)
{
case 1:
t1.setTextColor(Color.parseColor("#0000FF"));
break;
case 2:
t1.setTextColor(Color.parseColor("#00FF00"));
break;
case 3:
t1.setTextColor(Color.parseColor("#FF0000"));
break;
case 4:
t1.setTextColor(Color.parseColor("#800000"));
break;
}
i++;
if(i==5)
i=1;
}
});
}
}
```

OUTPUT:



2) Develop an application that uses layout managers.

Description:

1)Open eclipse or android studio and select new android project
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next
4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file.

Source code :

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:id="@+id/relativeLayout1"
android:layout_width="fill_parent"
android:layout_height="fill_parent" >
<LinearLayout
android:id="@+id/linearLayout1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentLeft="true"
android:layout_alignParentRight="true"
android:layout_alignParentTop="true" >
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center"
android:text="ADDITION"
android:textSize="20dp" >
</TextView>
</LinearLayout>
<LinearLayout
android:id="@+id/linearLayout2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
```

```
android:layout_alignParentLeft="true"
android:layout_alignParentRight="true"
android:layout_below="@+id/linearLayout1" >
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="ENTER NO 1" >
</TextView>
<EditText
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_weight="0.20"
android:id="@+id/edittext1"
android:inputType="number">
</EditText>
</LinearLayout>
<LinearLayout
android:id="@+id/linearLayout3"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentLeft="true"
android:layout_alignParentRight="true"
android:layout_below="@+id/linearLayout2" >
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="ENTER NO 2" >
</TextView>
<EditText
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_weight="0.20"
android:id="@+id/edittext2"
android:inputType="number">
</EditText>
</LinearLayout>
<LinearLayout
android:id="@+id/linearLayout4"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
```

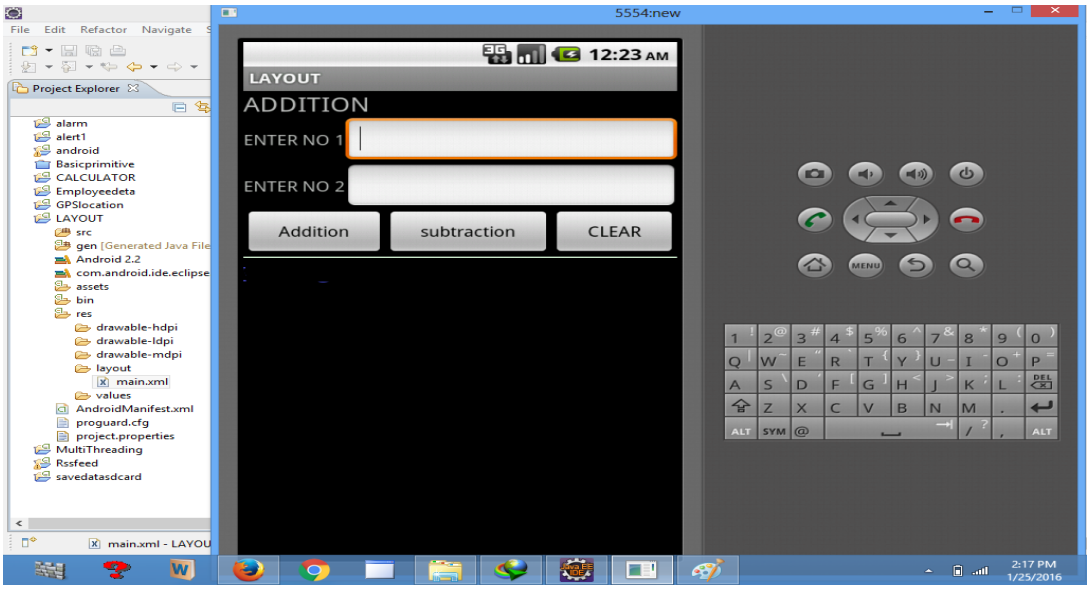
```
android:layout_alignParentLeft="true"
android:layout_alignParentRight="true"
android:layout_below="@+id/linearLayout3" >
<Button
android:layout_width="wrap_content"
android:id="@+id/button1"
android:layout_height="wrap_content"
android:text="Addition"
android:layout_weight="0.50" />
<Button
android:layout_width="wrap_content"
android:id="@+id/button3"
android:layout_height="wrap_content"
android:text="subtraction"
android:layout_weight="0.50" />
<Button
android:layout_width="wrap_content"
android:id="@+id/button2"
android:layout_height="wrap_content"
android:text="CLEAR"
android:layout_weight="0.50" />
</LinearLayout>
<View
android:layout_height="2px"
android:layout_width="fill_parent"
android:layout_below="@+id/linearLayout4"
android:background="#DDFFDD"/>
</RelativeLayout>
```

```
package layout.ne;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class LAYOUTActivity extends Activity {
```

```
/** Called when the activity is first created. */
EditText txtData1,txtData2;
float num1,num2,result1,result2;
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
Button add = (Button) findViewById(R.id.button1);
add.setOnClickListener(new OnClickListener() {
public void onClick(View v) {
try
{
txtData1 = (EditText) findViewById(R.id.edittext1);
txtData2 = (EditText) findViewById(R.id.edittext2);
num1 = Float.parseFloat(txtData1.getText().toString());
num2 = Float.parseFloat(txtData2.getText().toString());
result1=num1+num2;
Toast.makeText(getBaseContext(),"ANSWER:"+result1,Toast.LENGTH_SHORT).show();
}
catch(Exception e)
{
Toast.makeText(getBaseContext(), e.getMessage(),
Toast.LENGTH_SHORT).show();
}
}
});
Button sub = (Button) findViewById(R.id.button3);
sub.setOnClickListener(new OnClickListener() {
public void onClick(View v) {
try
{
txtData1 = (EditText) findViewById(R.id.edittext1);
txtData2 = (EditText) findViewById(R.id.edittext2);
num1 = Float.parseFloat(txtData1.getText().toString());
num2 = Float.parseFloat(txtData2.getText().toString());
result2=num1-num2;
Toast.makeText(getBaseContext(),"ANSWER:"+result2,Toast.LENGTH_SHORT).show();
}
catch(Exception e)
{
```

```
Toast.makeText(getBaseContext(), e.getMessage(),
Toast.LENGTH_SHORT).show();
}
}
});
Button clear = (Button) findViewById(R.id.button2);
clear.setOnClickListener(new OnClickListener() {
public void onClick(View v) {
try
{
txtData1.setText("");
txtData2.setText("");
}
catch(Exception e)
{
Toast.makeText(getBaseContext(), e.getMessage(),
Toast.LENGTH_SHORT).show();
}
} });
}  }
```

Output:



3) **Develop a native calculator application.**

Source code & Steps::

Main.xml coding

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:layout_width="fill_parent"
android:layout_height="fill_parent">
<LinearLayout
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/linearLayout1"
android:layout_marginLeft="10pt"
android:layout_marginRight="10pt"
android:layout_marginTop="3pt">
<EditText
android:layout_weight="1"
android:layout_height="wrap_content"
android:layout_marginRight="5pt"
android:id="@+id/etNum1"
android:layout_width="match_parent"
android:inputType="numberDecimal">
```

```
</EditText>
<EditText
android:layout_height="wrap_content"
android:layout_weight="1"
android:layout_marginLeft="5pt"
android:id="@+id/etNum2"
android:layout_width="match_parent"
android:inputType="numberDecimal">
</EditText>
</LinearLayout>
<LinearLayout
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/linearLayout2"
android:layout_marginTop="3pt"
android:layout_marginLeft="5pt"
android:layout_marginRight="5pt">
<Button
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:layout_weight="1"
android:text="+"
android:textSize="15pt"
android:id="@+id/btnAdd">
</Button>
<Button
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:layout_weight="1"
android:text="-"
android:textSize="15pt"
android:id="@+id/btnSub">
</Button>
<Button
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:layout_weight="1"
android:text="*"
android:textSize="15pt"
android:id="@+id/btnMult">
```

