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Roll no: 103

### Chapter 7:

#### Java classes:

```
DateTimePickerDialoug.java
package com.example.chapter7;
import androidx.appcompat.app.AppCompatActivity;
import android.app.DatePickerDialog;
import android.app.DatePickerDialog.OnDateSetListener;
import android.app.TimePickerDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;
import android.widget.TimePicker;
import java.text.DateFormat;
import java.util.Calendar;
public class DateTimePickerDialoug extends AppCompatActivity {
DateFormat fmtDateAndTime= DateFormat.getDateTimeInstance();
TextView lblDateAndTime;
Calendar myCalendar= Calendar.getInstance();
DatePickerDialog.OnDateSetListener d = new OnDateSetListener() {
@Override
public void onDateSet(DatePicker datePicker, int i, int i1, int i2) {
myCalendar.set(Calendar.YEAR, i);
myCalendar.set(Calendar.MONTH, i1);
```

```
myCalendar.set(Calendar.DAY_OF_MONTH, i2);
updateLabel();
}
};
TimePickerDialog.OnTimeSetListener t = new TimePickerDialog.OnTimeSetListener() {
@Override
public void onTimeSet(TimePicker timePicker, int i, int i1) {
myCalendar.set(Calendar.HOUR_OF_DAY, i);
myCalendar.set(Calendar.MINUTE, i1);
updateLabel();
}
};
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_datetimepickerdialoug);
lblDateAndTime= (TextView) findViewById(R.id.lblDateAndTime);
Button btnDate= (Button) findViewById(R.id.btnDate);
btnDate.setOnClickListener(new View.OnClickListener() {
public void onClick(View v) {
new DatePickerDialog(DateTimePickerDialoug.this, d,
myCalendar.get(Calendar.YEAR), myCalendar.get(Calendar.MONTH),
myCalendar.get(Calendar.DAY_OF_MONTH)).show();
}
});
Button btnTime= (Button) findViewById(R.id.btnTime);
btnTime.setOnClickListener(new View.OnClickListener() {
public void onClick(View v) {
new TimePickerDialog(DateTimePickerDialoug.this, t,
myCalendar.get(Calendar.HOUR_OF_DAY),
```

```
myCalendar.get(Calendar.MINUTE), true).show();
}
});
updateLabel();
private void updateLabel() {
lblDateAndTime.setText(fmtDateAndTime.format(myCalendar.getTime()));
}
DigitalAnalogClock.java
package com.example.chapter7;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class DigitalAnalogClock extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_digital_analog_clock);
}
}
Main.java
package com.example.chapter7;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Spinner;
public class Main extends AppCompatActivity implements AdapterView.OnItemSelectedListener {
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
Spinner spinner1 = findViewById(R.id.spinner1);
String[] items = {"Select Options", "Date&Time Picker Dialog", "Digital&Analog Clock", "Tab
widget","Sliding Drawer"};
ArrayAdapter<String> adp = new ArrayAdapter<String>(this,R.layout.textview,items);
spinner1.setAdapter(adp);
spinner1.setOnItemSelectedListener(this);
}
@Override
public void onItemSelected(AdapterView<?> adapterView, View view, int i, long l) {
switch ( adapterView.getId()){
case R.id.spinner1:{
switch(i){
case 0:{
break;
}
case 1:{
startActivity(new Intent(getApplicationContext(),DateTimePickerDialoug.class));
break;
}
case 2:{
startActivity(new Intent(getApplicationContext(),DigitalAnalogClock.class));
break;
}
case 3:{
startActivity(new Intent(getApplicationContext(),Tab_Widget.class));
break;
```

```
}
case 4:{
startActivity(new Intent(getApplicationContext(),SlidingDrawer.class));
break;
}
break;
}
@Override
public void onNothingSelected(AdapterView<?> adapterView) {
}
}
SlidingDrawer.java
package com.example.chapter7;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class SlidingDrawer extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_sliding_drawer);
}
}
Tab_Widget.java
package com.example.chapter7;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TabHost;
```

```
public class Tab_Widget extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_tab_widget);
TabHost tabs=(TabHost)findViewById(R.id.tabhost);
tabs.setup();
TabHost.TabSpec spec;
spec =tabs.newTabSpec("tag1");
spec.setContent(R.id.tab1);
spec.setIndicator("1-Clock");
tabs.addTab(spec);
spec=tabs.newTabSpec("tag2");
spec.setContent(R.id.tab2);
spec.setIndicator("2-Login");
tabs.addTab(spec);
tabs.setCurrentTab(0);
}
XML layouts:
activity_datetimepickerdialoug.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
android:layout_width="match_parent"
android:layout_height="match_parent"
```

tools:context=".DateTimePickerDialoug">

```
<TextView
android:id="@+id/lblDateAndTime"
android:layout_width="match_parent"
android:layout_height="47px"
android:background="#ff000099"
android:textStyle="bold">
</TextView>
<Button
android:id="@+id/btnDate"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="Set the Date">
</Button>
<Button
android:id="@+id/btnTime"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="Set the Time">
</Button>
</LinearLayout>
activity_digital_analog_clock.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
android:layout_height="match_parent"
tools:context=".DigitalAnalogClock">
<DigitalClock
```

```
android:id="@+id/digital"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:background="#ff0000ff"
android:textSize="20px"
android:layout_below="@+id/analog"
android:layout_centerHorizontal="true"
</DigitalClock>
<AnalogClock
android:id="@+id/analog"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_alignParentTop="true"
android:layout_alignParentLeft="true"
</AnalogClock>
</LinearLayout>
activity_main.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".Main">
<Spinner
android:layout_width="wrap_content"
android:layout_height="wrap_content"
```

```
android:id="@+id/spinner1"
/>
</LinearLayout>
activity_sliding_drawer.xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
tools:context=".SlidingDrawer">
<TextView
android:id="@+id/label0"
android:layout_alignParentTop="true"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:background="#ffcc3300"
android:text="SlidingDrawerDemo"
android:textSize="24sp"/>
<SlidingDrawer
android:id="@+id/drawer"
android:layout_alignParentBottom="true"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:handle="@+id/handle"
android:content="@+id/content" >
<ImageView
android:id="@id/handle"
android:layout_width="40sp"
android:layout_height="40sp"
```

```
android:src="@drawable/tray_handle_normal"/>
<LinearLayout
android:id="@id/content"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:orientation="vertical" >
<TextView
android:id="@+id/label1"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:background="#ff006666"
android:text="Line 1"
android:textSize="22sp" />
<TextView
android:id="@+id/label2"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:background="#ff669900"
android:text="Line 2"
android:textSize="22sp"/>
<TextView
android:id="@+id/label3"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:background="#ff0000cc"
android:text="Line 3"
android:textSize="22sp" />
<TextView
android:id="@+id/filler1"
android:layout_width="fill_parent"
```

```
android:layout_height="wrap_content"
android:textSize="6sp" />
<Button
android:id="@+id/btn1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:padding="4px"
android:text=" btn1 -time? " />
<Button
android:id="@+id/btn2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:padding="4px"
android:text=" btn2 -close " />
</LinearLayout>
</SlidingDrawer>
</RelativeLayout>
activity_tab_widget.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
android:layout_height="match_parent"
tools:context=".Tab_Widget">
<TabHost
android:id="@+id/tabhost"
android:layout_width="match_parent"
android:layout_height="match_parent">
```

```
<TabWidget
android:id="@android:id/tabs"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
<FrameLayout
android:id="@android:id/tabcontent"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:paddingTop="62px">
<!--PUT HERE FrameLayout1 --><!--PUT HERE FrameLayout2 -->
< Frame Layout
android:id="@+id/tab1"
android:layout_width="match_parent"
android:layout_height="match_parent">
<include
layout="@layout/tab1"
/>
</FrameLayout>
< Frame Layout
android:id="@+id/tab2"
android:layout_width="match_parent"
android:layout_height="match_parent">
<include
layout="@layout/tab2"/>
</FrameLayout>
</FrameLayout>
</TabHost>
</LinearLayout>
tab1.xml
<?xml version="1.0" encoding="utf-8"?>
```

```
<AnalogClock xmlns:android="http://schemas.android.com/apk/res/android"</p>
android:layout_width="match_parent"
android:layout_height="match_parent"
android:id="@+id/tab1"
</AnalogClock>
tab2.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
android:orientation="vertical"
android:id="@+id/tab2"
android:layout_width="match_parent"
android:layout_height="match_parent">
<TextView
android:id="@+id/caption1"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:background="#ff0000ff"
android:text="Person Name"
android:textSize="20px">
</TextView>
<EditText
android:id="@+id/txtPerson"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:text="txtPerson"
android:textSize="18sp">
</EditText>
<Button
android:id="@+id/btnGo"
```

```
android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="Go">

</Button>

</LinearLayout>

textview.xml

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

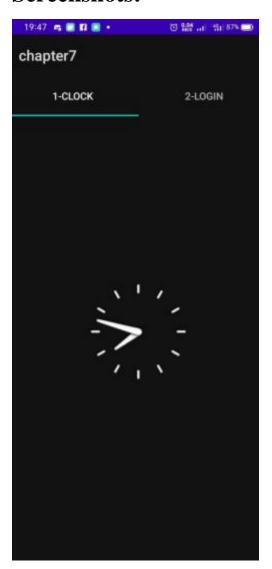
<TextView xmlns:android="http://schemas.android.com/apk/res/android"

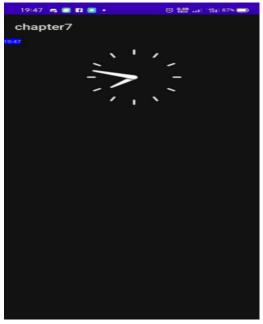
android:layout_width="match_parent"

android:layout_height="match_parent">

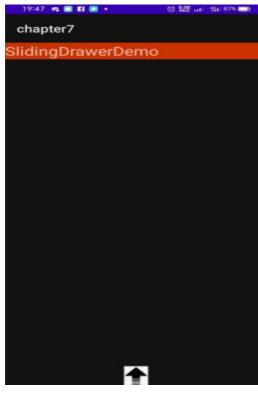
</TextView>
```

