**Experiment 9**

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**Branch: CSE Section/Group: 716/B**

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**Subject Name: MAD Lab**

**AIM** :

Design the Android application using menus and action bar.

**Objective:**

1. To know About the App widgets and how to use them.
2. Learn to scroll and drag in Andros studio.
3. how to code for app widgets.
4. Use of checkbox
5. Use of menu and layout of relative and constraint

**MainActivity.java**

package com.example.experiment8layout;  
  
import androidx.annotation.NonNull;  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.Menu;  
import android.view.MenuInflater;  
import android.view.MenuItem;  
import android.view.View;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
 public void homelayoutButton(View view){  
 setContentView(R.layout.*secondlayout*);  
 }  
  
 public void secondlayoutButton(View view){  
 setContentView(R.layout.*activity\_main*);  
 }  
  
 @Override  
 public boolean onCreateOptionsMenu(Menu menu) {  
 MenuInflater menuInflater=getMenuInflater();  
 menuInflater.inflate(R.menu.*mymenu*,menu);  
 return super.onCreateOptionsMenu(menu);  
 }  
  
 @Override  
 public boolean onOptionsItemSelected(@NonNull MenuItem item) {  
 switch(item.getItemId()){  
 case R.id.*home*:  
 setContentView(R.layout.*activity\_main*);  
 break;  
 case R.id.*secondlayout*:  
 setContentView(R.layout.*secondlayout*);  
 break;  
 case R.id.*exit*:  
 finish();  
 }  
 return super.onOptionsItemSelected(item);  
 }  
}

# MainActivity.xml

<?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/textView2"  
 android:layout\_width="96dp"  
 android:layout\_height="46dp"  
 android:text="Home Layout"  
 android:textSize="20sp"  
 android:minHeight="48dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="210dp"  
 android:onClick="homelayoutButton"  
 android:text="Go to 2nd layout"  
 android:textSize="20sp"  
 android:minHeight="48dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/textView2"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Mymenu.xml**

<?xml version="1.0" encoding="utf-8"?>  
<menu xmlns:android="http://schemas.android.com/apk/res/android">  
  
 <item android:id="@+id/home"  
 android:title="Home"/>  
 <item android:id="@+id/secondlayout"  
 android:title="Second Layout"/>  
 <item android:id="@+id/exit"  
 android:title="Exit"/>  
</menu>

**SecondLayout.xml**

<?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">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="85dp"  
 android:layout\_height="35dp"  
 android:text="2nd Layout"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="secondlayoutButton"  
 android:text="Go To Home"  
 app:layout\_constraintBottom\_toTopOf="@+id/textView"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>

# OUTPUT:



