# MainActivity.java

package com.example.dialogboxesandmenu; import android.app.AlertDialog;

import android.os.Bundle;

import android.view.ContextMenu; import android.view.LayoutInflater; import android.view.Menu;

import android.view.MenuItem; import android.view.View;

import android.widget.Button;

import android.widget.PopupMenu; import android.widget.Toast;

import androidx.annotation.NonNull;

import androidx.appcompat.app.AppCompatActivity; public class MainActivity extends AppCompatActivity {

Button popupMenuButton, dialogButton, contextMenuButton;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

popupMenuButton = findViewById(R.id.*popupMenuButton*); dialogButton = findViewById(R.id.*dialogButton*);

contextMenuButton = findViewById(R.id.*contextMenuButton*);

popupMenuButton.setOnClickListener(this::showPopupMenu); dialogButton.setOnClickListener(v -> showDialog());

// Required for long press context menu

registerForContextMenu(contextMenuButton);

}

private void showPopupMenu(View v) {

PopupMenu popupMenu = new PopupMenu(this, v);

popupMenu.getMenuInflater().inflate(R.menu.*main\_menu*, popupMenu.getMenu()); popupMenu.setOnMenuItemClickListener(item -> {

Toast.*makeText*(this, "Popup Menu Selected: " + item.getTitle(), Toast.*LENGTH\_SHORT*).show(); return true;

});

popupMenu.show();

}

private void showDialog() {

AlertDialog.Builder builder = new AlertDialog.Builder(this);

View dialogView = LayoutInflater.*from*(this).inflate(R.layout.*dialog\_custom*, null); builder.setView(dialogView);

AlertDialog dialog = builder.create();

Button okButton = dialogView.findViewById(R.id.*okButton*); okButton.setOnClickListener(v -> dialog.dismiss());

dialog.show();

}

// Context Menu @Override

public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu.ContextMenuInfo menuInfo) {

super.onCreateContextMenu(menu, v, menuInfo); getMenuInflater().inflate(R.menu.*context\_menu*, menu);

}

@Override

public boolean onContextItemSelected(@NonNull MenuItem item) {

Toast.*makeText*(this, "Context Menu Selected: " + item.getTitle(), Toast.*LENGTH\_SHORT*).show(); return true;

}

// Options Menu (App bar menu) @Override

public boolean onCreateOptionsMenu(Menu menu) {

getMenuInflater().inflate(R.menu.*main\_menu*, menu); // reuse the same menu return true;

}

@Override

public boolean onOptionsItemSelected(@NonNull MenuItem item) {

Toast.*makeText*(this, "Options Menu Selected: " + item.getTitle(), Toast.*LENGTH\_SHORT*).show(); return true;

}

}

# activity\_main.xml

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

<LinearLayout xmlns:android="<http://schemas.android.com/apk/res/android>" android:layout\_width="match\_parent"

android:layout\_height="match\_parent" android:gravity="center" android:orientation="vertical" android:padding="16dp">

<Button

android:id="@+id/popupMenuButton" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Show Popup Menu" />

<Button

android:id="@+id/dialogButton" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Show Dialog" android:layout\_marginTop="16dp" />

<Button

android:id="@+id/contextMenuButton" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Show Context Menu" android:layout\_marginTop="16dp" />

</LinearLayout>

# res/layout/dialog\_custom.xml

 **dialog\_custom.xml** 

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

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

android:padding="24dp" android:layout\_width="match\_parent" android:layout\_height="wrap\_content">

<TextView

android:id="@+id/dialogText" android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" android:text="This is a custom dialog!" android:textSize="18sp" android:layout\_gravity="center\_horizontal" android:paddingBottom="16dp" />

<Button

android:id="@+id/okButton" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="OK"

android:layout\_gravity="center\_horizontal" />

</LinearLayout>

# res/menu/context\_menu.xml

**context\_menu.xml**

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

<menu xmlns:android="<http://schemas.android.com/apk/res/android>">

<item

android:id="@+id/context\_item1" android:title="Context Option 1" />

<item

android:id="@+id/context\_item2" android:title="Context Option 2" />

</menu>

# res/menu/main\_menu.xml

**main\_menu.xml**

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

<menu xmlns:android="<http://schemas.android.com/apk/res/android>">

<item

android:id="@+id/menu\_item1" android:title="Item 1" />

<item

android:id="@+id/menu\_item2" android:title="Item 2" />

<item

android:id="@+id/menu\_item3" android:title="Item 3" />

</menu>