Experiment No.: 12

Aim

Implement Options Menu to navigate to activities

CO3

Develop applications with multiple activities using intents, array adapter, exceptions and options menu.

Procedure

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.coordinatorlayout.widget.CoordinatorLayout
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">
    <com.google.android.material.appbar.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:theme="@style/Theme.Optionmenu.AppBarOverlay">
        <androidx.appcompat.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:background="?attr/colorPrimary"
            app:popupTheme="@style/Theme.Optionmenu.PopupOverlay" />
```

```
</com.google.android.material.appbar.AppBarLayout>

<include layout="@layout/content_main" />

<com.google.android.material.floatingactionbutton.FloatingActionButton

    android:id="@+id/fab"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_gravity="bottom|end"

    android:layout_marginEnd="@dimen/fab_margin"

    android:layout_marginBottom="16dp"

    app:srcCompat="@android:drawable/ic_dialog_email" />

</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

fragment_first.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=".FirstFragment">

    <TextView

        android:id="@+id/textview_first"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="@string/hello_first_fragment"

        app:layout_constraintBottom_toTopOf="@id/button_first"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent" />
```

```xml
    <Button

        android:id="@+id/button_first"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="@string/next"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@id/textview_first" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

fragment_second.xml

```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=".SecondFragment">

    <TextView

        android:id="@+id/textview_second"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        app:layout_constraintBottom_toTopOf="@id/button_second"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent" />

    <Button

        android:id="@+id/button_second"
```

```xml
        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="@string/previous"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@id/textview_second" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_settings.xml

```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=".Settings">

    <TextView

        android:id="@+id/textView"

        android:layout_width="410dp"

        android:layout_height="44dp"

        android:text="Settings"

        android:textSize="20dp"

        tools:layout_editor_absoluteX="0dp"

        tools:layout_editor_absoluteY="103dp" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

menu_main.xml

```xml
<menu 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"

    tools:context="com.fb.optionmenu.MainActivity">

    <item

        android:id="@+id/action_settings"

        android:orderInCategory="100"

        android:title="@string/action_settings"

        app:showAsAction="never" />

</menu>
```

MainActivity.java

```java
package com.fb.optionmenu;

import android.content.Intent;

import android.os.Bundle;

import com.google.android.material.snackbar.Snackbar;

import androidx.appcompat.app.AppCompatActivity;

import android.view.View;

import androidx.navigation.NavController;

import androidx.navigation.Navigation;

import androidx.navigation.ui.AppBarConfiguration;

import androidx.navigation.ui.NavigationUI;

import com.fb.optionmenu.databinding.ActivityMainBinding;

import android.view.Menu;

import android.view.MenuItem;

public class MainActivity extends AppCompatActivity {

    private AppBarConfiguration appBarConfiguration;

    private ActivityMainBinding binding;
```

```java
    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        binding = ActivityMainBinding.inflate(getLayoutInflater());

        setContentView(binding.getRoot());

        setSupportActionBar(binding.toolbar);

        NavController navController = Navigation.findNavController(this,
R.id.nav_host_fragment_content_main);

        appBarConfiguration = new
AppBarConfiguration.Builder(navController.getGraph()).build();

        NavigationUI.setupActionBarWithNavController(this, navController,
appBarConfiguration);

        binding.fab.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                Snackbar.make(view, "Replace with your own action", Snackbar.LENGTH_LONG)

                        .setAction("Action", null).show();

            }

        });

    }


    @Override

    public boolean onCreateOptionsMenu(Menu menu) {

        // Inflate the menu; this adds items to the action bar if it is present.

        getMenuInflater().inflate(R.menu.menu_main, menu);

        return true;

    }

    @Override

    public boolean onOptionsItemSelected(MenuItem item) {

        int id = item.getItemId();
```

```java
        if (id == R.id.action_settings) {

            Intent intent = new Intent(MainActivity.this,Settings.class);

            startActivity(intent);

            return true;

        }

        return super.onOptionsItemSelected(item);

    }

    @Override

    public boolean onSupportNavigateUp() {

        NavController navController = Navigation.findNavController(this,
R.id.nav_host_fragment_content_main);

        return NavigationUI.navigateUp(navController, appBarConfiguration)

            || super.onSupportNavigateUp();

    }

}
```