# **Screenshots:**



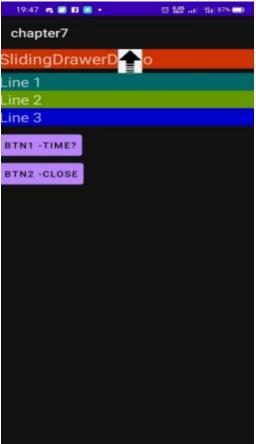












### **Chapter 8**

#### Java classes:

```
MainActivity.java
package com.example.chapter8;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.os.Bundle;
import android.text.Html;
import android.text.Spanned;
import android.view.ContextMenu;
import android.view.Menu;
import android.view.MenuItem;
import android.view.SubMenu;
import android.view.View;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
EditText etMessage1, etMessage2;
Integer[] arrayPointSize = \{10,20,30,40,50\};
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
etMessage1 = findViewById(R.id.etMessage1);
etMessage2 = findViewById(R.id.etMessage2);
registerForContextMenu(etMessage1);
registerForContextMenu(etMessage2);
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
```

```
// only one Option menu per activity
populateMyFirstMenu(menu);
return super.onCreateOptionsMenu(menu);
}
@Override
public boolean onPrepareOptionsMenu(Menu menu){
//populateMyFirstMenu(menu);
return super.onPrepareOptionsMenu(menu);
}
private void populateMyFirstMenu(Menu menu){
int groupId = 0;
//arguments: groupId, optionId, order, title
MenuItem item1 = menu.add(groupId, 1, 1, "10 points");
MenuItem item2 = menu.add(groupId, 2, 2, "20 points");
MenuItem item3 = menu.add(groupId, 3, 3, "30 points");
MenuItem item4 = menu.add(groupId, 4, 4, "40 points");
//menu.add(groupId, 5, 5, "50 points");
menu.add(groupId, 6, 8, "Red text");
menu.add(groupId, 7, 7, "Green Text");
menu.add(groupId, 8, 6, "Blue text");
item1.setIcon(R.drawable.france);
item2.setIcon(R.drawable.germany);
item3.setIcon(R.drawable.uk);
item4.setIcon(R.drawable.us);
item1.setShortcut('1','1');
item2.setShortcut('2','2');
item3.setShortcut('3','3');
item4.setShortcut('4','4');
int smGroupId = 0; // don't care, same as Menu.NONE
int smItemId = 5; // fifth element
```

