Experiment 3.3

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Aim:

Design the Android application using menus and action bar.

Requirements:

- Microsoft Windows 7/8/10 (32-bit or 64-bit)
- 4 GB RAM minimum, 8 GB RAM recommended (plus 1 GB for the Android Emulator)
- 2 GB of available disk space minimum, 4 GB recommended (500 MB for IDE plus 1.5 GB for Android SDK and emulator system image)
- 1280 x 800 minimum screen resolution
- Java JDK5 or later version
- Java Runtime Environment (JRE) 6 or higher.

Code:

MainActivity.java

```
import  androidx.annotation.NonNull;
import androidx.appcompat.app.ActionBarDrawerToggle;
importandroidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.Toolbar;
import  androidx.core.view.GravityCompat;
import androidx.drawerlayout.widget.DrawerLayout;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
importandroidx.fragment.app.FragmentTransaction;

import  android.os.Bundle;
import  android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
```

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```java
importandroid.widget.Toast;

import com.google.android.material.navigation.NavigationView;

import in.innovateria.wa9application.Fragments.FirstFragment;
importin.innovateria.wa9application.Fragments.SecondFragment;

public class MainActivity extends AppCompatActivity {
DrawerLayout drawerLayout;
NavigationView navigationView;
Toolbar toolbar;

@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

drawerLayout = findViewById(R.id.drawer);
navigationView = findViewById(R.id.navigationView);
toolbar = findViewById(R.id.toolbar);

setSupportActionBar(toolbar);

ActionBarDrawerToggle toggle = new ActionBarDrawerToggle(this, drawerLayout,
toolbar, R.string.open, R.string.close);
drawerLayout.addDrawerListener(toggle); toggle.syncState();
getSupportFragmentManager().beginTransaction()
.add(R.id.nav_host_fragment, new FirstFragment())
.commit();

navigationView.setNavigationItemSelectedListener(new
NavigationView.OnNavigationItemSelectedLis- tener() {
@Override
public boolean onNavigationItemSelected(@NonNull MenuItem item) { int id =
item.getItemId();
if (id == R.id.home) { loadFragment(new FirstFragment());
} else if (id == R.id.account) { loadFragment(new SecondFragment());
}
drawerLayout.closeDrawer(GravityCompat.START);

return true;
```

```java
    }
  });
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
  new MenuInflater(this).inflate(R.menu.option_menu,menu); return
  super.onCreateOptionsMenu(menu);
}

@Override
public boolean onOptionsItemSelected(@NonNull MenuItem item) { int itemId =
item.getItemId();
if(itemId==R.id.notification){
Toast.makeText(this, "Notification is Selected", Toast.LENGTH_SHORT).show();
}else if(itemId==R.id.close){
Toast.makeText(this, "Close is Selected", Toast.LENGTH_SHORT).show();
}else if(itemId==R.id.save){
Toast.makeText(this, "Save is Selected", Toast.LENGTH_SHORT).show();
}
return super.onOptionsItemSelected(item);
}

