# Module 3 : UI Design and Data storage

### **Table Layout**

The TableLayout groups views into rows and columns. You use the <TableRow> element to designate a row in the table. Each row can contain one or more views. Each view you place within a row forms a cell. The width of each column is determined by the largest width of each cell in that column.

Consider the content of main.xml shown here:

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

<TableRow>

<TextView

android:text="User Name:" android:width ="120px"

### />

```
<EditText
```

android:id="@+id/txtUserName" android:width="200px" />

</TableRow>

<TableRow>

<TextView

android:text="Password:"

## />

```
<EditText
```

android:id="@+id/txtPassword" android:password="true"

# />

</TableRow>

<TableRow>

<TextView />

```
<CheckBox android:id="@+id/chkRememberPassword"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:text="Remember Password"
/>
</TableRow>
<TableRow>
<Button
android:id="@+id/buttonSignIn"
android:text="Log In" />
</TableRow>
</TableRow>
```

Figure 3-7 shows what the preceding looks like when rendered on the Android Emulator.

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# Figure 3-7

Note that in the preceding example, there are two columns and four rows in the TableLayout. The cell directly under the Password TextView is populated with an <TextView/> empty element. If you don't do this, the Remember Password checkbox will appear under the Password TextView, as shown in Figure 3-8.



# Figure 3-8

## RelativeLayout

The RelativeLayout enables you to specify how child views are positioned relative to each other.

Consider the following main.xml file:

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

### <RelativeLayout

```
android:id="@+id/RLayout"
```

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

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

>

# <TextView

android:id="@+id/lblComments" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Comments"

```
android:layout_alignParentTop="true"
android:layout_alignParentLeft="true"
/>
```

### <EditText

android:id="@+id/txtComments" android:layout\_width="fill\_parent" android:layout\_height="170px" android:textSize="18sp" android:layout\_alignLeft="@+id/lblComments" android:layout\_below="@+id/lblComments" android:layout\_centerHorizontal="true"

#### />

#### <Button

android:id="@+id/btnSave"

android:layout\_width="125px"

android:layout\_height="wrap\_content"

android:text="Save"

android:layout\_below="@+id/txtComments"

android:layout\_alignRight="@+id/txtComments"

## />

### <Button

android:id="@+id/btnCancel"
android:layout\_width="124px"
android:layout\_height="wrap\_content"
android:text="Cancel"
android:layout\_below="@+id/txtComments"
android:layout\_alignLeft="@+id/txtComments"

### />

### </RelativeLayout>

Notice that each view embedded within the RelativeLayout has attributes that enable it to align

with another view. These attributes are as follows:

>> layout\_alignParentTop

- >> layout\_alignParentLeft
- >> layout\_alignLeft
- >> layout\_alignRight
- >> layout\_below
- >> layout\_centerHorizontal

The value for each of these attributes is the ID for the view that you are referencing. The preceding XML UI creates the screen shown in Figure 3-9.

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Figure 3-9