```
</Button>
<Button
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:layout_weight="1"
android:text="/"
android:textSize="15pt"
android:id="@+id/btnDiv">
</Button>
</LinearLayout>
<TextView
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:layout_marginLeft="5pt"
android:layout_marginRight="5pt"
android:textSize="12pt"
android:layout_marginTop="3pt"
android:id="@+id/tvResult"
android:gravity="center_horizontal">
</TextView>
</LinearLayout>
```

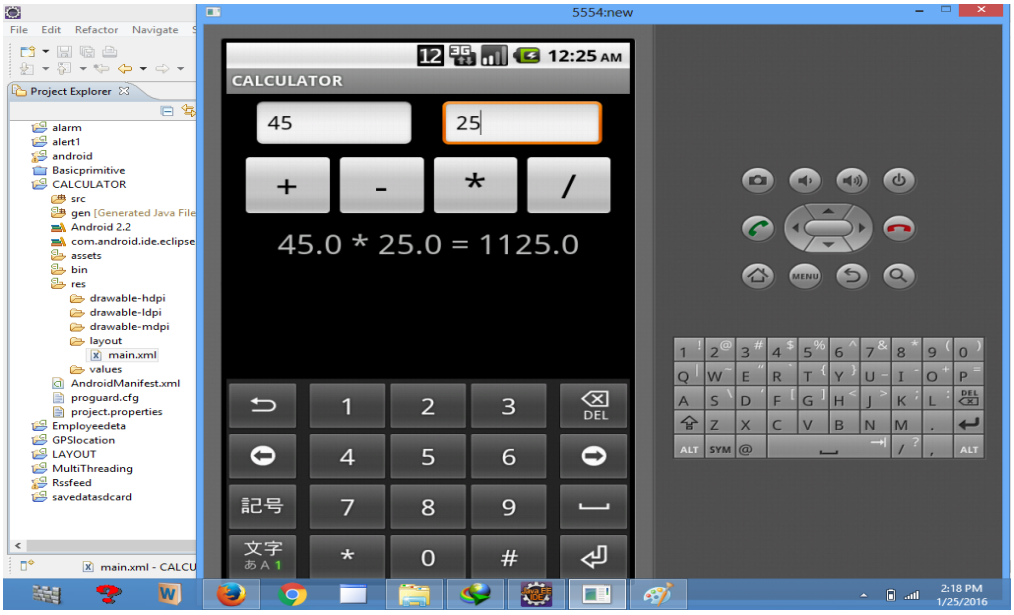
MainActivity.java coding

```
package CALCU.CALU;
import android.app.Activity;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class CALCULATORActivity extends Activity implements OnClickListener {
EditText input1;
EditText input2;
Button addition;
Button subtraction;
Button multiplication;
Button division;
```

```
TextView tvResult;
String oper = "";
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
input1 = (EditText) findViewById(R.id.etNum1);
input2 = (EditText) findViewById(R.id.etNum2);
addition = (Button) findViewById(R.id.btnAdd);
subtraction = (Button) findViewById(R.id.btnSub);
multiplication = (Button) findViewById(R.id.btnMult);
division = (Button) findViewById(R.id.btnDiv);
tvResult = (TextView) findViewById(R.id.tvResult);
// set a listener
addition.setOnClickListener(this);
subtraction.setOnClickListener(this);
multiplication.setOnClickListener(this);
division.setOnClickListener(this);
}
@Override
public void onClick(View v) {
// TODO Auto-generated method stub
float num1 = 0;
float num2 = 0;
float result = 0;
// check if the fields are empty
if (TextUtils.isEmpty(input1.getText().toString())
|| TextUtils.isEmpty(input2.getText().toString())) {
return;
}
// read EditText and fill variables with numbers
num1 = Float.parseFloat(input1.getText().toString());
num2 = Float.parseFloat(input2.getText().toString());
// defines the button that has been clicked and performs the corresponding operation
// write operation into oper, we will use it later for output
switch (v.getId()) {
case R.id.btnAdd:
oper = "+";
result = num1 + num2;
break;
```

```
case R.id.btnSub:
oper = "-";
result = num1 - num2;
break;
case R.id.btnMult:
oper = "*";
result = num1 * num2;
break;
case R.id.btnDiv:
oper = "/";
result = num1 / num2;
break;
default:
break;
}
// form the output line
tvResult.setText(num1 + " " + oper + " " + num2 + " = " + result);}  }
```

OUTPUT:



4) **Write an application that draws graphical primitives.**

Description:

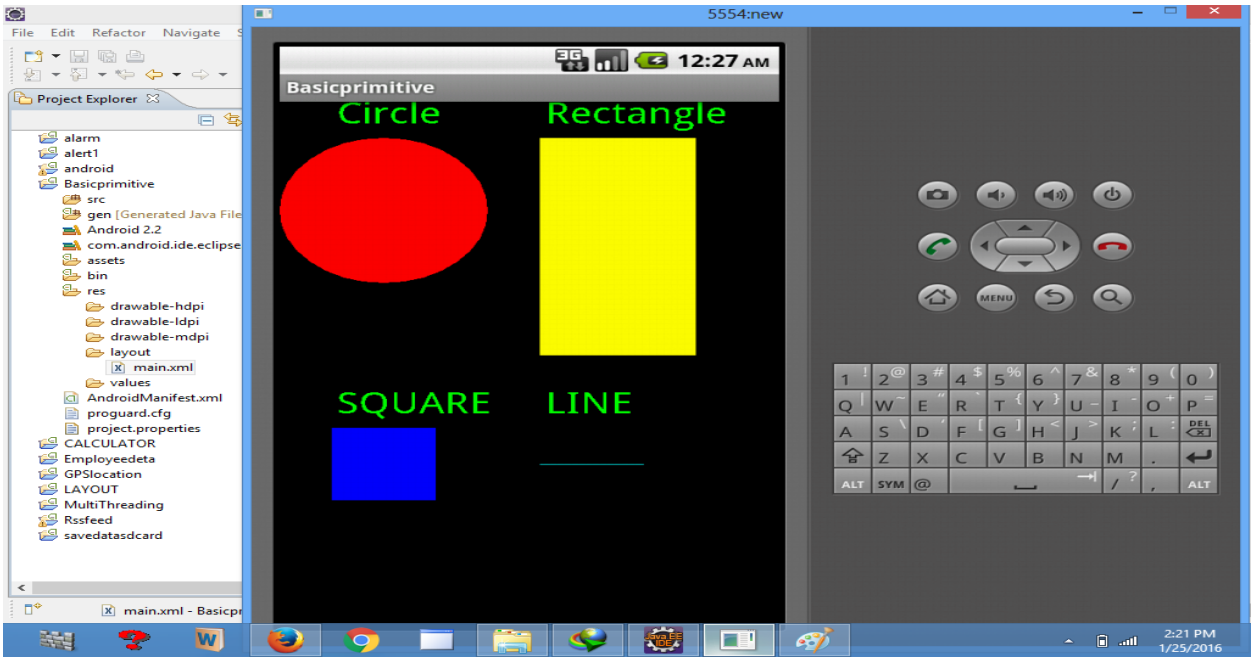
1. Open eclipse or android studio and select new android project
2. Give project name and select next
3. Choose the android version.Choose the lowest android version(Android 2.2) and select next
4. Enter the package name.package name must be two word seprated by comma and click finish
5. Go to package explorer in the left hand side.select our project.
6. Go to res folder and select layout.Double click the main.xml file.Don't change anything in layout.Leave as default.
7. Now select mainactivity.java file and type the following code.

Source code:

```
package Basic.primitive;
import android.app.Activity;
import android.content.Context;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.os.Bundle;
```

```
import android.view.View;
public class BasicprimitiveActivity extends Activity {
/** Called when the activity is first created. */
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(new myview(this));
}
private class myview extends View
{
public myview(Context context)
{
super(context);
}
@Override
protected void onDraw(Canvas canvas)
{
super.onDraw(canvas);
Paint paint=new Paint();
paint.setTextSize(40);
paint.setColor(Color.GREEN);
canvas.drawText("Circle", 55, 30, paint);
paint.setColor(Color.RED);
canvas.drawCircle(100, 150,100, paint);
paint.setColor(Color.GREEN);
canvas.drawText("Rectangle", 255, 30, paint);
paint.setColor(Color.YELLOW);
canvas.drawRect(250, 50,400,350, paint);
paint.setColor(Color.GREEN);
canvas.drawText("SQUARE", 55, 430, paint);
paint.setColor(Color.BLUE);
canvas.drawRect(50, 450,150,550, paint);
paint.setColor(Color.GREEN);
canvas.drawText("LINE", 255, 430, paint);
paint.setColor(Color.CYAN);
canvas.drawLine(250, 500, 350, 500, paint);
}
}
}
```

OUTPUT:



5) **Develop an application that makes use of database.**

Description:

1)Open eclipse or android studio and select new android project
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next
4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file.

Source code :

<AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:id="@+id/myLayout"
android:stretchColumns="0"
android:layout_width="fill_parent"
android:layout_height="fill_parent">
<TextView android:text="@string/title"

