MAD PRACTICAL ANSWERS

1.Write a program to place Name, Age, Mobile number linearly(vertical) on the display screen using Linear layout.
Ans: <?xml version="1.0" encoding="utf-8" ?>
<Linear Layout
xmlns: android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation= "vertical">
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_content"
android:text= "Student Name:"
android:textsize= "20dp"/>
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_content"
android:text= "Age:"
android:textsize= "20dp"/>
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_content"
android:text= "Mobile No:"
android:textsize= "20dp"/>
</Linear Layout>

2. Write a program to place Name, Age, Mobile number linearly(vertical) on the display screen using Absolute layout.
Ans: <?xml version="1.0" encoding="utf-8" ?>
<Absolute Layout
xmlns: android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
android:layout_height="match_parent"
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_content"
android:text= "Student Name:"
android:textsize= "20dp"
android:layout_x= "50px"
android:layout_y= "350px"/>
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_content"

android:text= "Age:"
android:textsize= "20dp"
android:layout_x= "50px"
android:layout_y= "550px"/>
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_content"
android:text= "Mobile No:"
android:textsize= "20dp"
android:layout_x= "50px"
android:layout_y= "750px"/>
</Absolute Layout>

3. Write a program to display 5 students basic information in a table form using Table layout.
Ans: <? xml version="1.0" encoding="utf-8"?>
<Table Layout
xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width= "match_parent"
android:layout_height= "match_parent">
<Table Row>
<TextView >
android:layout_width= "120dp"
android:layout_height="40dp"
android:text="Student Name"
android:layout_column = "1" />
<TextView >
android:layout_width= "80dp"
android:layout_height="40dp"
android:text="Age"
android:layout_column = "2" />
<TextView >
android:layout_width= "80dp"
android:layout_height="40dp"
android:text="Mobile No"
android:layout_column = "3" />
</Table Row>
<Table Row>
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_conten"
android:text="Virat"
android:layout_column = "1" />
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_conten"

android:text="20"
android:layout_column = "2" />
<TextView
android:layout_width= "wrap_content"
android:layout_height= "wrap_conten"
android:text="999999999"
android:layout_column = "3" />
</Table Row>
</Table Layout>

4. Write a program to accept username and password from the end user using Text View and edit Text.
Ans:
<?xml version="1.0" encoding="utf-8" ?>
<Relative Layout
xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
android:layout_height="match_parent">
<TextView
android:id="@+id /t1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentLeft="true"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:text="NAME"
android:textsize="20sp"
android:layout_margin="20dp"/>
<TextView
android:id="@+id /t2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textsize="20sp"
android:text="PASSWORD"
android:layout_marginTop="28dp"
android:layout_below="@+id /t1"
android:layout_alignLeft="@+id /t1"
android:layout_alignStart="@+id /t1"/>
<EditText
android:id="@+id/ Let 1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:inputType="text"
android:hint="Enter Name"
android:layout_alignParentTop="true"
android:layout_alignParentRight="true"

android:layout_alignParentEnd="true"
android:layout_alignLeft="@+id Let2"
android:layout_alignStart="@+id Let2"/>
<EditText
android:id="@+id/ Let 2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:hint="Enter Password"
android:inputType="textPassword"
android:layout_alignBottom="@+id/t2"
android:layout_alignParentRight="true"
android:layout_alignParentEnd="true"
android:layout_marginParentRight="18dp"
android:layout_marginParentEnd="18dp"/>
<Button
android:id="@+id/b1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentLeft="true"
android:layout_alignParentStart="true"
android:layout_below="@+id/t2"
android:layout_marginTop="20dp"
android:text="SUBMIT"/>
<Button
android:id="@+id/b2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="RESET"/>
android:layout_alignBaseline="@+id/b1"
android:layout_alignBottom="@+id/b1"
android:layout_centerHorizontal="true"/>
<TextView
android:id="@+id /t3"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentBottom="true"
android:layout_alignParentLeft="true"
android:layout_alignParentStart="true"
android:layout_marginBottom="143dp"
android:textsize="30sp"/>
</Relative Layout>

5. Write a program to create a toggle button to display ON/OFF Bluetooth on the display screen.
Ans:
<?xml version="1.0" encoding="utf-8" ?>

```xml
<LinearLayout 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:orientation="vertical"
 tools:context=".MainActivity">
<LinearLayout
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center_horizontal"
 android:orientation="horizontal">
 <ToggleButton
 android:id="@+id/simpleToggleButton1"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center_horizontal"
 android:checked="false"
 android:drawablePadding="20dp"
 android:drawableRight="@mipmap/ic_launcher"
 android:textColor="#000" />
 <ToggleButton
 android:id="@+id/simpleToggleButton2"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center_horizontal"
 android:layout_marginLeft="50dp"
 android:checked="true"
 android:drawableLeft="@mipmap/ic_launcher"
 android:drawablePadding="20dp"
 android:textColor="#000"/>
</LinearLayout>
 <Button
 android:id="@+id/submitButton"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center"
 android:layout_marginTop="50dp"
 android:background="#0f0"
 android:padding="10dp"
 android:text="Submit"
 android:textColor="#fff"
 android:textSize="20sp"
 android:textStyle="bold"/>
</LinearLayout>
```

