

112-1 Android App 期中報告

圖文部APP

科系年班：資管三乙

組別：第11組

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一、App 設計需求

1. 登入介面

使用者可在此頁面進行登入、註冊、離開程式。

2. 側拉選單

包含了書類頁面、文具頁面、會員專區頁面，使用者可透過點選側拉選單的方式進入各個頁面。

3. 選單列

位於頁面的最上方，包含了查詢、傳送訊息、設定功能，使用者可透過點選 icon 使用該功能。

4. 浮動按鈕

點選此浮動按鈕可顯示目前位於哪個位置，使用者可透過此功能來知道自己處在哪個位置。

5. 書類頁面

頁面上方會顯示促銷活動資訊，使用者可一目了然目前的最新資訊，而下方則顯示書類商品，另外還設有以下拉式選單，可選取要依照價格高低、名稱、上架時間、人氣程度進行排序。

6. 文具頁面

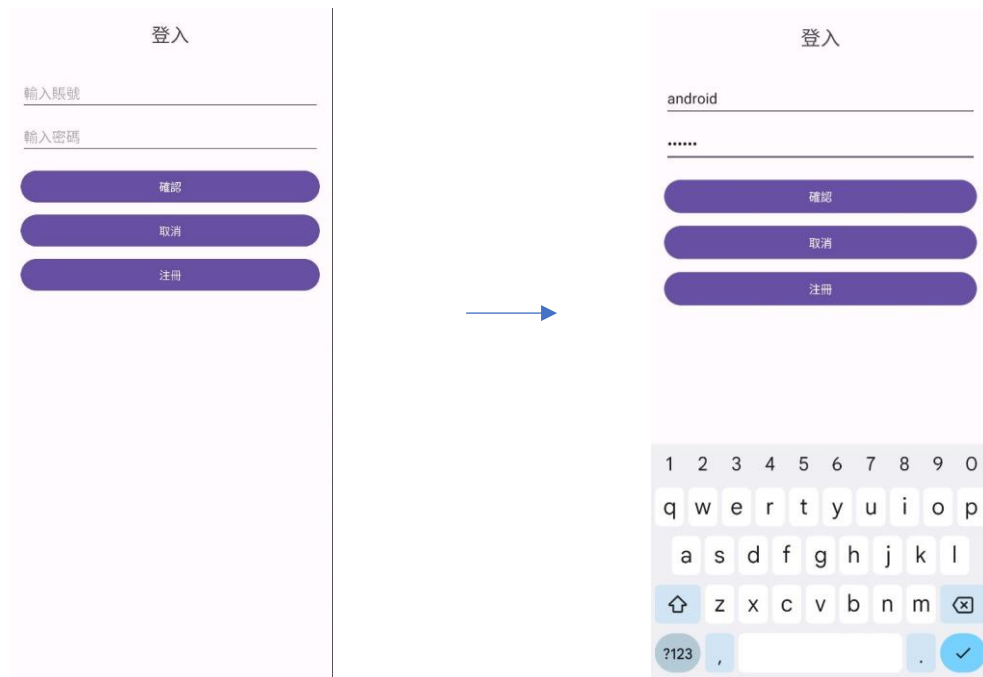
此頁面中顯示文具類的商品資訊，讓使用者可預先知道圖文部有賣那些商品。

7. 會員專區頁面

頁面上方設有個人資訊，中間上方有顯示目前使用者的餘額，當使用者進行完存款、付款時餘額將會自動更新；中間下方設有存款和付款功能，使用者可透過點選圖片 icon 進行此功能；最下方有登出按鈕，使用者可透過點選此按鈕回到登入頁面。