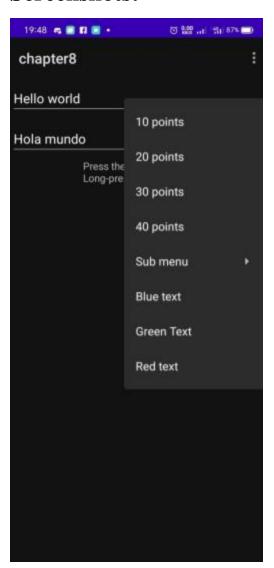
```
int smOrder = 5; // don't care, same as Menu.NONE
SubMenu subMenu = menu.addSubMenu(smGroupId,smItemId,smOrder,"Sub
menu");
subMenu.setHeaderIcon(R.drawable.uk);
subMenu.setIcon(R.drawable.us);
MenuItem sub51 = subMenu.add(smGroupId,5,1,"sub-menu 5-1");
MenuItem sub52 = subMenu.add(smGroupId,5,2,"sub-menu 5-2");
MenuItem sub53 = subMenu.add(smGroupId,5,3,"sub-menu 5-3");
}
public void onCreateContextMenu(ContextMenu menu, View v,
ContextMenuInfo menuInfo) {
super.onCreateContextMenu(menu, v, menuInfo);
if (v.getId() == etMessage1.getId())
// create a menu for etMessage1 box
populateMyFirstMenu(menu);
if (v.getId() == etMessage2.getId()){
// create a menu for etMessage2 box
populateMySecondMenu(menu);
}
}
private void populateMySecondMenu(Menu menu){
int groupId = 0;
//arguments: groupId, optionId, order, title
menu.add(groupId, 9, 1, "Bold");
menu.add(groupId, 10, 2, "Italic");
menu.add(groupId, 11, 3, "Normal");
}
@Override
public boolean onContextItemSelected(MenuItem item) {
return(applyMenuOption(item) ||
```

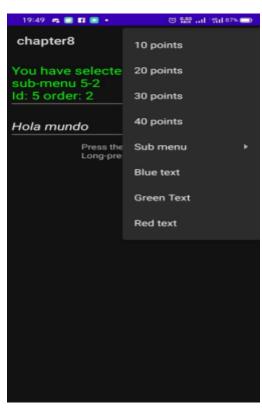
```
super.onContextItemSelected(item) );
}
@Override
public boolean onOptionsItemSelected(MenuItem item) {
return(applyMenuOption(item) ||
super.onOptionsItemSelected(item) );
}
private boolean applyMenuOption(MenuItem item){
int menuItemId = item.getItemId(); // 1, 2, 3, ...11
String strMsg2 = etMessage2.getText().toString();
if (menuItemId < 5) {
// first five option are for setting text size
int newPointSize = arrayPointSize[menuItemId - 1];
etMessage1.setTextSize(newPointSize);
etMessage2.setTextSize(newPointSize);
}
else if (menuItemId == 5) {
etMessage1.setText(
"You have selected: \n" + item.getTitle()
+ "\nId: " + menuItemId
+ " order: " + item.getOrder());
}
else {
// either change color on box text1 or style on text2
if (menuItemId == 6)
etMessage1.setTextColor(Color.RED);
//etMessage1.setTextColor(0xffff0000); // red
else if (menuItemId == 7)
etMessage1.setTextColor(0xff00ff00); // green
else if (menuItemId == 8)
```