```
android:layout_x="110dp"
android:layout_y="10dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
<TextView android:text="@string/empid"
android:layout_x="30dp"
android:layout_y="50dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
<EditText android:id="@+id/editEmpid"
android:inputType="number"
android:layout_x="150dp"
android:layout_y="50dp"
android:layout_width="150dp"
android:layout_height="40dp"/>
<TextView android:text="@string/name"
android:layout_x="30dp"
android:layout_y="100dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
<EditText android:id="@+id/editName"
android:inputType="text"
android:layout_x="150dp"
android:layout_y="100dp"
android:layout_width="150dp"
android:layout_height="40dp"/>
<TextView android:text="@string/salary"
android:layout_x="30dp"
android:layout_y="150dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
<EditText android:id="@+id/editsalary"
android:inputType="number"
android:layout_x="150dp"
android:layout_y="150dp"
android:layout_width="150dp"
android:layout_height="40dp"/>
<Button android:id="@+id/btnAdd"
android:text="@string/add"
android:layout_x="30dp"
```

```
android:layout_y="200dp"
android:layout_width="130dp"
android:layout_height="40dp"/>
<Button android:id="@+id/btnDelete"
android:text="@string/delete"
android:layout_x="160dp"
android:layout_y="200dp"
android:layout_width="130dp"
android:layout_height="40dp"/>n
<Button android:id="@+id/btnModify"
android:text="@string/modify"
android:layout_x="30dp"
android:layout_y="250dp"
android:layout_width="130dp"
android:layout_height="40dp"/>
<Button android:id="@+id/btnView"
android:text="@string/view"
android:layout_x="160dp"
android:layout_y="250dp"
android:layout_width="130dp"
android:layout_height="40dp"/>
<Button android:id="@+id/btnViewAll"
android:text="@string/view_all"
android:layout_x="85dp"
android:layout_y="300dp"
android:layout_width="150dp"
android:layout_height="40dp"/>
</AbsoluteLayout>
```

Go to values folder and select string.xml file.Replace the code below

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
<string name="app_name">Employee detail1</string>
<string name="hello">Hello World, Employee detail Activity!</string>
<string name="title">Employee Details</string>
<string name="empid">Enter Employee ID: </string>
<string name="name">Enter Name: </string>
<string name="salary">Enter salary: </string>
<string name="add">Add Employee</string>
```

<string name="delete">Delete Employee</string>
<string name="modify">Modify Employee</string>
<string name="view">View Employee</string>
<string name="view_all">View All Employee</string>
</resources>
8) Now select mainactivity.java file and type the following code.In my coding maniactivity name
is EmployeedetailActivity.

```
package employee.detail;
//import android.R;
import android.app.Activity;
import android.app.AlertDialog.Builder;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
public class EmployeedetailActivity extends Activity implements OnClickListener {
EditText editEmpid,editName,editsalary;
Button btnAdd,btnDelete,btnModify,btnView,btnViewAll;
SQLiteDatabase db;
/** Called when the activity is first created. */
@Override
public void onCreate(Bundle savedInstanceState)
{
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
editEmpid=(EditText)findViewById(R.id.editEmpid);
editName=(EditText)findViewById(R.id.editName);
editsalary=(EditText)findViewById(R.id.editsalary);
btnAdd=(Button)findViewById(R.id.btnAdd);
btnDelete=(Button)findViewById(R.id.btnDelete);
btnModify=(Button)findViewById(R.id.btnModify);
btnView=(Button)findViewById(R.id.btnView);
btnViewAll=(Button)findViewById(R.id.btnViewAll);
btnAdd.setOnClickListener(this);
btnDelete.setOnClickListener(this);
```

```
btnModify.setOnClickListener(this);
btnView.setOnClickListener(this);
btnViewAll.setOnClickListener(this);
db=openOrCreateDatabase("EmployeeDB", Context.MODE_PRIVATE, null);
db.execSQL("CREATE TABLE IF NOT EXISTS employee(empid VARCHAR,name
VARCHAR,salary VARCHAR);");
}
public void onClick(View view)
{
if(view==btnAdd)
{
if(editEmpid.getText().toString().trim().length()==0||
editName.getText().toString().trim().length()==0||
editsalary.getText().toString().trim().length()==0)
{
showMessage("Error", "Please enter all values");
return;
}
db.execSQL("INSERT INTO employee
VALUES('"+editEmpid.getText()+"','"+editName.getText()+
"','"+editsalary.getText()+"');");
showMessage("Success", "Record added");
clearText();
}
if(view==btnDelete)
{
if(editEmpid.getText().toString().trim().length()==0)
{
showMessage("Error", "Please enter Employee id");
return;
}
Cursor c=db.rawQuery("SELECT * FROM employee WHERE
empid='"+editEmpid.getText()+"'", null);
if(c.moveToFirst())
{
db.execSQL("DELETE FROM employee WHERE
empid='"+editEmpid.getText()+"'");
showMessage("Success", "Record Deleted");
}
else
```

```
{
showMessage("Error", "Invalid Employee id");
}
clearText();
}
if(view==btnModify)
{
if(editEmpid.getText().toString().trim().length()==0)
{
showMessage("Error", "Please enter Employee id");
return;
}
Cursor c=db.rawQuery("SELECT * FROM employee WHERE
empid='"+editEmpid.getText()+"'", null);
if(c.moveToFirst())
{
db.execSQL("UPDATE employee SET
name='"+editName.getText()+"',salary='"+editsalary.getText()+
"' WHERE empid='"+editEmpid.getText()+"'");
showMessage("Success", "Record Modified");
}
else
{
showMessage("Error", "Invalid Rollno");
}
clearText();
}
if(view==btnView)
{
if(editEmpid.getText().toString().trim().length()==0)
{
showMessage("Error", "Please enter Employee id");
return;
}
Cursor c=db.rawQuery("SELECT * FROM employee WHERE
empid='"+editEmpid.getText()+"'", null);
if(c.moveToFirst())
{
editName.setText(c.getString(1));
editsalary.setText(c.getString(2));
```

```
}
else
{
showMessage("Error", "Invalid Employee id");
clearText();
}
}
if(view==btnViewAll)
{
Cursor c=db.rawQuery("SELECT * FROM employee", null);
if(c.getCount()==0)
{
showMessage("Error", "No records found");
return;
}
StringBuffer buffer=new StringBuffer();
while(c.moveToNext())
{
buffer.append("Employee id: "+c.getString(0)+"\n");
buffer.append("Name: "+c.getString(1)+"\n");
buffer.append("salary: "+c.getString(2)+"\n\n");
}
showMessage("Employee details Details", buffer.toString());
}
}
public void showMessage(String title,String message)
{
Builder builder=new Builder(this);
builder.setCancelable(true);
builder.setTitle(title);
builder.setMessage(message);
builder.show();
}
public void clearText()
{
editEmpid.setText("");
editName.setText("");
editsalary.setText("");
editEmpid.requestFocus();
}
```

}

OUTPUT:

6) Develop an application that makes use of RSS Feed.

Source code &Steps:

RSS (Rich Site Summary; originally RDF Site Summary; often called Really Simple Syndication) uses a family of standard web **feed** formats to publish frequently updated information: blog entries, news headlines, audio, video.

Open Android Studio and then click on **File -> New -> New project.**
Then type the Application name as "**ex.no.6**" and click **Next.**

Then select the **Minimum SDK** and click **Next**.
Then select the **Empty Activity** and click **Next.**
Finally click F**inish**.
Designing layout for the Android Application:

Click on **app -> res -> layout -> activity_main.xml**
Then delete the code which is there and type the code as given below.
Code for Activity_main.xml:

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

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

   android:layout_width="fill_parent"

   android:layout_height="fill_parent"

   android:orientation="vertical" >

   <ListView

      android:id="@+id/listView"

      android:layout_width="match_parent"

      android:layout_height="wrap_content" />

</LinearLayout>
```

- So now the designing part is completed.

Adding permissions in Manifest for the Android Application:

- Click on **app -> manifests -> AndroidManifest.xml**
  - Now include the **INTERNET** permissions in the AndroidManifest.xml file as shown below

Code for AndroidManifest.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    package="com.example.exno6" >
▪
    <uses-permission
android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:supportsRtl="true"
        android:theme="@style/AppTheme" >
        <activity android:name=".MainActivity" >
            <intent-filter>
                <action
android:name="android.intent.action.MAIN" />

                <category
android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- So now the Permissions are added in the Manifest.

Java Coding for the Android Application:

- Click on **app -> java -> com.example.exno6 -> MainActivity.**
  - Then delete the code which is there and type the code as given below.