java code
```java
package com.example.myapplication;
```

```java
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import android.widget.ToggleButton;
public class MainActivity extends AppCompatActivity {
 ToggleButton simpleToggleButton1, simpleToggleButton2;
 Button submit;
 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
 simpleToggleButton1 = (ToggleButton) findViewById(R.id.simpleToggleButton1);
 simpleToggleButton2 = (ToggleButton) findViewById(R.id.simpleToggleButton2);
 submit = (Button) findViewById(R.id.submitButton);
 submit.setOnClickListener(new View.OnClickListener() {
 @Override
 public void onClick(View view) {
 String status = "ToggleButton1 : " + simpleToggleButton1.getText() + "\n" +
"ToggleButton2 :" + simpleToggleButton2.getText();
 Toast.makeText(getApplicationContext(), status, Toast.LENGTH_SHORT).show();
 }
 });
 }
 }
```

6. Write a program to create a login form for a social networking site.
Ans: <?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:orientation="vertical">
 <TextView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:text="ONLINE FORMS"
 android:textSize="25sp"
 android:layout_centerHorizontal="true"
 android:textStyle="bold|italic"
 android:layout_marginTop="50dp"
 android:textColor="#000"
 android:id="@+id/tvSite"/>
 <TextView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"

```xml
        android:text="USERNAME"
        android:id="@+id/tvUsername"
        android:textSize="20sp"
        android:layout_below="@+id/tvSite"
        android:layout_marginTop="50dp"
        android:layout_marginStart="15dp"
        android:layout_marginLeft="15dp"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/etUsername"
        android:layout_toEndOf="@+id/tvUsername"
        android:layout_toRightOf="@id/tvUsername"
        android:layout_below="@+id/tvSite"
        android:layout_marginTop="50dp"
        android:textColor="#000"/>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="PASSWORD"
        android:id="@+id/tvPassword"
        android:textSize="20sp"
        android:layout_below="@+id/tvUsername"
        android:layout_marginTop="68dp"
        android:layout_marginStart="15dp"
    android:layout_marginLeft="15dp"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/etPassword"
        android:layout_toEndOf="@+id/tvPassword"
        android:layout_toRightOf="@id/tvPassword"
        android:layout_below="@+id/etUsername"
        android:layout_marginTop="50dp"
        android:textColor="#000"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Login"
        android:layout_below="@+id/etPassword"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="50dp"
        android:textSize="16sp"
        android:id="@+id/btnLogin"/>
</RelativeLayout>
```

JAVA CODE

```java
package com.example.myapplication;
```

```
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
 EditText etUsername, etPassword;
 Button btnLogin;
 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
 etUsername = findViewById(R.id.etUsername);
 etPassword = findViewById(R.id.etPassword);
 btnLogin = findViewById(R.id.btnLogin);
 btnLogin.setOnClickListener(new View.OnClickListener() {
 @Override
public void onClick(View v) {
 String Username = etUsername.getText().toString();
 String Password = etPassword.getText().toString();
 Toast.makeText(MainActivity.this, Username + "|n" + Password ,
Toast.LENGTH_SHORT).show();
 }
 });
 }
}
```

7. Write a program to show five checkboxes and toast selected checkbox.
Ans: <?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" >
 <CheckBox
 android:id="@+id/chkIos"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:text="ios" />
 <CheckBox
 android:id="@+id/chkAndroid"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:text="android"
 android:checked="true" />
 <CheckBox

```xml
android:id="@+id/chkWindows"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="windows xp" />
<CheckBox
android:id="@+id/chkWindows7"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="windows 7" />
<CheckBox
android:id="@+id/chkWindows10"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="windows 10" />

<Button
android:id="@+id/btnDisplay"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Submit" />
</LinearLayout>
```

Java Code:

```java
package com.example.myapplication1;
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 chkIos, chkAndroid, chkWindows,chkWindows7,chkWindows10;
 private Button btnDisplay;
 @Override
 public void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
 chkIos = (CheckBox) findViewById(R.id.chkIos);
 chkAndroid = (CheckBox) findViewById(R.id.chkAndroid);
 chkWindows = (CheckBox) findViewById(R.id.chkWindows);
 btnDisplay = (Button) findViewById(R.id.btnDisplay);
 chkWindows7 = (CheckBox) findViewById(R.id.chkWindows7);
 chkWindows10 = (CheckBox) findViewById(R.id.chkWindows10);
 btnDisplay.setOnClickListener(new OnClickListener() {
 //Run when button is clicked
 @Override
```

```
public void onClick(View v) {
StringBuffer result = new StringBuffer();
result.append("IPhone check : ").append(chkIos.isChecked());
result.append("\nAndroid check : ").append(chkAndroid.isChecked());
result.append("\nWindows XP check : ").append(chkWindows.isChecked());
result.append("\nWindows 7 check : ").append(chkWindows7.isChecked());
result.append("\nWindows 10 check : ").append(chkWindows10.isChecked());
Toast.makeText(MainActivity.this, result.toString(),
Toast.LENGTH_LONG).show();
}
});
}
}
```

