Android Layouts

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layout יש לנו 6 סוגי

- 1. LinearLayout
- 2. RalativeLayout
- 3. TableLayOut
- 4. FrameLayOut

Examples for LinearLayout

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  android:orientation="vertical"
  android:layout width="fill parent"
  android:layout height="fill parent"
  android:gravity="center">
  <TextView
    android:layout width="fill parent"
    android:id="@+id/TitleLabel"
    android:layout_height="wrap_content"
    android:text="My First LayOut"
    android:gravity="center horizontal"
    android:textSize="30dp" />
  <ImageView
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:src="@drawable/news"
    android:maxHeight="250dp"
    android:maxWidth="250dp"
    android:id="@+id/Photo" />
</LinearLayout>
```

דרך הקוד layout 1 דרך

```
public class MainActivity extends Activity {
       @Override
       protected void onCreate(Bundle savedInstanceState) {
               super.onCreate(savedInstanceState);
               //setContentView(R.layout.activity main);
                 super.onCreate(savedInstanceState);
                 // setContentView(R.layout.main);
                 TextView label = new TextView(this);
                 label.setText("My first layout");
                 label.setTextSize(20);
                 label.setGravity(Gravity.CENTER HORIZONTAL);
                 ImageView pic = new ImageView(this);
                 pic.setImageResource(R.drawable.news);
                 pic.setLayoutParams(new LayoutParams(LayoutParams.WRAP_CONTENT, LayoutParams.WRAP_CONTENT));
                 pic.setAdjustViewBounds(true);
                 pic.setScaleType(ScaleType.FIT_XY);
                 pic.setMaxHeight(250);
                 pic.setMaxWidth(250);
                 LinearLayout II = new LinearLayout(this);
                 II.setOrientation(LinearLayout.VERTICAL);
                 II.setLayoutParams(new LayoutParams(LayoutParams.FILL PARENT, LayoutParams.FILL PARENT));
                 II.setGravity(Gravity.CENTER);
                 II.addView(label);
                 II.addView(pic);
                 setContentView(II);
```



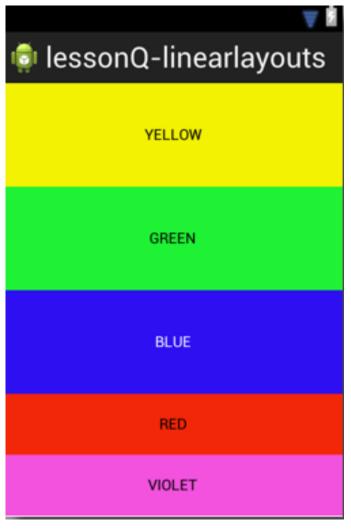
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  android:layout_width="fill_parent" android:layout_height="fill_parent"
  android:orientation="vertical">
  <TextView android:text="YELLOW" android:id="@+id/TV2"
    android:layout_height="wrap_content" android:layout_width="fill_parent"
    android:layout weight=".2" android:background="#F2F202"
    android:gravity="center" android:textColor="#000"></TextView>
  <TextView android:text="GREEN" android:id="@+id/TV3"
    android:layout height="wrap content" android:layout width="fill parent"
    android:layout weight=".2" android:background="#1FF235" android:gravity="center"
    android:textColor="#000"></TextView>
  <TextView android:text="BLUE" android:id="@+id/TV4"
    android:layout_height="wrap_content" android:layout_width="fill_parent"
    android:layout weight=".2" android:background="#2D0FF2" android:gravity="center"
    android:textColor="#fff"></TextView>
       <TextView android:text="RED" android:id="@+id/TV5"
    android:layout height="wrap content" android:background="#F22707"
    android:layout width="fill parent" android:layout weight=".1"
    android:gravity="center" android:textColor="#000"></TextView>
  <TextView android:text="VIOLET" android:id="@+id/TextView07"</p>
    android:layout height="wrap content" android:layout width="fill parent"
    android:layout_weight=".1" android:background="#F252DD"
    android:gravity="center" android:textColor="#000"></TextView>
</LinearLayout>
```