```
package com.example.exno6;

import android.app.ListActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.AsyncTask;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.ListView;
```

```
import org.xmlpull.v1.XmlPullParser;
import org.xmlpull.v1.XmlPullParserException;
import org.xmlpull.v1.XmlPullParserFactory;
import java.io.IOException;
import java.io.InputStream;
import java.net.MalformedURLException;
import java.net.URL;
import java.util.ArrayList;
import java.util.List;

public class MainActivity extends ListActivity
{
   List headlines;
   List links;

   @Override
   protected void onCreate(Bundle savedInstanceState)
   {
      super.onCreate(savedInstanceState);
      new MyAsyncTask().execute();
   }

   class MyAsyncTask extends AsyncTask<Object,Void,ArrayAdapter>
   {
      @Override
      protected ArrayAdapter doInBackground(Object[] params)
      {
         headlines = new ArrayList();
         links = new ArrayList();
         try
         {
            URL url = new URL("http://www.codingconnect.net/feed");
            XmlPullParserFactory factory = XmlPullParserFactory.newInstance();
            factory.setNamespaceAware(false);
            XmlPullParser xpp = factory.newPullParser();

            // We will get the XML from an input stream
            xpp.setInput(getInputStream(url), "UTF_8");
            boolean insideItem = false;
```

```
                // Returns the type of current event: START_TAG, END_TAG, etc..
                int eventType = xpp.getEventType();
                while (eventType != XmlPullParser.END_DOCUMENT)
                {
                   if (eventType == XmlPullParser.START_TAG)
                   {
                      if (xpp.getName().equalsIgnoreCase("item"))
                      {
                         insideItem = true;
                      }
                      else if (xpp.getName().equalsIgnoreCase("title"))
                      {
                         if (insideItem)
                            headlines.add(xpp.nextText()); //extract the headline
                      }
                      else if (xpp.getName().equalsIgnoreCase("link"))
                      {
                         if (insideItem)
                            links.add(xpp.nextText()); //extract the link of article
                      }
                   }
                   else if(eventType==XmlPullParser.END_TAG &&
    xpp.getName().equalsIgnoreCase("item"))
                   {
                      insideItem=false;
                   }
                   eventType = xpp.next(); //move to next element
                }

             }
             catch (MalformedURLException e)
             {
                e.printStackTrace();
             }
             catch (XmlPullParserException e)
             {
                e.printStackTrace();
             }
             catch (IOException e)
             {
```

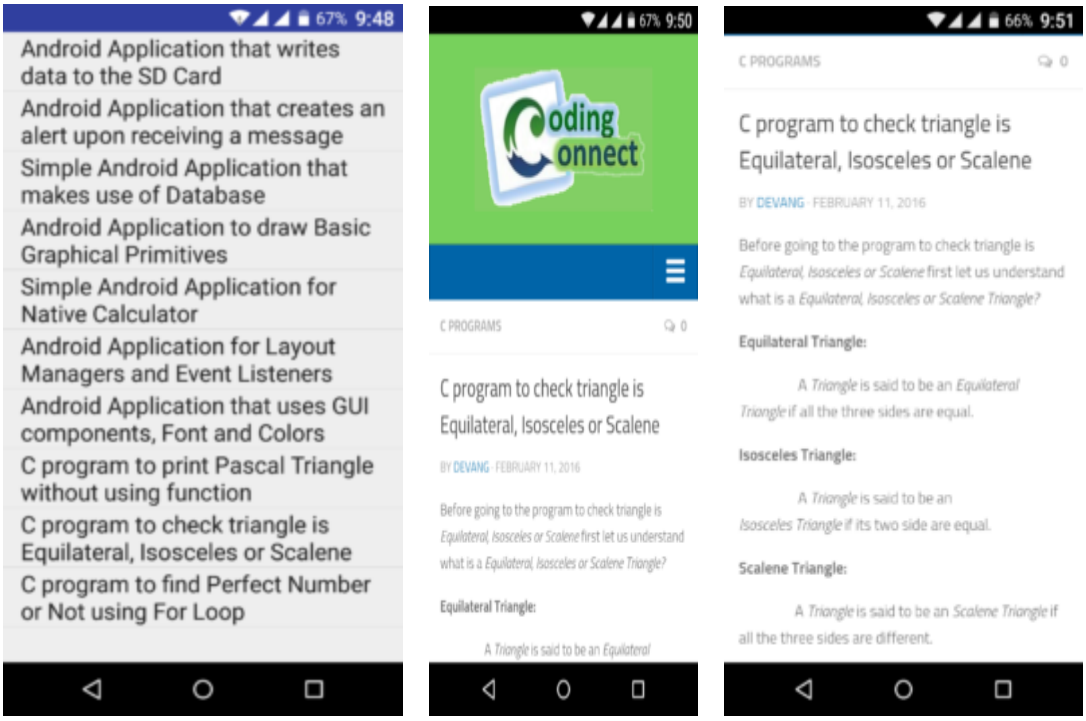
```
                e.printStackTrace();
            }
            return null;
        }
        protected void onPostExecute(ArrayAdapter adapter)
        {
            adapter = new ArrayAdapter(MainActivity.this,
  android.R.layout.simple_list_item_1, headlines);
            setListAdapter(adapter);
        }
    }

    @Override
    protected void onListItemClick(ListView l, View v, int position, long id)
    {
        Uri uri = Uri.parse((links.get(position)).toString());
        Intent intent = new Intent(Intent.ACTION_VIEW, uri);
        startActivity(intent);
    }

    public InputStream getInputStream(URL url)
    {
        try
        {
            return url.openConnection().getInputStream();
        }
        catch (IOException e)
        {
            return null;
        }
    }
}
```

- Now run the application to see the output.

Output:



Thus Android Application that makes use of RSS Feed is developed and executed successfully.

7) Implement an application that implements Multithreading.

Description:

1)Open eclipse or android studio and select new android project
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next

4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file.

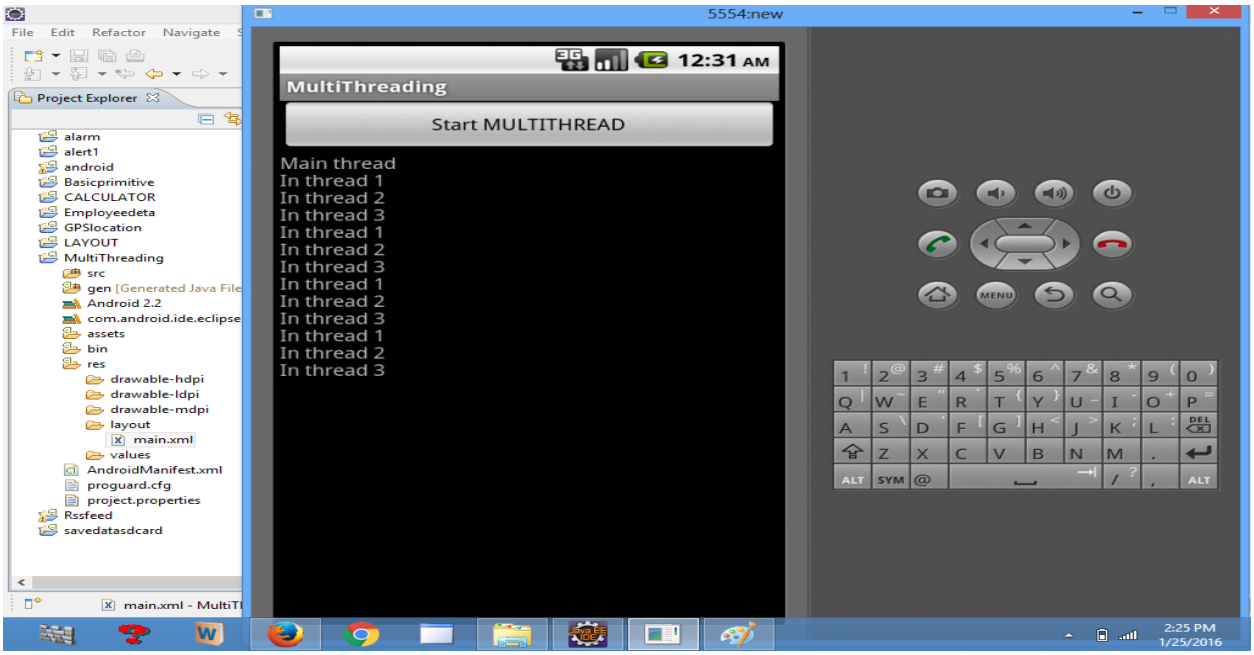
Source code:

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
android:id="@+id/info" >
<Button
android:id="@+id/button1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:onClick="fetchData"
android:text="Start MULTITHREAD" />
<TextView
android:id="@+id/textView1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Main thread" />
</LinearLayout>


package multi.threading;
//import your.first.R;
import android.app.Activity;
import android.os.Bundle;
import android.os.Handler;
import android.view.View;
import android.widget.TextView;
public class MultiThreadingActivity extends Activity {
private TextView tvOutput;
private static final int t1 = 1;
private static final int t2 = 2;
private static final int t3 = 3;
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
```

```
tvOutput = (TextView) findViewById(R.id.textView1);
}
public void fetchData(View v) {
tvOutput.setText("Main thread");
thread1.start();
thread2.start();
thread3.start();
}
Thread thread1 = new Thread(new Runnable() {
@Override
public void run() {
for (int i = 0; i < 5; i++) {
try {
Thread.sleep(1000);
} catch (InterruptedException e) {
e.printStackTrace();
}
handler.sendEmptyMessage(t1);
}
}
});
Thread thread2 = new Thread(new Runnable() {
@Override
public void run() {
for (int i = 0; i < 5; i++) {
try {
Thread.sleep(1000);
} catch (InterruptedException e) {
e.printStackTrace();
}
handler.sendEmptyMessage(t2);
}
}
});
Thread thread3 = new Thread(new Runnable() {
@Override
public void run() {
for (int i = 0; i < 5; i++) {
try {
Thread.sleep(1000);
```

```
} catch (InterruptedException e) {
e.printStackTrace();
}
handler.sendEmptyMessage(t3);
}
}
});
Handler handler = new Handler() {
public void handleMessage(android.os.Message msg) {
if(msg.what == t1) {
tvOutput.append("\nIn thread 1");
}
if(msg.what == t2) {
tvOutput.append("\nIn thread 2");
}
if(msg.what == t3) {
tvOutput.append("\nIn thread 3");
}
} }; }
```



