

Experiment 8

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AIM: Implement building blocks for Android Application using different layouts (such as linear, relative, and constraint).

Relative Layout:

activity_main.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=".MainActivity">
    <TextView
        android:id="@+id/text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/kanishk"
        android:textSize="24sp"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"/>
```

<Button

```
    android:id="@+id/b1"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="@string/top_right_button"  
    android:layout_alignParentTop="true"  
    android:layout_alignParentEnd="true"/>
```

<Button

```
    android:id="@+id/b2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="@string/top_left_button"  
    android:layout_alignParentTop="true"  
    android:layout_alignParentStart="true"/>
```

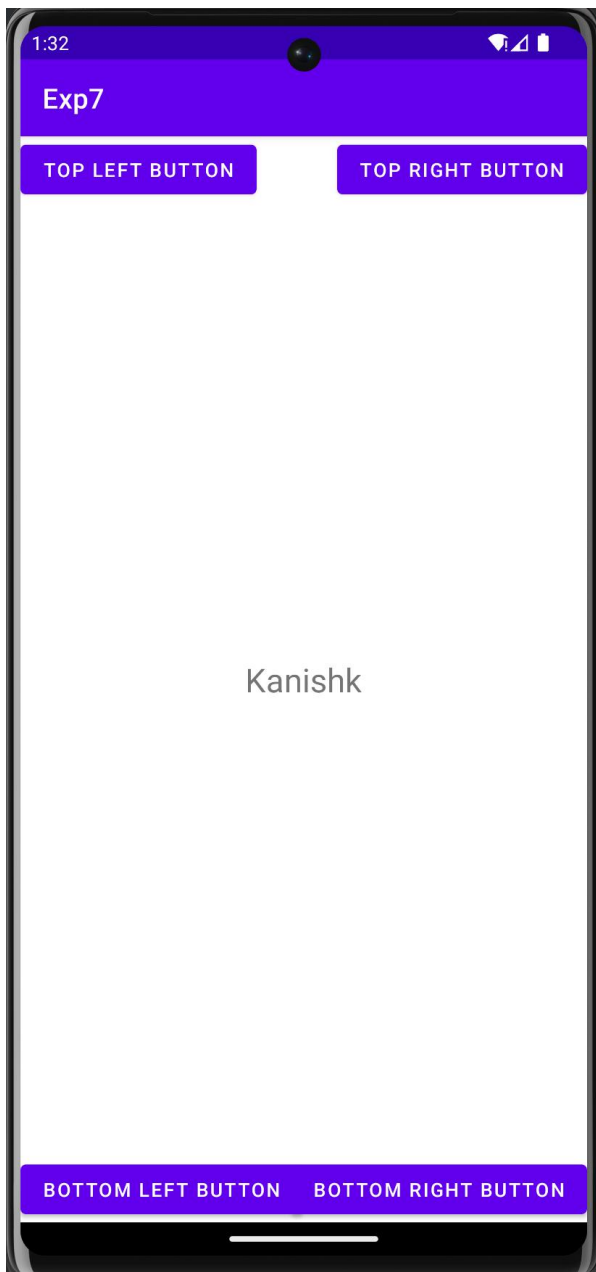
<Button

```
    android:id="@+id/b3"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="@string/bottom_right_button"  
    android:layout_alignParentBottom="true"  
    android:layout_alignParentEnd="true"/>
```

<Button

```
    android:id="@+id/b4"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="@string/bottom_left_button"  
    android:layout_alignParentBottom="true"  
    android:layout_alignParentStart="true"/>
```

</RelativeLayout>



Linear Layout:

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

```
<LinearLayout 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"
android:gravity="center"
android:orientation="vertical">
<TextView
    android:id="@+id/text"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/kanishk"
    android:textSize="24sp"
/>
<Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/top_right_button"
/>
<Button
    android:id="@+id/b2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/top_left_button"
/>
<Button
    android:id="@+id/b3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/bottom_right_button"
```

/>

<Button

android:id="@+id/b4"

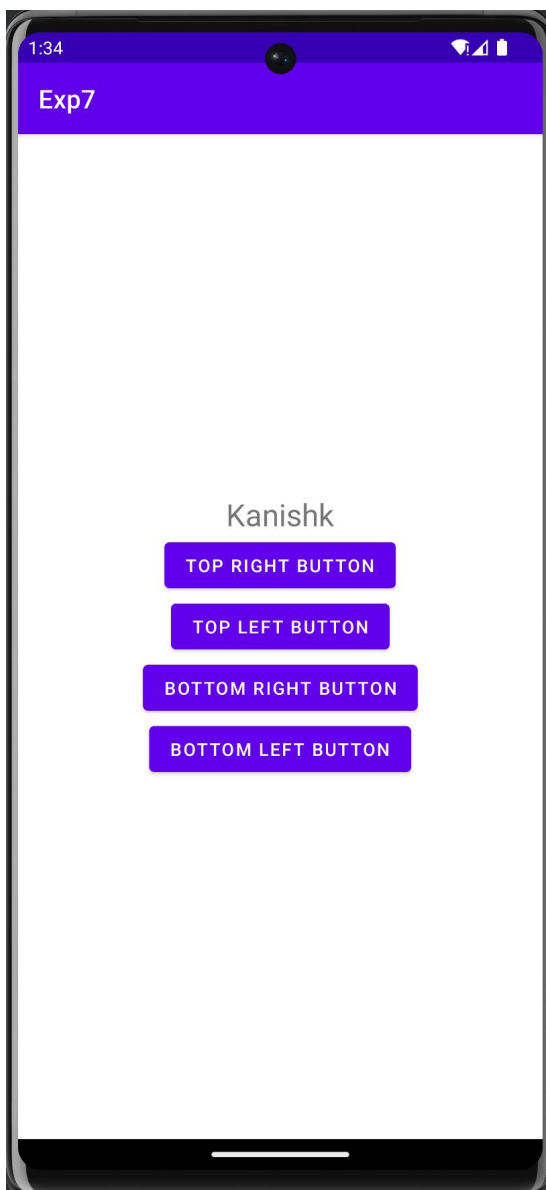
android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="@string/bottom_left_button"

/>

</LinearLayout>



Constraint Layout:

```
<?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">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/kanishk"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/button_1"
        app:layout_constraintBottom_toTopOf="@+id/textView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:ignore="MissingConstraints" />
```

<Button

```
android:id="@+id/b2"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:text="@string/button_2"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toStartOf="@+id/textView"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent"  
tools:ignore="MissingConstraints" />
```

<Button

```
android:id="@+id/b3"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:text="@string/button_3"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toEndOf="@+id/textView"  
app:layout_constraintTop_toTopOf="parent"  
tools:ignore="MissingConstraints" />
```

<Button

```
android:id="@+id/b4"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:text="@string/button_4"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/textView"
```

```
tools:ignore="MissingConstraints" />
```

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

