## **Table Layout**

In android, TableLayout is a ViewGroup subclass that is used to display the child View elements in rows and columns.



Pictorial representation of table layout in android applications

Attributes	Where it is used	Why it is used
android:stretchColumns	TableLayout	When a column width is less and you need to expand(or stretch) it, you use this attribute.
android:shrinkColumns	TableLayout	When you do not need the extra space in a column, you can use this attribute to shrink and remove the space.
android:collapseColumns	TableLayout	It hides the column of the given index in the TableLayout.
android:layout_span	Any View inside the TableRow	If a view takes only one column width but when you want your view to take more than one column space, then you can use this attribute.
android:layout_column	Any view inside the TableRow	When you want your view present in the first TableRow to appear below the other TableRow's view, you can use this attribute.

## Design the following screen



```
<?xml version="1.0" encoding="utf-8"?>
    <TableLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
      xmlns:app="http://schemas.android.com/apk/res-auto"
      xmlns:tools="http://schemas.android.com/tools"
      android:layout width="match parent"
      android:layout height="wrap content"
      android:layout_margin="80dp"
      tools:context=".MainActivity">
      <TableRow android:padding="5dp" >
        <TextView
          android:id="@+id/textView3"
          android:layout width="wrap content"
          android:layout height="wrap content"
          android:text="@string/text"
          android:textSize="18dp"
          android:fontFamily="sans-serif-medium"
          android:textColor="@color/teal 700" />
      </TableRow>
```

<tablerow< th=""><th><tablerow android:padding="5dp"></tablerow></th></tablerow<>	<tablerow android:padding="5dp"></tablerow>
android:background="@color/purple_200"	
android:padding="5dp" >	<textview android:id="@+id/textView7"</textview 
<textview android:id="@+id/textView4" android:layout_height="wrap_content" android:layout_weight="1" android:layout_width="0dp" android:textcolor="@color/white" android:textsize="14dp"></textview> <textview android:d="@+id/textView6" android:layout_height="wrap_content" android:layout_weight="1" android:layout_width="0dp" android:text="Marks" android:textcolor="@color/white"></textview>	android:layout_height="wrap_content" android:layout_height="wrap_content" android:textSize="14dp" android:layout_weight="1" android:gravity="center" android:textColor="@color/black" /> <textview android:dext="Alex" android:gravity="center" android:layout_height="wrap_content" android:layout_weight="1" android:layout_width="0dp" android:textcolor="@color/black"></textview> <textview android:gravity="center" android:layout_height="wrap_content" android:layout_weight="1" android:layout_width="0dp" android:text="23"></textview>

```
<TableRow android:padding="5dp" >
                                               <TableRow android:padding="5dp" >
      <TextView
                                               <TextView
        android:id="@+id/textView10"
                                                 android:id="@+id/textView13"
        android:layout width="0dp"
                                                 android:layout width="0dp"
    android:layout height="wrap content"
                                                 android:layout_height="wrap_content"
        android:textSize="14dp"
                                                 android:textSize="14dp"
        android:layout weight="1"
                                                 android:layout weight="1"
        android:text="2"
                                                 android:text="3"
        android:gravity="center"
                                                 android:gravity="center"
        android:textColor="@color/black" />
                                                 android:textColor="@color/black" />
      <TextView
                                               <TextView
        android:id="@+id/textView11"
                                                 android:id="@+id/textView14"
        android:layout width="0dp"
                                                 android:layout width="0dp"
    android:layout height="wrap content"
                                                 android:layout height="wrap content"
        android:textColor="@color/black"
                                                 android:textColor="@color/black"
        android:layout weight="1"
                                                 android:layout weight="1"
        android:gravity="center"
                                                 android:gravity="center"
        android:text="Meena" />
                                                 android:text="Rita" />
      <TextView
                                               <TextView
        android:id="@+id/textView12"
                                                 android:id="@+id/textView15"
        android:layout width="0dp"
                                                 android:layout width="0dp"
                                                 android:layout height="wrap content"
    android:layout height="wrap content"
                                                 android:textColor="@color/black"
        android:textColor="@color/black"
                                                 android:layout weight="1"
        android:layout weight="1"
                                                 android:gravity="center"
        android:gravity="center"
                                                 android:text="24" />
        android:text="20" />
                                               </TableRow>
    </TableRow>
```

```
<TableRow android:padding="5dp" >
<TableRow android:padding="5dp" >
                                                      <TextView
<TextView
                                                        android:id="@+id/textView1"
  android:id="@+id/textView16"
                                                        android:layout_width="0dp"
  android:layout_width="0dp"
                                                        android:layout_height="wrap_content"
  android:layout_height="wrap_content"
                                                        android:textSize="14dp"
  android:textSize="14dp"
                                                        android:layout_weight="1"
  android:layout weight="1"
                                                        android:text="5"
  android:text="4"
                                                        android:gravity="center"
  android:gravity="center"
                                                        android:textColor="@color/black"/>
  android:textColor="@color/black"/>
                                                      <TextView
<TextView
                                                        android:id="@+id/textView2"
  android:id="@+id/textView17"
                                                        android:layout width="0dp"
  android:layout_width="0dp"
                                                        android:layout_height="wrap_content"
  android:layout_height="wrap_content"
                                                        android:textColor="@color/black"
  android:textColor="@color/black"
                                                        android:layout_weight="1"
  android:layout_weight="1"
                                                        android:gravity="center"
  android:gravity="center"
                                                        android:text="Pari" />
  android:text="Vijay" />
                                                      <TextView
<TextView
                                                        android:id="@+id/textView19"
  android:id="@+id/textView18"
                                                        android:layout_width="0dp"
  android:layout_width="0dp"
                                                        android:layout height="wrap content"
  android:layout height="wrap content"
                                                        android:textColor="@color/black"
  android:textColor="@color/black"
                                                        android:layout_weight="1"
  android:layout weight="1"
                                                        android:gravity="center"
  android:gravity="center"
                                                        android:text="20" />
  android:text="25" />
                                                      </TableRow>
</TableRow>
                                                      </TableLayout>
```

