# IT2417 - Mobile Applications Development

**Lab Session 07**

# Lab1. Linear layout Horizontal orientation

1. Start a new project with blank activity

2. Go to activity_main.xml and change the layout

```
<LinearLayout xmlns:android=http://schemas.android.com/apk/res/android
.
.
 android:orientation="horizontal"
/>
```

3. Drag and drop two buttnos from pallet to design screen
   - change the id and Text in xml or properties window

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:orientation="horizontal"
    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=".MainActivity">

    <TextView android:text="@string/hello_world" android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" Button 1"
        android:id="@+id/button1" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" Button 2"
        android:id="@+id/button2" />

</LinearLayout>
```

4. Build and run app

# Lab2. Linear layout Vertical orientation

1. Work in same project

2. Go to activity_main.xml and change the orientation of layout

```
<LinearLayout xmlns:android=http://schemas.android.com/apk/res/android
.
.
 android:orientation="vertical"
/>
```

3. Build and run app

# Lab3. gravity

1. Work in same project

2. Go to activity_main.xml and add gravity

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:orientation="vertical"
    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=".MainActivity"
    android:gravity="center">
```

3. Build and run app

# Lab4. layout_gravity

1. Work in same project

2. Go to activity_main.xml and add gravity

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:orientation="vertical"
    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=".MainActivity"
    android:gravity="center">
```

3. Build and run app

# Lab5. layout_gravity

1. Work in same project

2. Go to activity_main.xml and add gravity

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:orientation="vertical"
    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=".MainActivity"
    android:gravity="center">
```

3. Build and run app

# Lab6. Layout Width and Hieght

1. Work in same project

2. Go to activity_main.xml and do changes to **layout_width and layout_height**

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="wrap_content"
    android:orientation="vertical"
    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=".MainActivity"
    android:gravity="start"

    android:background="#bff533"
    android:id="@+id/L1">
```

3. Build and run app
4. Try sape propertis also in pixcel

layout_width="match_parent"

layout_width="wrap_content

layout_width="50dp

# Lab7. layout_weight

1. Start a new project with blank activity

2. Go to activity_main.xml and change the layout as given

```
<LinearLayout xmlns:android=http://schemas.android.com/apk/res/android
.
.
 android:orientation="horizontal"
/>
```

3. Drag and drop another text view from pallet to design screen
   a. change the properties in xml or properties window as given below

```
<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:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    android:orientation="horizontal"
    android:paddingBottom="@dimen/activity_vertical_margin"
    tools:context=".MainActivity"
    android:id="@+id/TextViewLight_Blue">

    <TextView
        android:text="Light Blue"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:id="@+id/textView1"
        android:layout_weight=".25"
        android:background="@android:color/holo_blue_light"
         />

    <TextView
        android:text="Dark Blue"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:id="@+id/textView2"
        android:layout_weight=".75"
        android:background="@android:color/holo_blue_dark" />
</LinearLayout>
```

# Lab8. Relative Layout

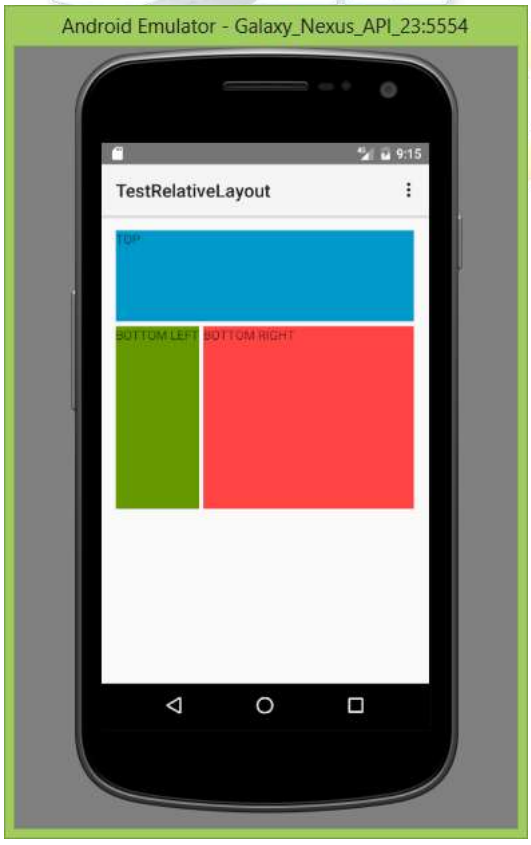
1. Start a new project with blank activity

2. Drag and drop another two text views from pallet to design screen
   a. change the textViewproperties in xml or properties window as given below

```
<TextView
    android:text="TOP"
    android:layout_width="match_parent"
    android:layout_height="100dp"
    android:id="@+id/TextViewTop"
    android:background="@android:color/holo_blue_dark" />
<TextView
    android:text="BOTTOM LEFT"
    android:layout_width="wrap_content"
    android:layout_height="200dp"
    android:id="@+id/textViewBottomLeft"
    android:background="@android:color/holo_green_dark"
    android:layout_below="@+id/TextViewTop"/>
<TextView
    android:text="BOTTOM RIGHT"
    android:layout_width="wrap_content"
    android:layout_height="200dp"
    android:id="@+id/textBottomRight"
    android:layout_below="@+id/TextViewTop"
    android:layout_toEndOf="@+id/textViewBottomLeft"
    android:background="@android:color/holo_red_light" />
```

3. Edit the xml as given below to align right the bottom right view

```
<TextView
    android:text="BOTTOM RIGHT"
    android:layout_width="wrap_content"
    android:layout_height="200dp"
    android:id="@+id/textBottomRight"
    android:layout_below="@+id/TextViewTop"
    android:layout_toEndOf="@+id/textViewBottomLeft"
    android:layout_alignParentRight="true"
    android:background="@android:color/holo_red_light" />
```

4. Edit the xml as given below set margin between text views

```
<TextView
    android:text="TOP"
    android:layout_width="match_parent"
    android:layout_height="100dp"
    android:id="@+id/TextViewTop"
    android:background="@android:color/holo_blue_dark"
    android:layout_marginBottom="5dp" />

<TextView
    android:text="BOTTOM LEFT"
    android:layout_width="wrap_content"
    android:layout_height="200dp"
    android:id="@+id/textViewBottomLeft"
    android:background="@android:color/holo_green_dark"
    android:layout_below="@+id/TextViewTop"
    android:layout_marginRight="5dp" />

<TextView
    android:text="BOTTOM RIGHT"
    android:layout_width="wrap_content"
    android:layout_height="200dp"
    android:id="@+id/textBottomRight"
    android:layout_below="@+id/TextViewTop"
    android:layout_toEndOf="@+id/textViewBottomLeft"
    android:layout_alignParentRight="true"
    android:background="@android:color/holo_red_light" />
```