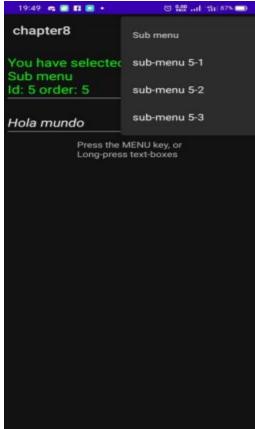
```
etMessage1.setTextColor(0xff0000ff); // blue
else if (menuItemId == 9)
etMessage2.setText(beautify(strMsg2, "BOLD")); //bold
else if (menuItemId == 10)
etMessage2.setText(beautify(strMsg2, "ITALIC")); //italic
else if (menuItemId == 11)
etMessage2.setText(beautify(strMsg2, "NORMAL")); //normal
}
return false;
private Spanned beautify (String originalText, String selectedStyle){
Spanned answer = null;
if (selectedStyle.equals("BOLD"))
answer = Html.fromHtml("<b>" + originalText +"</b");</pre>
else if (selectedStyle.equals("ITALIC"))
answer = Html.fromHtml("<i>" + originalText +"</i>");
else if (selectedStyle.equals("NORMAL"))
answer = Html.fromHtml("<normal>" + originalText +"</normal");</pre>
return answer;
}
XML layouts:
activity_main.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
android:layout width="match parent"
```

```
android:layout_height="match_parent"
tools:context=".MainActivity">
<EditText
android:id="@+id/etMessage1"
android:text="Hello world"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_margin = "5dp" />
<EditText
android:id="@+id/etMessage2"
android:text="Hola mundo"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_margin = "5dp" />
<TextView
android:text="Press the MENU key, or \nLong-press text-boxes"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center" />
</LinearLayout>
```

## **Screenshots:**







### **Chapter 9**

### Java classes:

tools:context=".MainActivity">

```
MainActivity.java
package com.example.chapter9;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Typeface;
import android.os.Bundle;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
TextView textView = findViewById(R.id.custom);
Typeface typeface = Typeface.createFromAsset(getAssets(), "fonts/mvboli.ttf");
textView.setTypeface(typeface);
}
Xml layouts:
activity_main.xml
<?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="match_parent"
android:orientation="vertical"
android:stretchColumns="1"
```

```
<TableRow
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="horizontal"
android:id="@+id/row1">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:background="#ff006666"
android:layout_marginRight="24px"
android:text="sans:"
android:textSize="20sp"
/>
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Hello, world!"
android:textSize="20sp"
android:typeface="sans"
/>
</TableRow>
<TableRow
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="horizontal"
android:id="@+id/row2">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:background="#ff006666"
```

```
android:layout_marginRight="24px"
android:text="sans:"
android:textSize="20sp"
/>
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Hello, world!"
android:textSize="20sp"
android:typeface="serif"
/>
</TableRow>
<TableRow
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="horizontal"
android:id="@+id/row3">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:background="#ff006666"
android:layout_marginRight="24px"
android:text="sans:"
android:textSize="20sp"
/>
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Hello, world!"
android:textSize="20sp"
```

```
android:typeface="monospace"
/>
</TableRow>
<TableRow
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="horizontal"
android:id="@+id/row4">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:background="#ff006666"
android:layout_marginRight="24px"
android:text="sans:"
android:textSize="20sp"
/>
<TextView
android:id="@+id/custom"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Hello, world!"
android:textSize="20sp"
/>
</TableRow>
</TableLayout>
```

## **Screenshot:**