FirstFragment.java

```java
package com.fb.optionmenu;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import androidx.annotation.NonNull;

import androidx.fragment.app.Fragment;

import androidx.navigation.fragment.NavHostFragment;

import com.fb.optionmenu.databinding.FragmentFirstBinding;

public class FirstFragment extends Fragment {

    private FragmentFirstBinding binding;

    @Override

    public View onCreateView(
```

```
        LayoutInflater inflater, ViewGroup container,

        Bundle savedInstanceState

    ) {

        binding = FragmentFirstBinding.inflate(inflater, container, false);

        return binding.getRoot();

    }

    public void onViewCreated(@NonNull View view, Bundle savedInstanceState) {

        super.onViewCreated(view, savedInstanceState);

        binding.buttonFirst.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                NavHostFragment.findNavController(FirstFragment.this)

                        .navigate(R.id.action_FirstFragment_to_SecondFragment);

            }

        });

    }

    @Override

    public void onDestroyView() {

        super.onDestroyView();

        binding = null;

    }

}
```
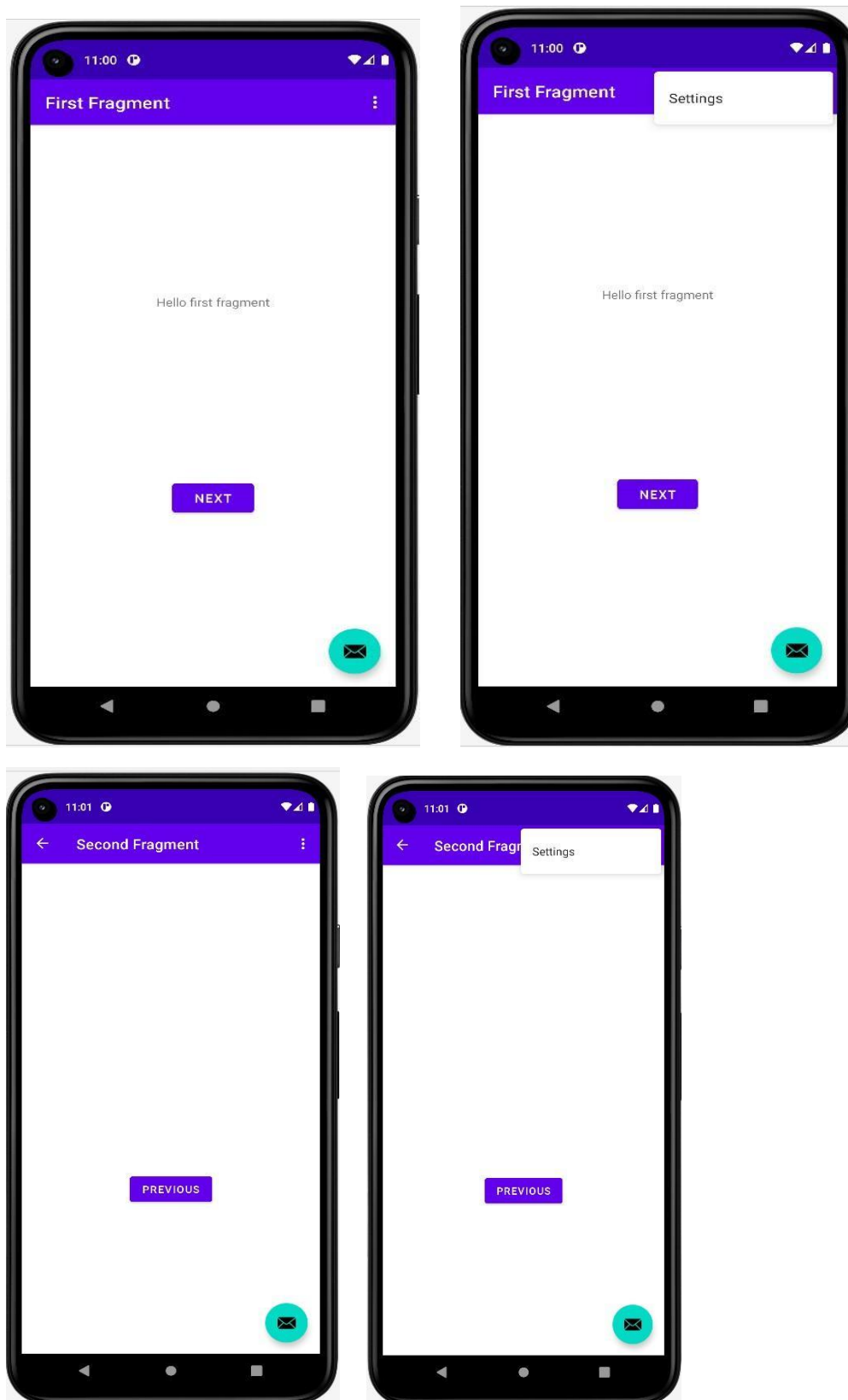
SecondFragment.java

```
package com.fb.optionmenu;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;
```
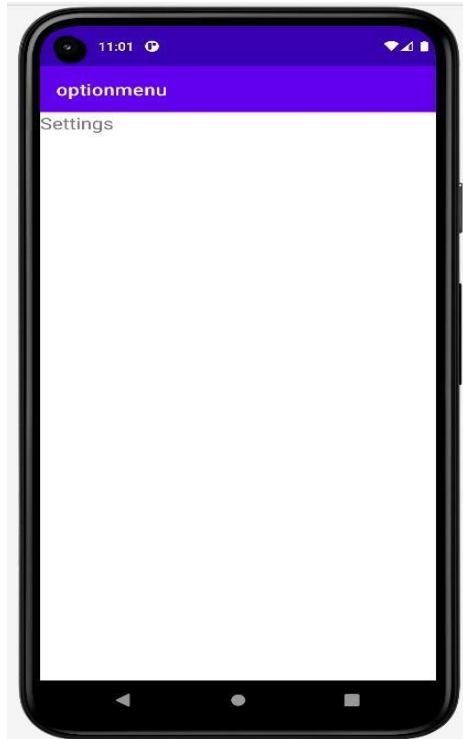
```java
import androidx.annotation.NonNull;

import androidx.fragment.app.Fragment;

import androidx.navigation.fragment.NavHostFragment;

import com.fb.optionmenu.databinding.FragmentSecondBinding;

public class SecondFragment extends Fragment {

  private FragmentSecondBinding binding;

  @Override

  public View onCreateView(

      LayoutInflater inflater, ViewGroup container,

      Bundle savedInstanceState

  ) {

    binding = FragmentSecondBinding.inflate(inflater, container, false);

    return binding.getRoot();

  }

  public void onViewCreated(@NonNull View view, Bundle savedInstanceState) {

    super.onViewCreated(view, savedInstanceState);

    binding.buttonSecond.setOnClickListener(new View.OnClickListener() {

      @Override

      public void onClick(View view) {

        NavHostFragment.findNavController(SecondFragment.this)

            .navigate(R.id.action_SecondFragment_to_FirstFragment);

      }

    });

  }

  @Override

  public void onDestroyView() {

    super.onDestroyView();

    binding = null;

  }}
```

Output Screenshot

Result

The program was executed and the result was successfully obtained. Thus CO3 was obtained.