Experiment-3.3

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Aim: Design the Android application using menus and action bar

Objective: The objective of designing an Android application using menus and the action bar is to create a user-friendly and consistent interface that allows users to navigate, access functionality, and perform actions efficiently

Input/Apparatus Used:
To create an Android application using Fragments, you'll need a development environment, the Android SDK, and an integrated development environment (IDE) for Android app development.

Procedure:
DIFFERENT TYPES OF MENUS
Android provides three types of menus. They are as follows:
OPTION MENU
This type of menu is a primary collection of menu items in an app and is useful for actions that have a global impact on the searching app. The Option Menu can be used forsettings, searching, deleting items, sharing, etc.
Create a new Android project. We need to create a folder menu inside of your project resource directory and add a new XML file to build the menu.
options_menu.xml
Define your menu items with <item> tags: Override onCreateOptionsMenu() in your Activity:
CONTEXT MENU
This type of menu is a floating menu that only appears when a user presses for a long time on an element and is useful for elements that affect the selected content or context frame.
Create Menu Resource:
Create a menu resource file like you did for the options menu.
Instantiate Popup Menu:

POPUP MENU

Using Popup Menu we can display a list of items in a vertical list which presents the view that invokes the menu. Popup Menu is useful since it can provide an overflow of actions which are related to any specific content. Register View for Context Menu.

Source Code:

1. OptionMenu:

The Main Activity File:

```
package com;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Toast;
import com.example.menubardemo.R;
public class OptionMenuBar extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_option_menu_bar);
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
getMenuInflater().inflate(R.menu.option_menubars, menu);
return true;
}
@Override
public boolean onOptionsItemSelected(@NonNull MenuItem item) {
int item_id=item.getItemId();
if(item_id==R.id.option_one){
Toast.makeText(this,"Option 1 clicked",Toast.LENGTH_SHORT).show();
return true;
}
else if(item_id==R.id.option_two){
Toast.makeText(this,"Option 2 clicked",Toast.LENGTH_SHORT).show();
```

```
return true;
}
else if(item_id==R.id.option_three){
Toast.makeText(this,"Option 3 clicked",Toast.LENGTH_SHORT).show();
return true;
}
else{
return super.onOptionsItemSelected(item);
}
}
}
```

2. PopupMenu:

MainActivity.java:

```
package com.example.menubardemo;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.PopupMenu;
import android.widget.Toast;
public class PopupMenuBarDemo extends AppCompatActivity {
Button btn1;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_popup_menu_bar);
btn1=(Button) findViewById(R.id.btn1);
}
public void openPopupMenuBar(View view){
PopupMenu popupMenu=new PopupMenu(PopupMenuBarDemo.this,btn1);
popupMenu.getMenuInflater().inflate(R.menu.popup_menu,popupMenu.getMenu(
));
popupMenu.setOnMenuItemClickListener(new
PopupMenu.OnMenuItemClickListener() {
@Override
public boolean onMenuItemClick(MenuItem item) {
```

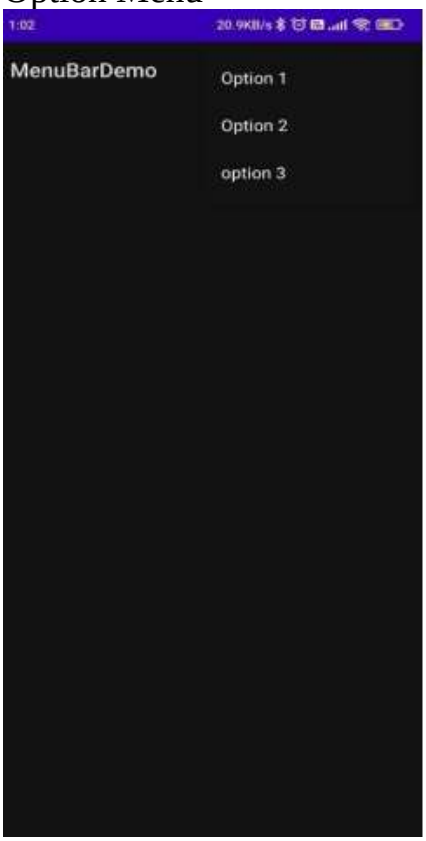
```
Toast.makeText(PopupMenuBarDemo.this,item.getTitle(),Toast.LENGTH_SHOR
T).show();
return true;
}
});
popupMenu.show();
}
}
```

3. ContextMenu:

```
package com.example.contextmenu;
import static com.example.contextmenu.R.*;
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.ListView;
public class ContextMenuBar extends AppCompatActivity {
ListView contacts_list;
String[] contacts={"Nithin","Pooja","Linga","Charupalli"};
@SuppressLint("MissingInflatedId")
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(layout.activity_context_menu_bar);
contacts_list=(ListView) findViewById(R.id.list1);
ArrayAdapter<String> adapter=new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1,contacts);
contacts_list.setAdapter(adapter);
registerForContextMenu(contacts_list);
}
@Override
public void onCreateContextMenu(ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
super.onCreateContextMenu(menu, v, menuInfo);
getMenuInflater().inflate(R.menu.context_menubar,menu);
```

}
}
Output:

Option Menu



PopupMenu

ContextMenu

Observations/Outcomes:
1. Learned about Different types of menus
2. Learned how to create different layouts
3. Learned how to create resource files and menus.
4. Learned how to handle on click event on button