private void loadFragment(Fragment fragment) { FragmentManager fm =
getSupportFragmentManager(); FragmentTransaction ft = fm.beginTransaction();
ft.add(R.id.nav_host_fragment, fragment);
ft.commit();
}
}
```

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.drawerlayout.widget.DrawerLayout
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"
```

```xml
    android:layout_height="match_parent"
    tools:context=".MainActivity"
    android:fitsSystemWindows="true"
    tools:openDrawer="start"
    android:id="@+id/drawer">

    <include layout="@layout/toolbar"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>

    <com.google.android.material.navigation.NavigationView
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_gravity="start"
        android:fitsSystemWindows="true"
        android:id="@+id/navigationView"
        app:headerLayout="@layout/header"
        app:menu="@menu/drawer_menu"/>

</androidx.drawerlayout.widget.DrawerLayout>
```
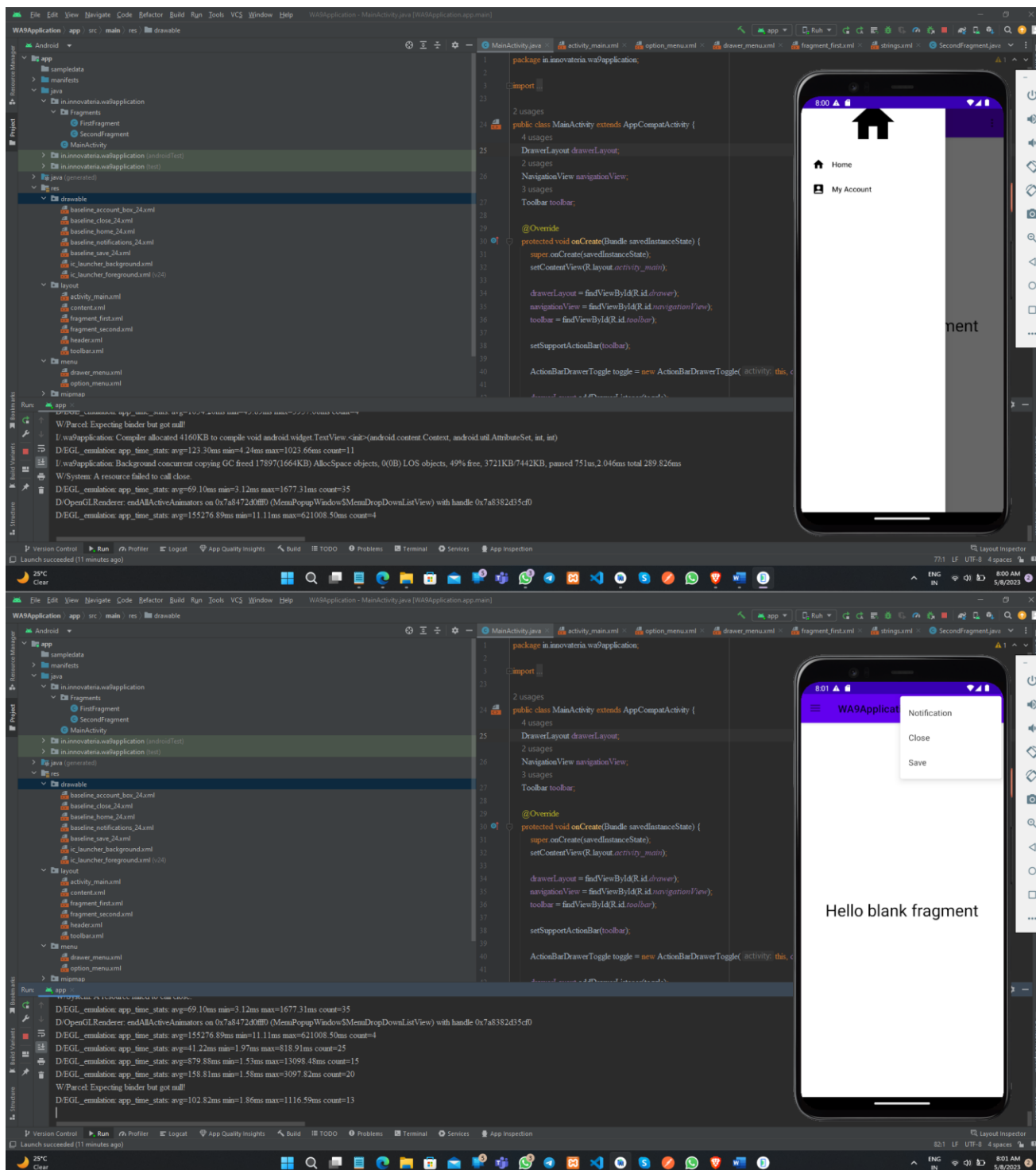
drawer_menu.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto">
<item
android:id="@+id/home"
android:icon="@drawable/baseline_home_24"
android:title="Home" />
<item
android:id="@+id/account"
android:icon="@drawable/baseline_account_box_24"
android:title="My Account" />
</menu>
```

option_menu.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto">
<item
android:id="@+id/notification"
android:icon="@drawable/baseline_notifications_24"
android:title="Notification" app:showAsAction="ifRoom"/>
<item
android:id="@+id/close"
android:icon="@drawable/baseline_close_24"
android:title="Close" app:showAsAction="collapseActionView"/>
<item
android:id="@+id/save"
android:icon="@drawable/baseline_save_24"
android:title="Save" app:showAsAction="collapseActionView"/>
</menu>
```