

Experiment - 3.2

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Subject: MAD Lab

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

2. CODE:

MainActivity.java

```
import android.content.Intent; import
android.os.Bundle;

import android.widget.Button;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Button linearLayoutButton = findViewById(R.id.linear_layout_button);
        Button relativeLayoutButton = findViewById(R.id.relative_layout_button);
        Button absoluteLayoutButton = findViewById(R.id.absolute_layout_button);
        linearLayoutButton.setOnClickListener(v -> {
            Intent intent = new Intent(MainActivity.this,LinearLayoutActivity.class);
            startActivity(intent);
        });
        relativeLayoutButton.setOnClickListener(v -> {
            Intent intent = new Intent(MainActivity.this,RelativeLayoutActivity.class);
            startActivity(intent);
        })
        absoluteLayoutButton.setOnClickListener(v -> {
            Intent intent = new Intent(MainActivity.this, AbsoluteLayoutActivity.class);
            startActivity(intent);
        });
    }
}
```

activity_main.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
```

```
android:layout_width="match_parent"
android:layout_height="match_parent">
```

```
<Button
```

```
android:text="@string/linear_layout"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/linear_layout_button"
android:textSize="18sp"
android:layout_marginTop="40dp"
android:layout_gravity="center_horizontal"/>
```

```
<Button
```

```
android:text="@string/relative_layout"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/relative_layout_button"
android:textSize="18sp"
android:layout_gravity="center_horizontal"/>
```

```
<Button
```

```
android:text="@string/absolute_layout"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/absolute_layout_button"
android:textSize="18sp"
android:layout_gravity="center_horizontal"/>
```

```
<TextView
```

```
android:id="@+id/textView"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="16sp"
android:layout_marginTop="40dp"
android:layout_marginStart="10dp"
android:text="@string/Simran" />
```

```
<TextView
```

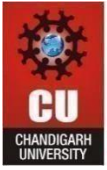
```
android:id="@+id/textView2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="16sp"
android:layout_marginTop="10dp"
android:layout_marginStart="10dp"
android:text="@string/20BCS3400" />
```

```
</LinearLayout>
```

LinearLayoutActivity.java

```
import android.os.Bundle;
```

```
import androidx.appcompat.app.AppCompatActivity;
```



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```
public class LinearLayoutActivity extends AppCompatActivity {  
  
    @Override protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
  
        setContentView(R.layout.activity_linear_layout)  
    }  
}
```

activity_linear_layout.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    android:orientation="vertical"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
    <TextView  
        android:text="@string/element_11"  
        android:textSize="24sp"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
    />  
  
    <EditText  
        android:hint="@string/element_22"  
        android:textSize="24sp"  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
    />  
  
    <Button  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:textSize="24sp"  
        android:text="@string/element_33"  
    />  
</LinearLayout>
```

RelativeLayoutActivity.java

```
import android.os.Bundle;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class RelativeLayoutActivity extends AppCompatActivity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_relative_layout);  
    }  
}
```

```
}  
}
```

activity_relative_layout.xml

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">
```

```
<TextView  
    android:text="@string/element_1"  
    android:textSize="24sp"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:id="@+id/text_view_1"  
    android:layout_alignParentTop="true"  
    android:layout_alignParentStart="true "  
    android:layout_marginStart="16dp"  
    android:layout_marginTop="16dp"/>
```

```
<EditText  
    android:hint="@string/element_2"  
    android:textSize="24sp"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:id="@+id/edit_text_1"  
    android:layout_below="@id/text_view_1"  
    android:layout_alignStart="@id/text_view_1"  
    android:layout_marginTop="16dp"/>
```

```
<Button  
    android:text="@string/element_3"  
    android:textSize="24sp"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:id="@+id/button_1"  
    android:layout_below="@id/edit_text_1"  
    android:layout_alignStart="@id/edit_text_1"  
    android:layout_marginTop="16dp"/>
```

```
</RelativeLayout>
```

AbsoluteLayoutActivity.java

```
import android.os.Bundle;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class AbsoluteLayoutActivity extends AppCompatActivity {
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_absolute_layout);
}
}
```

activity_absolute_layout.xml

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

```
<TextView
    android:text="@string/element_111"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/text_view_1"
    android:textSize="24sp"
    android:layout_x="100dp"
    android:layout_y="100dp"/>
```

```
<EditText
    android:hint="@string/element_222"
    android:textSize="24sp"
    android:layout_width="150dp"
    android:layout_height="wrap_content"
    android:id="@+id/edit_text_1"
    android:layout_x="50dp"
    android:layout_y="200dp"/>
```

```
<Button
    android:text="@string/element_333"
    android:textSize="24sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/button_1"
    android:layout_x="200dp"
    android:layout_y="300dp"/>
```

```
</AbsoluteLayout>
```

OUTPUT:



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