8) Develop an application tha uses GPS location information.

Description:

1)Open eclipse or android studio and select new android project
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next
4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file.Add the code

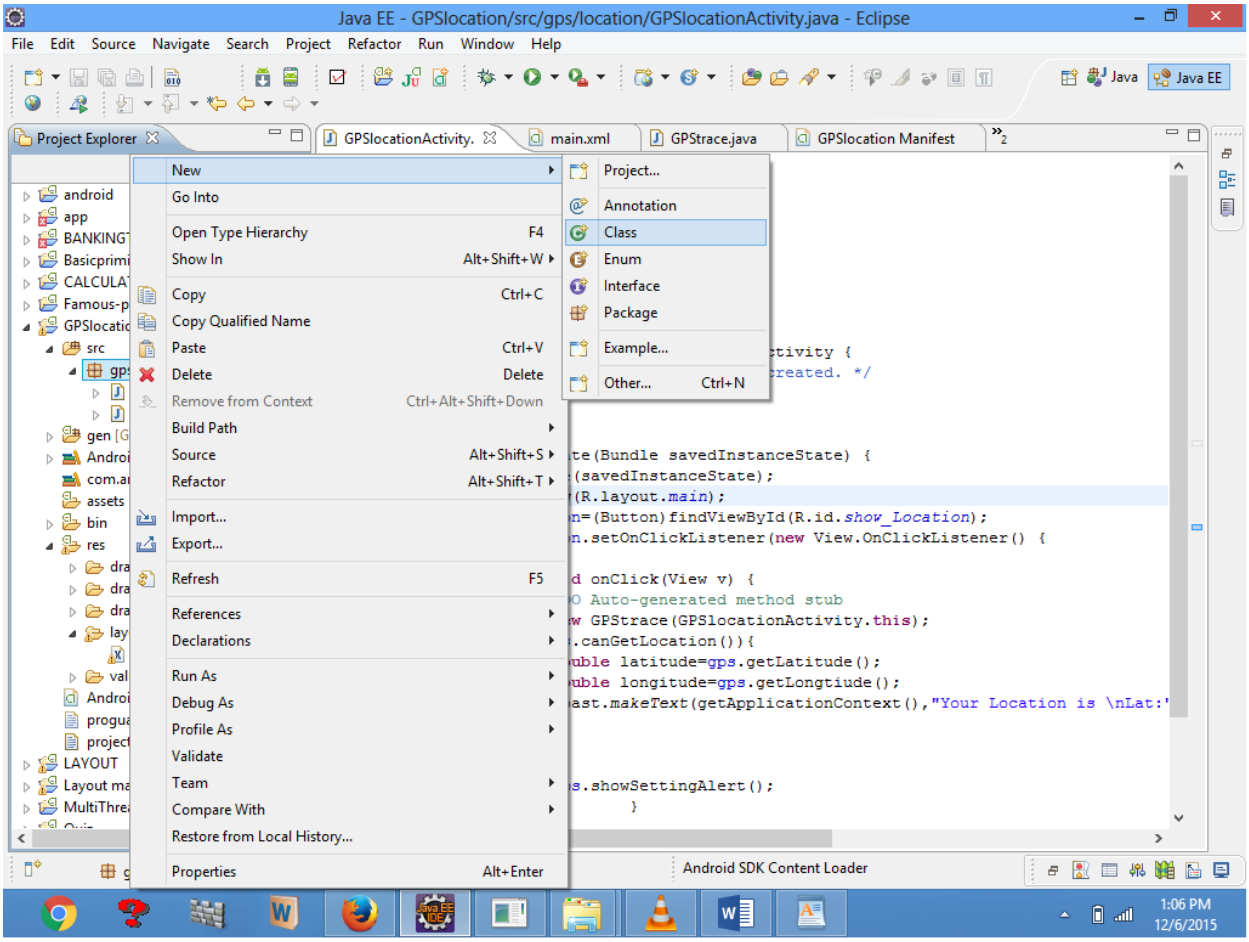
Source code:

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:id="@+id/relativeLayout1"
android:layout_width="match_parent"
android:layout_height="match_parent" >
<Button
android:id="@+id/show_Location"
android:layout_width="wrap_content"
android:layout_height="wrap_content
android:text="Show_Location"
android:layout_centerVertical="true"
android:layout_centerHorizontal="true"
/>
</RelativeLayout>
```

```
package gps.location;
//import android.R;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
public class GPSlocationActivity extends Activity {
/** Called when the activity is first created. */
Button btnShowLocation;
GPStrace gps;
@Override
public void onCreate(Bundle savedInstanceState) {
```

```
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
btnShowLocation=(Button)findViewById(R.id.show_Location);
btnShowLocation.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
// TODO Auto-generated method stub
gps=new GPStrace(GPSlocationActivity.this);
if(gps.canGetLocation()){
double latitude=gps.getLatitude();
double longitude=gps.getLongtiude();
Toast.makeText(getApplicationContext(),"Your Location is
\nLat:"+latitude+"\nLong:"+longitude, Toast.LENGTH_LONG).show();
}
else
{
gps.showSettingAlert();
}
} });  } }
```

)Go to src folder and Right Click on your package folder and choose new class and give the class nams as GPStrace



9)Select the GPStrace.java file and paste the following code.

