

“**Experiment 1.3”**

**Student Name: SUMIT KUMAR UID: 20BCS8226**

**Branch: CSE Section/Group: DM-720 A**

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**Subject Name: MAD Lab Subject Code: 20CSP-356**

**Aim:**

Creating application by using widget that contain name and UID of the student.

**Objective:**

Understanding of the specific requirements and challenges when developing for a mobile context.

**System Requirements:**

1. Java Development Kit (JDK)

2. Java Runtime Environment (JRE)

3. Android Studio

**Script:**

**MainActivity.java File:**

import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
}

**activity\_main.xml File:**

<?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:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 **android:text="20BCS8226, SUMIT KUMAR"**  
 android:textSize="40sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="HardcodedText" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

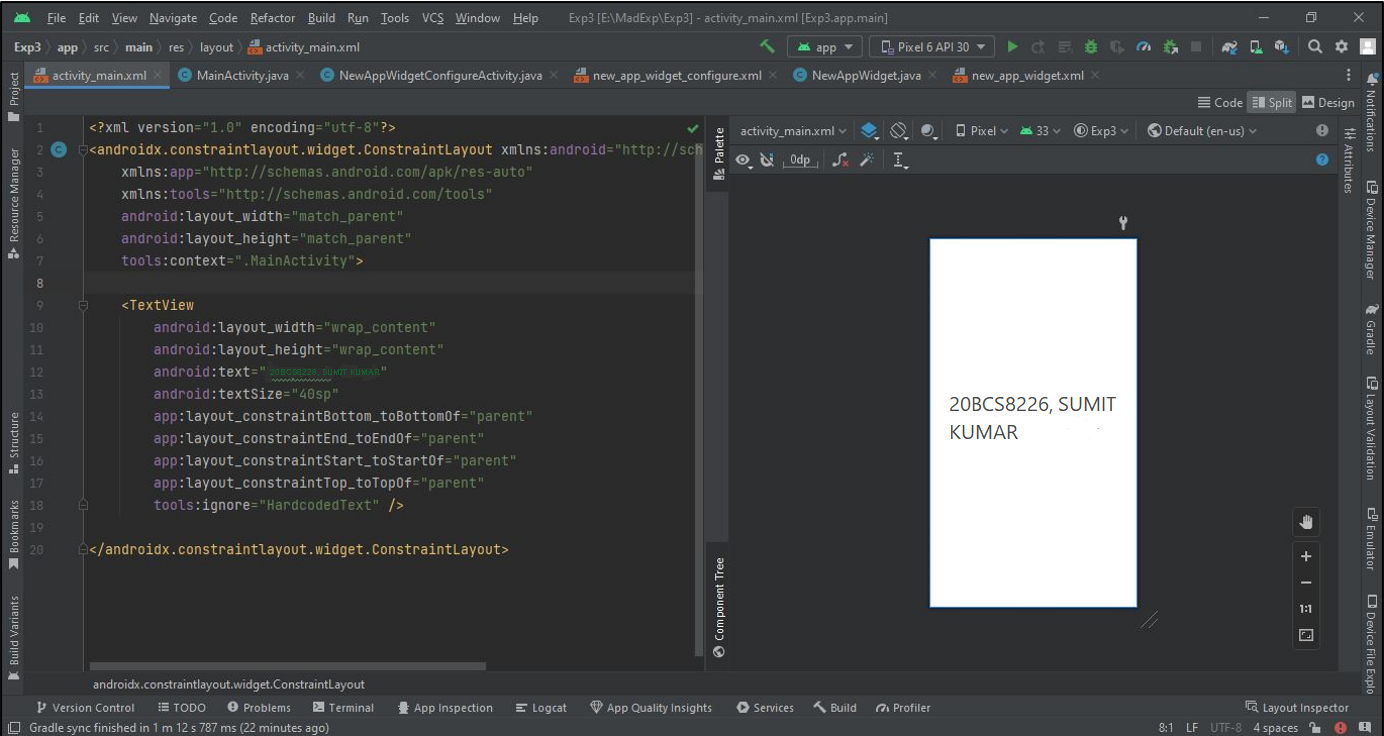
**NewAppWidget.java File:**

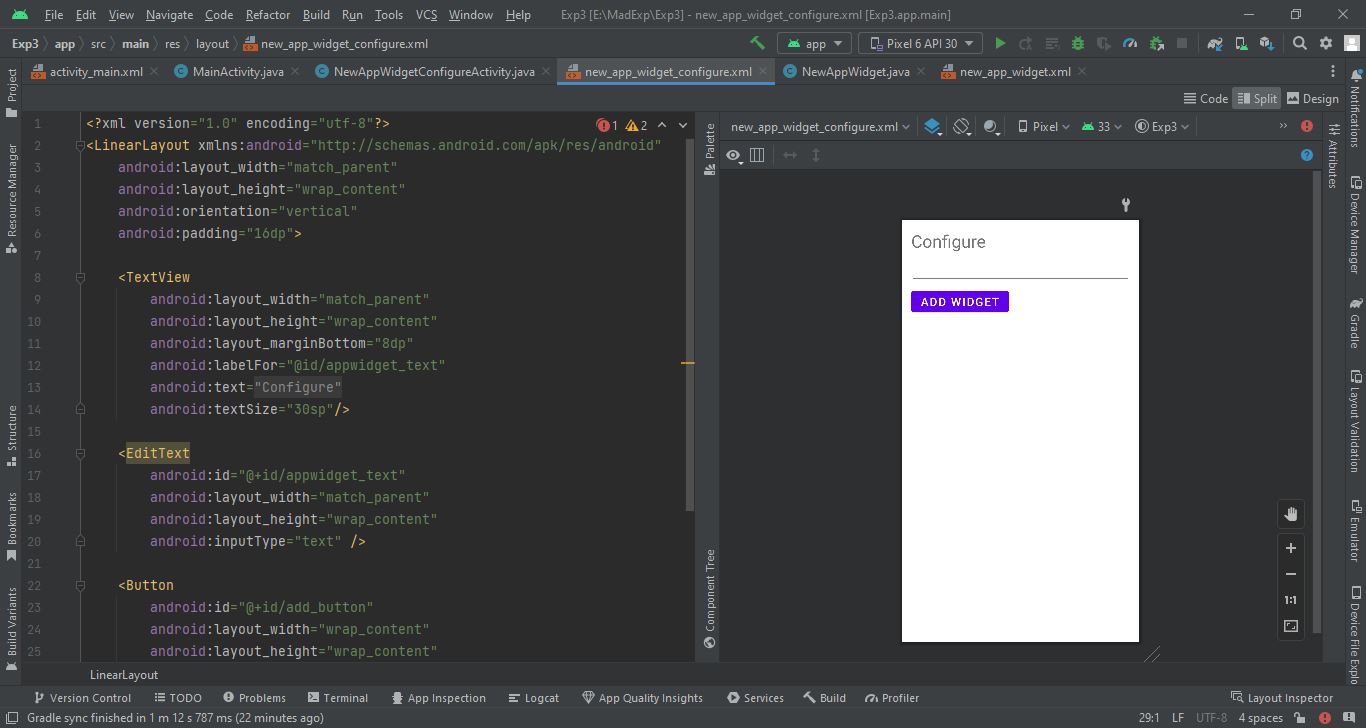
import android.appwidget.AppWidgetManager;  
import android.appwidget.AppWidgetProvider;  