8. Write a program to display circular progress bar.
Ans: <?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
 android:layout_width="match_parent"
 android:layout_height="match_parent">
 <ProgressBar android:id="@+id/progressBar"
 style="?android:attr/progressBarStyleHorizontal"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignParentLeft="true"
 android:layout_alignParentTop="true"
 android:layout_marginLeft="50dp"
 android:layout_marginTop="50dp"
 android:max="100"
 android:minHeight="50dp"
 android:minWidth="200dp"
 android:progress="1" />
 <ProgressBar
 android:id="@+id/progressBar_cyclic"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:minHeight="50dp"
 android:minWidth="50dp"
 android:layout_centerVertical="true"
 android:layout_centerHorizontal="true" />
 <TextView
 android:id="@+id/textView"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignLeft="@+id/progressBar"
 android:layout_below="@+id/progressBar"/>
</RelativeLayout>

```
package com.example.myapplication1;
import android.app.Activity;
import android.os.Bundle;
import android.os.Handler;
import android.widget.ProgressBar;
import android.widget.TextView;
public class MainActivity extends Activity { private ProgressBar progressBar;
 private int progressStatus = 0;
 private TextView textView;
 private Handler handler = new Handler();
 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
 progressBar = (ProgressBar) findViewById(R.id.progressBar);
 textView = (TextView) findViewById(R.id.textView);
 // Start long running operation in a background thread
 new Thread(new Runnable()
{
public void run() {
 while (progressStatus < 100) {
 progressStatus += 1;
 handler.post(new Runnable() {
 public void run() {
 progressBar.setProgress(progressStatus);
 textView.setText(progressStatus+"/"+progressBar.getMax());
 }
 });
 try {
 Thread.sleep(200);
 } catch (InterruptedException e) {
 e.printStackTrace();
 }
 }
 }
 }).start();
 }
}
```

9. Write a program to display 15 buttons using Grid view.
Ans:
```xml
<?xml version="1.0" encoding="utf-8"?>
<GridView xmlns:android="http://schemas.android.com/apk/res/android"
 android:layout_width="match_parent"
 android:layout_height="match_parent" android:numColumns="5"
 android:columnWidth="50dp"
```

```
 android:stretchMode="columnWidth"
 android:id="@+id/gridView">
</GridView>

package com.example.myapplication102;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.GridView;
import android.widget.ImageView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
 GridView gridView;
 static final String[] numbers = new String[] {
 "1","2","3","4","5","6",
 "7","8","9","10","11",
 "12","13","14","15"
 };
 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
 gridView = findViewById(R.id.gridView);
 ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
 android.R.layout.simple_list_item_1, numbers);
 gridView.setAdapter(adapter);
 gridView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
 @Override
 public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
 Toast.makeText(MainActivity.this, (String) parent.getItemAtPosition(position),
Toast.LENGTH_SHORT).show();
 }
 });
 }
 }
```

10.Write a program to display a toast message.
Ans: <?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"

```xml
    tools:context=".MainActivity"
    android:orientation="vertical">
    <Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Show Toast"
    android:layout_gravity="center_horizontal"
    android:layout_margin="24dp"
    android:textSize="16dp"
    android:padding="16dp"
    android:onClick="setCustomToast"/>
</LinearLayout>
```

>>>>custom_toast.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:background="#000"
android:padding="14dp">
    <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Message for you:"
    android:textSize="24sp"
    android:textColor="#FFF"/>
    <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="You have got a mail!"
    android:textSize="14sp"
    android:textColor="#FFF" />
</LinearLayout>
```

MainActivity.java

```java
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.os.Bundle;
import android.view.Gravity;
import android.view.LayoutInflater;
import android.view.View;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
 @Override
 protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
```

```java
    }
    public void setToast(View view) {
    Toast.makeText(this, "Default Toast !", Toast.LENGTH_SHORT).show();
    }
    public void setCustomToast(View view) {
    Context context = getApplicationContext();
    LayoutInflater inflater = getLayoutInflater();
    View toastRoot = inflater.inflate(R.layout.custom_toast,null);
    Toast toast = new Toast(context);
    toast.setView(toastRoot);
    toast.setDuration(Toast.LENGTH_LONG);

    toast.setGravity(Gravity.CENTER_HORIZONTAL|Gravity.CENTER_VERTICAL,0,0);
    toast.show();
    }
    }
```