```
package gps.location;
import android.app.AlertDialog;
import android.app.Service;
import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.os.IBinder;
import android.provider.Settings;
public class GPStrace extends Service implements LocationListener{
private final Context context;
boolean isGPSEnabled=false;
boolean canGetLocation=false;
boolean isNetworkEnabled=false;
```

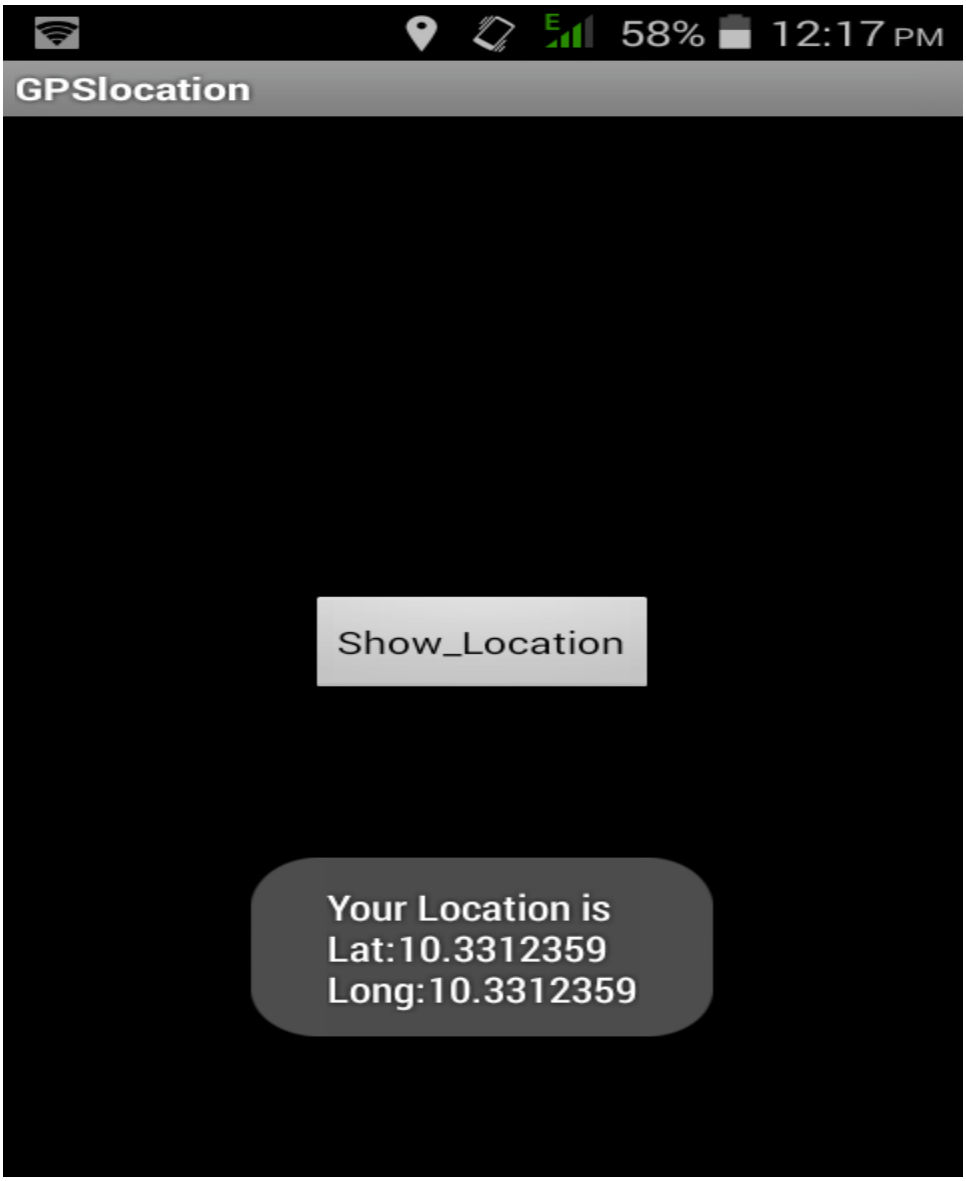
```
Location location;
double latitude;
double longtitude;
private static final long MIN_DISTANCE_CHANGE_FOR_UPDATES=10;
private static final long MIN_TIME_BW_UPDATES=1000*60*1;
protected LocationManager locationManager;
public GPStrace(Context context)
{
this.context=context;
getLocation();
}
public Location getLocation()
{
try{
locationManager=(LocationManager) context.getSystemService(LOCATION_SERVICE);
isGPSEnabled=locationManager.isProviderEnabled(LocationManager.GPS_PROVIDER);
isNetworkEnabled=locationManager.isProviderEnabled(LocationManager.NETWORK_PRO
VI
DER);
if(!isGPSEnabled && !isNetworkEnabled){
}else{
this.canGetLocation=true;
if(isNetworkEnabled){
locationManager.requestLocationUpdates(
LocationManager.NETWORK_PROVIDER,
MIN_TIME_BW_UPDATES,
MIN_DISTANCE_CHANGE_FOR_UPDATES,this);
}
if(locationManager!=null){
location=locationManager.getLastKnownLocation(LocationManager.NETWORK_PROVID
ER)
;
if(location !=null){
latitude=location.getLatitude();
longtitude=location.getLongitude();
}
}
}
if(isGPSEnabled){
if(location==null){
```

```
locationManager.requestLocationUpdates(LocationManager.GPS_PROVIDER,MIN_TIME_
B
W_UPDATES, MIN_DISTANCE_CHANGE_FOR_UPDATES, this);
if(locationManager!=null){
location=locationManager.getLastKnownLocation(LocationManager.GPS_PROVIDER);
if(location!=null){
latitude=location.getLatitude();
longtitude=location.getLongitude();
}
}
}
}
}
catch(Exception e)
{
e.printStackTrace();
}
return location;
}
public void stopUsingGPS(){
if(locationManager!=null){
locationManager.removeUpdates(GPStrace.this);
}
}
public double getLatitude(){
if(location!=null){
latitude=location.getLatitude();
}
return latitude;
}
public double getLongtiude(){
if(location!=null){
longtitude=location.getLatitude();
}
return longtitude;
}
public boolean canGetLocation(){
return this.canGetLocation;
}
public void showSettingAlert(){
```

```
AlertDialog.Builder alertDialog=new AlertDialog.Builder(context);
alertDialog.setTitle("GPS is settings");
alertDialog.setMessage("GPS is not enabled.Do you want to go to setting menu?");
alertDialog.setPositiveButton("settings", new DialogInterface.OnClickListener() {
@Override
public void onClick(DialogInterface dialog,int which){
Intent intent=new Intent(Settings.ACTION_LOCATION_SOURCE_SETTINGS);
context.startActivity(intent);
}
});
alertDialog.setNegativeButton("cancel", new DialogInterface.OnClickListener() {
@Override
public void onClick(DialogInterface dialog, int which) {
// TODO Auto-generated method stub
dialog.cancel();
}
});
alertDialog.show();
}
@Override
public void onLocationChanged(Location location) {
// TODO Auto-generated method stub
}
@Override
public void onProviderDisabled(String provider) {
// TODO Auto-generated method stub
}
@Override
public void onProviderEnabled(String provider) {
// TODO Auto-generated method stub
}
@Override
public void onStatusChanged(String provider, int status, Bundle extras) {
// TODO Auto-generated method stub
}
@Override
public IBinder onBind(Intent intent) {
// TODO Auto-generated method stub
return null;
}
```

}
10)Go to manifest.xml file and add the code below
<uses-permission
android:name="android.permission.ACCESS_FINE_LOCATION"/>
<uses-permission
android:name="android.permission.INTERNET"/>

- Now go to main.xml and right click .select run as option and select run configuration
- Android output is present in the android emulator as shown in below.



9) **Implement an application that creates an alert upon receiving a message in Android.**

Description:

1)Open eclipse or android studio and select new android project
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next
4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file.Add the code

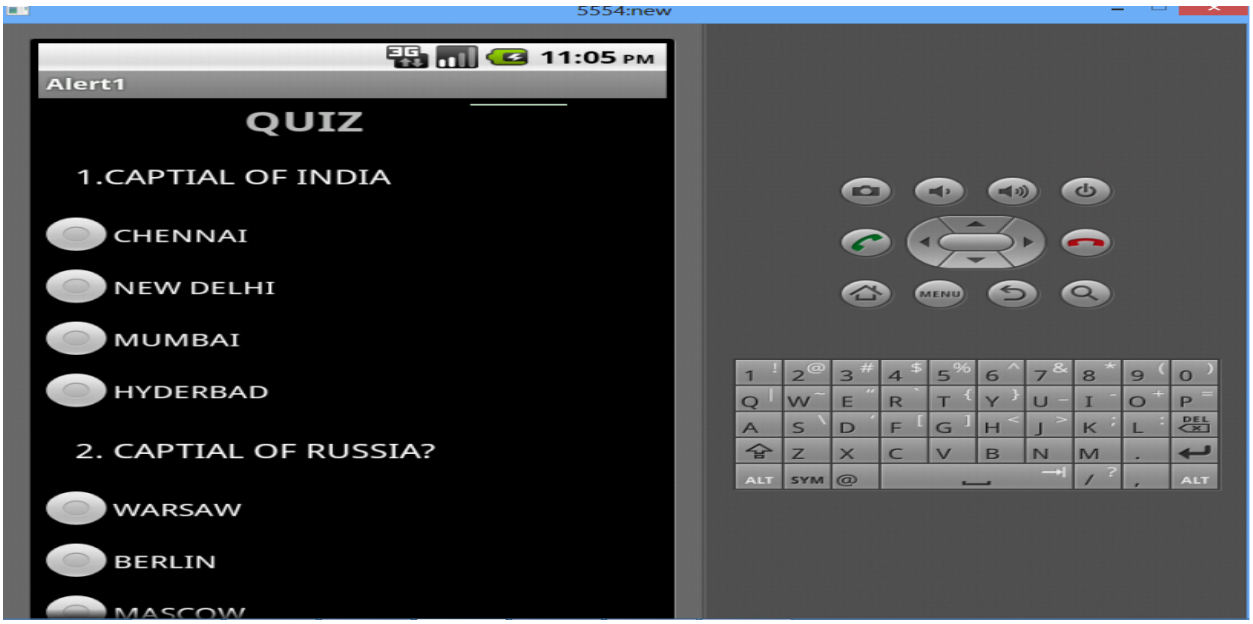
Source code:

```
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:scrollbars="vertical" >
<TableLayout
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:shrinkColumns="*" android:stretchColumns="*"
android:background="#000000">
<TableRow
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:gravity="center_horizontal">
<TextView
android:id="@+id/Title"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:layout_margin="5px"
android:focusable="false"
android:focusableInTouchMode="false"
android:gravity="center_vertical|center_horizontal"
android:text="QUIZ"
android:textSize="25sp"
android:textStyle="bold" />
```

```
<View
android:layout_height="2px"
android:layout_marginTop="5dip"
android:layout_marginBottom="5dip"
android:background="#DDFFDD"/>
</TableRow>
<TableRow
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:gravity="center_horizontal">
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="18sp"
android:text="1.CAPTIAL OF INDIA"
android:layout_span="4"
android:padding="18dip"
android:textColor="#ffffff"/>
</TableRow>
<TableRow
android:id="@+id/tableRow1"
android:layout_height="wrap_content"
android:layout_width="match_parent">
<RadioGroup
android:id="@+id/answer1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_weight="0.4" >
<RadioButton
android:id="@+id/answer1A"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="CHENNAI" />
<RadioButton
android:id="@+id/answer1B"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="NEW DELHI" />
```

```
<RadioButton
android:id="@+id/answer1C"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="MUMBAI" />
<RadioButton
android:id="@+id/answer1D"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="HYDERBAD" />
</RadioGroup>
</TableRow>
<TableRow
android:layout_height="wrap_content"
android:layout_width="match_parent"
android:gravity="center_horizontal">
<TextView
android:layout_width="match_parent" android:layout_height="wrap_content"
android:textSize="18sp"
android:text="2. CAPTIAL OF RUSSIA?" android:layout_span="4"
android:padding="18dip"
android:textColor="#ffffff"/>
</TableRow>
<TableRow
android:id="@+id/tableRow2"
android:layout_height="wrap_content"
android:layout_width="match_parent">
<RadioGroup
android:id="@+id/answer2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_weight="0.4" >
<RadioButton
android:id="@+id/answer2A"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="WARSAW " />
```

```
<RadioButton
android:id="@+id/answer2B"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="BERLIN" />
<RadioButton
android:id="@+id/answer2C"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="MASCOW " />
<RadioButton
android:id="@+id/answer2D"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textColor="#ffffff"
android:text="CANEBRA " />
</RadioGroup>
</TableRow>
<TableRow
<Button
android:id="@+id/submit"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:gravity="center"
android:text="Submit" />
</TableRow>
</TableLayout>
</ScrollView>
```



10) **Write a mobile application that creates alarm clock**

Source code :

AndroidManifest.xml

We need to give uses-permission for WAKE_LOCK, other than that the AndroidManifest.xml is
pretty standard one. Just need to include the service and receiver.

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
package="com.javapapers.androidalarmclock">
<uses-permission android:name="android.permission.WAKE_LOCK" />
<application
android:allowBackup="true"
android:icon="@drawable/ic_launcher"
android:label="@string/app_name"
android:theme="@style/AppTheme">
<activity
android:name=".AlarmActivity"
android:label="@string/app_name">
<intent-filter>
```

```
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
<service
android:name=".AlarmService"
android:enabled="true" />
<receiver android:name=".AlarmReceiver" />
</application>
</manifest>
```

2. Android Activity

activity_my.xml

The Android Activity is designed to be simple. We have a TimePicker component followed by a ToggleButton. That's it. Choose the time to set the alarm and toggle the switch to on. The alarm will work.

```
<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"
android:paddingLeft="@dimen/activity_horizontal_margin"
android:paddingRight="@dimen/activity_horizontal_margin"
android:paddingTop="@dimen/activity_vertical_margin"
android:paddingBottom="@dimen/activity_vertical_margin"
tools:context=".MyActivity">
<TimePicker
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/alarmTimePicker"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true" />
<ToggleButton
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Alarm On/Off"
android:id="@+id/alarmToggle"
android:layout_centerHorizontal="true"
android:layout_below="@+id/alarmTimePicker"
android:onClick="onToggleClicked" />
```

```
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textAppearance="?android:attr/textAppearanceLarge"
android:text=""
android:id="@+id/alarmText"
android:layout_alignParentBottom="true"
android:layout_centerHorizontal="true"
android:layout_marginTop="20dp"
android:layout_below="@+id/alarmToggle" />
</RelativeLayout>
```

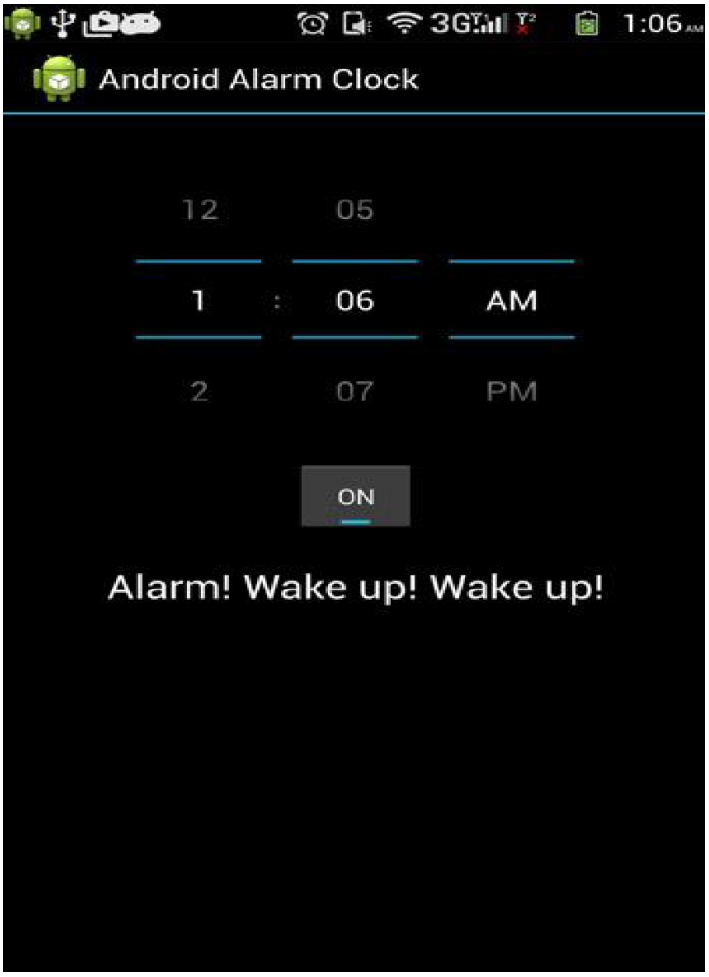
AlarmActivity.java

AlarmActivity uses the AlarmManager to set the alarm and send notification on alarm trigger.

```
package com.javapapers.androidalarmclock;
import android.app.Activity;
import android.app.AlarmManager;
import android.app.PendingIntent;
import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.TextView;
import android.widget.TimePicker;
import android.widget.ToggleButton;
import java.util.Calendar;
public class AlarmActivity extends Activity {
AlarmManager alarmManager;
private PendingIntent pendingIntent;
private TimePicker alarmTimePicker;
private static AlarmActivity inst;
private TextView alarmTextView;
public static AlarmActivity instance() {
return inst;
}
@Override
public void onStart() {
super.onStart();
inst = this;
}
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_my);
alarmTimePicker = (TimePicker) findViewById(R.id.alarmTimePicker);
alarmTextView = (TextView) findViewById(R.id.alarmText);
ToggleButton alarmToggle = (ToggleButton)
findViewById(R.id.alarmToggle);
alarmManager = (AlarmManager) getSystemService(ALARM_SERVICE);
}
public void onToggleClicked(View view) {
if (((ToggleButton) view).isChecked()) {
Log.d("MyActivity", "Alarm On");
Calendar calendar = Calendar.getInstance();
calendar.set(Calendar.HOUR_OF_DAY,
alarmTimePicker.getCurrentHour());
calendar.set(Calendar.MINUTE,
alarmTimePicker.getCurrentMinute());
Intent myIntent = new Intent(AlarmActivity.this,
AlarmReceiver.class);
pendingIntent = PendingIntent.getBroadcast(AlarmActivity.this, 0,
myIntent, 0);
alarmManager.set(AlarmManager.RTC, calendar.getTimeInMillis(),
pendingIntent);
} else {
alarmManager.cancel(pendingIntent);
setAlarmText("");
Log.d("MyActivity", "Alarm Off");
}
}
public void setAlarmText(String alarmText) {
alarmTextView.setText(alarmText);
}
}
```