import android.content.Context;  
import android.widget.RemoteViews;

public class NewAppWidget extends AppWidgetProvider {  
  
 static void updateAppWidget(Context context, AppWidgetManager appWidgetManager,  
 int appWidgetId) {  
  
 CharSequence widgetText = NewAppWidgetConfigureActivity.*loadTitlePref*(context, appWidgetId);  
 RemoteViews views = new RemoteViews(context.getPackageName(), R.layout.*new\_app\_widget*);  
 views.setTextViewText(R.id.*appwidget\_text*, widgetText);  
  
 appWidgetManager.updateAppWidget(appWidgetId, views);  
 }  
  
 @Override  
 public void onUpdate(Context context, AppWidgetManager appWidgetManager, int[] appWidgetIds) {  
 for (int appWidgetId : appWidgetIds) {  
 *updateAppWidget*(context, appWidgetManager, appWidgetId);  
 }  
 }  
  
 @Override  
 public void onDeleted(Context context, int[] appWidgetIds) {  
 for (int appWidgetId : appWidgetIds) {  
 NewAppWidgetConfigureActivity.*deleteTitlePref*(context, appWidgetId);  
 }  
 }

@Override  
 public void onEnabled(Context context) {}  
  
 @Override  
 public void onDisabled(Context context) {}  
}

**Output:**



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