דרך הקוד layout 2 הגדרת

```
public class MainActivity extends Activity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        //setContentView(R.layout.activity_main);
        super.onCreate(savedInstanceState);
        // setContentView(R.layout.main);
        TextView tv1 = new TextView(this);
        tv1.setText("HOW DO U FEEL?");
        tv1.setTextSize(20);
        tv1.setGravity(Gravity.CENTER);
        TextView tv2 = new TextView(this);
        tv2.setTextSize(20);
        tv2.setGravity(Gravity.CENTER);
        tv2.setText("FIND");
```

```
TextView tv3 = new TextView(this);
                tv3.setTextSize(20);
                tv3.setGravity(Gravity.CENTER);
                tv3.setText("LOVE YOU");
                LinearLayout II = new LinearLayout(this);
                II.setOrientation(LinearLayout.VERTICAL);
                II.setLayoutParams(new LayoutParams
(LayoutParams.FILL PARENT, LayoutParams.FILL PARENT));
                II.setGravity(Gravity.CENTER);
                II.addView(tv1);
                II.addView(tv2);
                II.addView(tv3);
                setContentView(II);
```

Example 2



```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http:</pre>
//schemas.android.com/apk/res/android"
  android:layout_width="fill_parent"
  android:layout height="fill parent"
  android:paddingLeft="16dp"
  android:paddingRight="16dp"
  android:orientation="vertical"
  android:weightSum="100" >
  <EditText
     android:layout_width="fill_parent"
     android:layout height="wrap content"
     android:hint="to"
     android:layout weight="7"
     />
```

```
<EditText
    android:layout width="fill parent"
     android:layout height="wrap content"
    android:hint="subject"
     android:layout weight="7"
     />
  <EditText
    android:layout width="fill parent"
    android:layout height="wrap content"
     android:layout weight="79"
    android:gravity="top"
    android:hint="message" />
  <Button
    android:layout width="100dp"
    android:layout height="wrap content"
    android:layout gravity="right"
    android:layout weight="7"
    android:text="send" />
</LinearLayout>
```

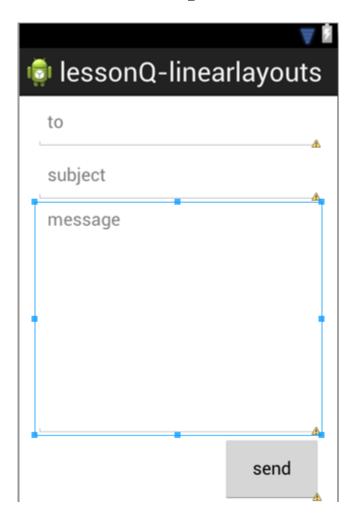


Table LayOut

TableLayOut-example 1

```
<TableLayout
       android:layout width="fill parent"
       android:layout height="fill parent"
       xmlns:android="http://schemas.android.com/apk/res/android">
       <TableRow>
               <Button
               android:id="@+id/backbutton"
               android:text="Back"
               android:layout_width="wrap_content"
               android:layout height="wrap content" />
       </TableRow>
       <TableRow>
               <TextView
               android:text="First Name"
               android:layout width="wrap content"
               android:layout_height="wrap_content"
               android:layout_column="2" />
               <EditText
               android:width="100px"
               android:layout width="wrap content"
               android:layout height="wrap content" />
       </TableRow>
```

example 1 - TableLayout



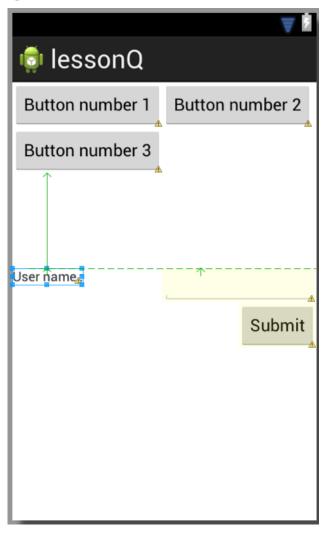
RelativeLayout

RelativeOut-example 1

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.</p>
com/apk/res/android"
  android:layout width="fill parent"
  android:layout height="fill parent" >
   <Button
    android:id="@+id/btn1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Button number 1"/>
  <Button
    android:id="@+id/btn2"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:text="Button number 2"
    android:layout toRightOf="@+id/btn1"/>
   <Button
    android:id="@+id/btn3"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:text="Button number 3"
    android:layout below="@+id/btn1"/>
```