OUTPUT:



11) **Implement an application that writes data to the SD card.**

Decription:

1)Open eclipse or android studio and select new android project
2)Give project name and select next
3) Choose the android version.Choose the lowest android version(Android 2.2) and select next
4) Enter the package name.package name must be two word seprated by comma and click finish
5)Go to package explorer in the left hand side.select our project.
6)Go to res folder and select layout.Double click the main.xml file.Add the code .

Source code:

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:background="#ff0000ff"
```

```
android:orientation="vertical" >
<EditText
android:id="@+id/editText1"
android:layout_width="match_parent"
android:layout_height="wrap_content" >
<requestFocus />
</EditText>
<Button
android:id="@+id/button1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="SAVE DATA" />
<Button
android:id="@+id/button2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="SHOW DATA" />
<TextView
android:id="@+id/textView1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
/>
</LinearLayout>
```

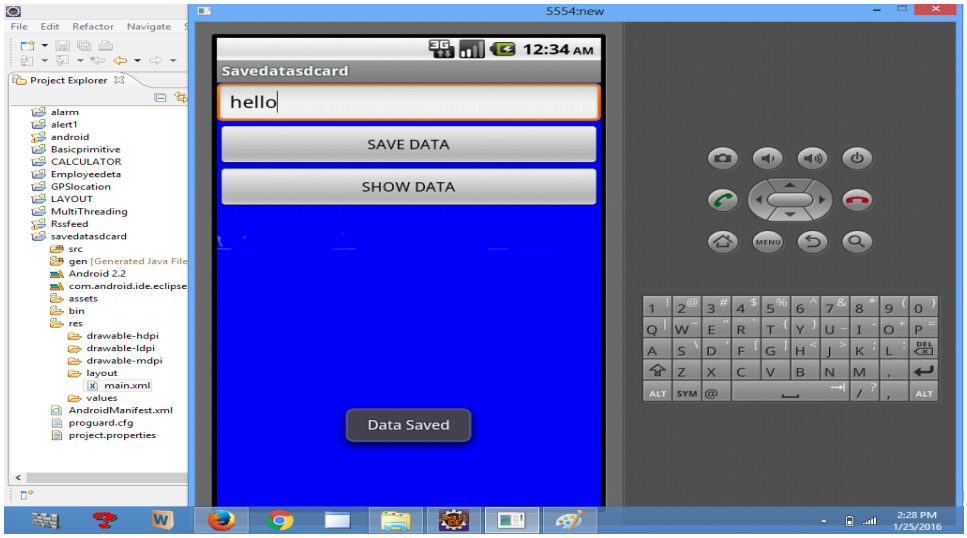
7) Now select mainactivity.java file and type the following code.

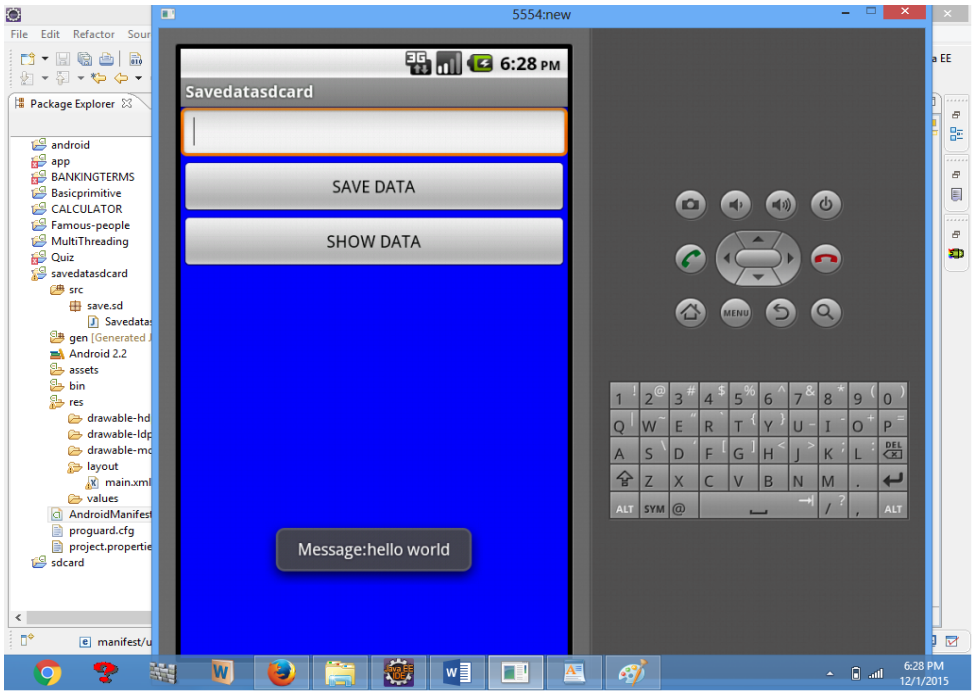
```
package save.sd;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.OutputStreamWriter;
import android.app.Activity;
import android.os.Bundle;
import android.os.Environment;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
```

```
public class SavedatasdcardActivity extends Activity {
/** Called when the activity is first created. */
Button save,load;
EditText message;
TextView t1;
String Message1;
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
save=(Button) findViewById(R.id.button1);
load=(Button) findViewById(R.id.button2);
message=(EditText) findViewById(R.id.editText1);
t1=(TextView) findViewById(R.id.textView1);
save.setOnClickListener(new View.OnClickListener(){
public void onClick(View v){
//Get message from user store in message1 variable
Message1 =message.getText().toString();
try{
//Create a new folder called MyDirectory in SDCard
File sdcard=Environment.getExternalStorageDirectory();
File directory=new File(sdcard.getAbsolutePath()+"/MyDirectory");
directory.mkdirs();
//Create a new file name textfile.txt inside MyDirectory
File file=new File(directory,"textfile.txt");
//Create File Outputstream to read the file
FileOutputStream fou=new FileOutputStream(file);
OutputStreamWriter osw=new OutputStreamWriter(fou);
try{
//write a user data to file
osw.append(Message1);
osw.flush();
osw.close();
Toast.makeText(getBaseContext(),"Data
Saved",Toast.LENGTH_LONG).show();
}catch(IOException e){
e.printStackTrace();
}
}catch (FileNotFoundException e){
e.printStackTrace();
```

```
}
}
});
load.setOnClickListener(new View.OnClickListener(){
public void onClick(View v){
try{
File sdcard=Environment.getExternalStorageDirectory();
File directory=new File(sdcard.getAbsolutePath()+"/MyDirectory");
File file=new File(directory,"textfile.txt");
FileInputStream fis=new FileInputStream(file);
InputStreamReader isr=new InputStreamReader(fis);
char[] data=new char[100];
String final_data="";
int size;
try{
while((size=isr.read(data))>0)
{
//read a data from file
String read_data=String.copyValueOf(data,0,size);
final_data+=read_data;
data=new char[100];
}
//display the data in output
Toast.makeText(getBaseContext(),"Message:"+final_data,Toast.LENGTH_LONG).show();
}catch(IOException e){
e.printStackTrace();
}
}catch (FileNotFoundException e){
e.printStackTrace();
}
}
});    }  }
```

OUTPUT:


5554:new
12:34 AM
Savedatasdcard
hello
SAVE DATA
SHOW DATA
Data Saved
Project Explorer
2:28 PM
1/25/2016


5554:new
6:28 PM
Savedatasdcard
SAVE DATA
SHOW DATA
Message:hello world
Package Explorer
6:28 PM
12/1/2015