Practical 2

Programming Resources
Android Resources: (Color, Theme, String, Drawable, Dimension, Image),

a) <u>Defining Color Property.</u>

1. Create a new project and go to: ProjectName>App>src>main>res>values>**colors.xml**
2. Defining new color properties in **colors.xml**

Go to
ProjectName->app->res->values->colors.xml

Colors.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
   <color name="colorPrimary">#008577</color>
   <color name="colorPrimaryDark">#00574B</color>
   <color name="colorAccent">#D81B60</color>

   // Define new colors here using hexadecimal color codes.

   <color name="Red">#FF0000</color>
   <color name="Blue">#0000FF</color>
   <color name="Pink">#FF00FF</color>
   <color name="Cyan">#00FFFF</color>
   <color name="Grey">#AABBFF</color>

</resources>
```

Default Content

Add this code in the colors.xml

Now go to **activity_main.xml** and type the following code:

- Drag and drop LinearLayout(Vertical) From Layout tab in Palette window
- Drag and drop four TextView from Text tab in palette window
- The default Code of one TextView is as follows

```
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="56dp"
    android:text="TextView" />
```

Now call the colors from the colors.xml as

```
android:background="@color/Red"
```

Now the TextView Code looks like

```
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="56dp"
    android:text="TextView"

    android:background="@color/Red"
```

Now the final Code of **activity_main.xml is**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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=".MainActivity">

    <LinearLayout
        android:layout_width="409dp"
        android:layout_height="729dp"
        android:orientation="vertical"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp">

        <TextView
            android:id="@+id/textView"
            android:layout_width="match_parent"
            android:layout_height="56dp"
            android:text="TextView"

            android:background="@color/Red"
```

Add this line only

```
        />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="match_parent"
        android:layout_height="52dp"
        android:text="TextView"

        android:background="@color/Grey"
```

Add this line only

```
        />

    <TextView
        android:id="@+id/textView3"
        android:layout_width="match_parent"
        android:layout_height="59dp"
        android:text="TextView"

        android:background="@color/Blue"
```

Add this line only

```
        />

    <TextView
        android:id="@+id/textView4"
        android:layout_width="match_parent"
        android:layout_height="51dp"
        android:text="TextView"

        android:background="@color/Cyan"
```

Add this line only

```
        />
  </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output

b) Defining Theme Property.

- Defining new theme properties in **styles.xml**
- Create a new project and go to: ProjectName>App>src>main>res>values>**styles.xml**

styles.xml

```
<resources>

   <!-- Base application theme. -->
   <style name="AppTheme" parent="Theme.AppCompat.Light.DarkActionBar">
      <!-- Customize your theme here. -->
      <item name="colorPrimary">@color/colorPrimary</item>
      <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
      <item name="colorAccent">@color/colorAccent</item>


      <item name="android:background">#000000</item>
      <item name="android:textColor">#FFFFAA</item>

   </style>

</resources>
```

Add these lines in styles.xml

Output

c) Defining string property

- Defining paragraph and header property in **strings.xml**
- Create a new project and go to: ProjectName>App>src>main>res>values>**strings.xml**

strings.xml

```
<resources>

<string name="app_name">new</string> <string name="
Heading">Programming Resources</string> <string name=
"Description">

      Android is a mobile operating system developed by Google.
      It is based on a modified version of the Linux
      kernel and other open source software, and is
      designed primarily for touch screen mobile devices
      such as smart phones and tablets
</string>
</resources>
```

Now go to **activity_main.xml** and type the following code

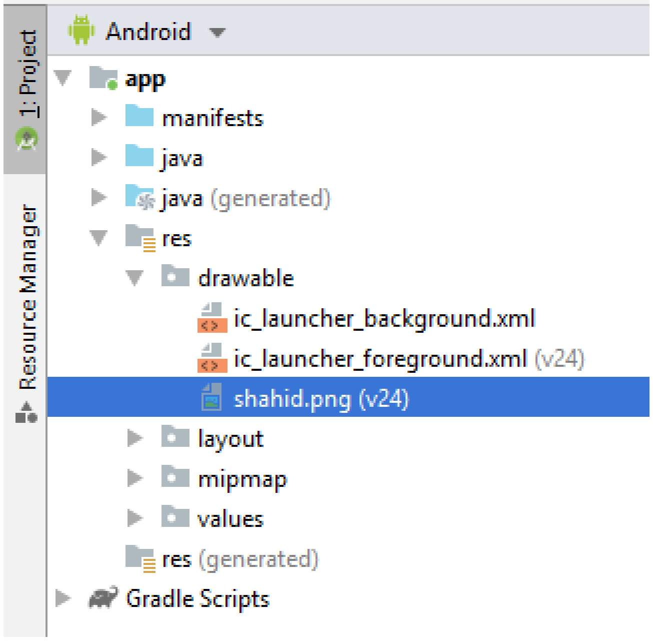
```
<TextView
   android:id="@+id/textView"
   android:layout_width="match_parent"
   android:layout_height="56dp"
   android:background="@color/Red"

   android:text="@string/Heading"          Change this attribute
   android:textSize="24sp" />

<TextView
   android:id="@+id/textView2"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:background="@color/Grey"
                                                Change this attribute
   android:text="@string/Description"
   android:textSize="24sp" />
```

d) Adding images and dimensions

- Adding Images to Application created
- For adding a new image files, do the following:
- ProjectName>App>src>main>res>drawable>Right-click and paste the images that are copied



- Add a new **dim.xml** file and write the following code in dimens.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<resources>
   <dimen name="textview_height">35dp</dimen>
   <dimen name="textview_width">150dp</dimen>
   <dimen name="font_size">26sp</dimen>
</resources>
```

Now go to **activity_main.xml** and type the following code:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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=".MainActivity">

    <LinearLayout
        android:layout_width="409dp"
        android:layout_height="729dp"
        android:orientation="vertical"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp">



        <ImageView
            android:id="@+id/imageView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            app:srcCompat="@drawable/new" />


    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output