```
<TextView
     android:id="@+id/tv1"
     android:layout width="wrap content"
     android:layout height="wrap content"
     android:layout below="@+id/btn3"
     android:layout marginTop="100dp"
     android:text="User name:"
<EditText
     android:id="@+id/et1"
     android:layout_width="wrap_content"
     android:layout height="wrap content"
     android:layout alignParentRight="true"
     android:layout alignTop="@+id/tv1"
     android:layout toRightOf="@+id/btn3" />
   <Button
     android:id="@+id/btnSubmit"
     android:layout width="wrap content"
     android:layout height="wrap content"
     android:layout alignParentRight="true"
     android:layout below="@+id/et1"
     android:text="Submit" />
</RelativeLayout>
```

RelativeLayout example 1



FrameLayout

FrameLayout example 1

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  android:layout_width="fill_parent"
  android:layout height="fill parent">
  <ImageView
    android:id="@+id/Img1"
    android:layout height="300dp"
    android:layout_width="300dp"
    android:src="@drawable/news">
  </lmageView>
  <TextView
    android:layout width="fill parent"
    android:layout height="wrap content"
    android:textColor="#000"
    android:textSize="20dp"
    android:text="Title of picture" />
```

```
<TextView
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="info of picture"
    android:layout_gravity="bottom"
    android:gravity="right"
    android:textColor="#000"
    android:textSize="50sp" />
</FrameLayout>
```

Frame layout code example 1

```
protected void onCreate(Bundle savedInstanceState) {
           super.onCreate(savedInstanceState);
               super.onCreate(savedInstanceState);
               TextView tv1 = new TextView(this);
               tv1.setText("Title of picture");
               tv1.setTextSize(50);
               tv1.setTextColor(Color.BLACK);
               TextView tv2 = new TextView(this);
               tv2.setLayoutParams(new LayoutParams(LayoutParams.FILL PARENT, LayoutParams.
WRAP CONTENT, Gravity.BOTTOM));
               tv2.setTextSize(40);
               tv2.setGravity(Gravity.RIGHT);
               tv2.setText("info of picture");
               tv2.setTextColor(Color.WHITE);
               ImageView iv1 = new ImageView(this);
               iv1.setImageResource(R.drawable.news);
               iv1.setLayoutParams(new LayoutParams(LayoutParams.FILL_PARENT, LayoutParams.
FILL PARENT));
               FrameLayout f = new FrameLayout(this);
               f.setLayoutParams(new LayoutParams(LayoutParams.FILL PARENT, LayoutParams.
FILL PARENT));
               f.addView(iv1);
               f.addView(tv1);
               f.addView(tv2);
               setContentView(fl);
```

framelayout example 1



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שיעורי בית

- 1. צור מסך LinearLayOut הכולל טופס הרשמה
 - text תיבת + firstname .a
 - text תיבת + lastname .b
 - text תיבת + address .c
 - text תיבת + email .d
 - e. כפתור submit לאישור.
 - הוסף תמונת רקע למסך.
- 2. בנה את אותו המסך באמצעות TableLayout
- 3. סדר 9 תמונות ב-3 שורות ו-3 עמודות בגודל 30*30 הוסף למסך כותרת הגלריה שלי. בנה תרגיל זה באמצעות tablelayout ו-
- 4. סדר 9 תמונות הכוללות תמונה + textview המסביר על התמונה + textview המציג את שם מצלם התמונה. הוסף כותרת למסך.
 - 5. צור מערך של 9 תמונות.מקם 3 כפתורים בראש המסך אחד ליד השני לחיצה על
 - a. הכפתור הראשון תציג רק את השורה הראשונה של התמונות
 - b. לחיצה על הכפתור השני תציג 2 שורות של תמונות
 - . .c לחיצה על הכפתור השלישי תציג 3 תמונות על המסך. .

יום ללא תכנות הוא יום מבוזבז!