## One more Example



```
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:stretchColumns="1">
    <TableRow android:padding="5dip">
        <TextView
            android:layout height="wrap content"
            android:text="Student Enrolment Form"
            android:layout_span="2"
            android:gravity="center_horizontal"
            android:textSize="28dip" />
    </TableRow
    <TableRow>
        <TextView
            android:layout height="wrap content"
            android:text="Student Id:"
            android:layout_column="0"
            android:textStyle="bold" />
        <EditText
            android:id="@+id/st_id"
            android: layout_height="wrap_content"
            android:layout column="1"/>
    </TableRow>
```

```
<TableRow>
        <TextView
            android: layout height="wrap content"
            android:text="Name:"
            android:layout_column="0"
            android:textStyle="bold" />
        <EditText
            android:id="@+id/name"
            android: layout_height="wrap_content"
            android:scrollHorizontally="true" />
    </TableRow>
    <TableRow>
        <TextView
            android:layout_height="wrap_content"
            android:text="Fee Paid:"
            android:textStyle="bold" />
        <EditText
            android:id="@+id/fee_paid"
            android:layout_height="wrap_content" />
    </TableRow>
    <TableRow>
        <Button
            android:id="@+id/add_button"
            android:text="Add Student"
            android:layout height="wrap content" />
        <Button
            android:id="@+id/cancel button"
            android:text="Cancel"
            android:layout height="wrap content" />
    </TableRow>
</TableLayout>
```

## Reference

- For strech/shrink columns
  - https://www.youtube.com/watch?v=KZiP73VHSwY
- For collapseColumns(hiding columns)
  - https://www.youtube.com/watch?v=x0X19LJJGjc
  - https://www.youtube.com/watch?v=DxFnSKnQ-OQ