二、 功能示意圖

1. 登入



輸入完帳號密碼後按下確認



將會跳入首頁

2. 建立個人資料

登入

輸入賬號

輸入密碼

確認

取消

注册

點選註冊後



登入

輸入賬號

輸入密碼

確認

取消

注册

輸入賬號

輸入密碼

取消 確認

就可以註冊帳號密碼

3. 上網查詢



點選搜尋 icon

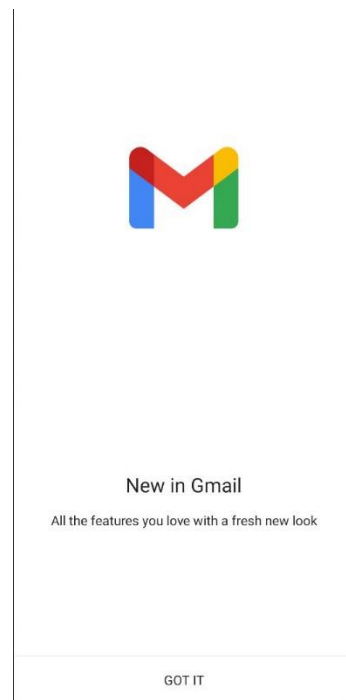


進入搜尋頁面

4. 傳送訊息



點選信件 icon



進入 Gmail 頁面

5. 顯示地理位置



點選右下角 icon



進入 GoogleMap

6. 促銷活動資訊



點選側拉選單進入書本頁面



活動資訊位於最上方

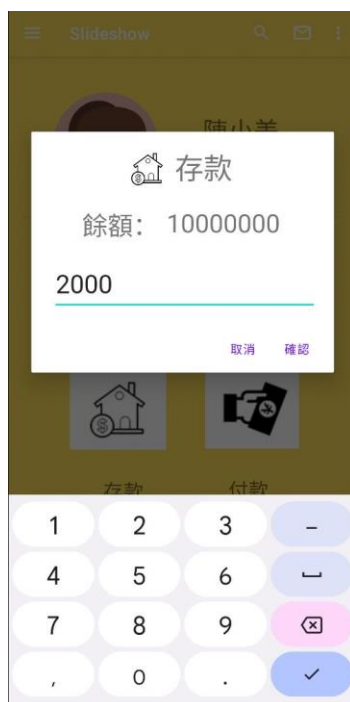
7. 儲值功能



點選存款 icon



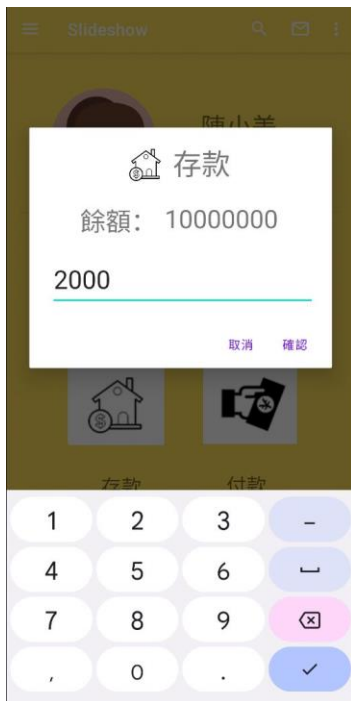
跳出 Dialogs



輸入金額



按下確認後跳出 Toast



按下取消後



也會跳出 Toast

8. 付款功能



點選付款 icon



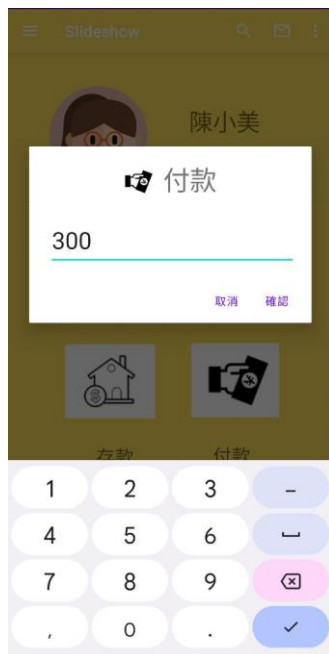
跳出 Dialogs



輸入金額



按下確認後跳出 Toast



按下取消後



也會跳出 Toast

三、功能與相對應的程式片段

1. 登入/註冊個人資料

```
4 usages
private EditText editTextUsername, editTextPassword;
1 usage
private static final String DEFAULT_USERNAME = "android";
1 usage
private static final String DEFAULT_PASSWORD = "123456";

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

    editTextUsername = findViewById(R.id.editTextUsername);
    editTextPassword = findViewById(R.id.editTextPassword);
}

1 usage
public void onLoginButtonClick(View view) {
    String enteredUsername = editTextUsername.getText().toString();
    String enteredPassword = editTextPassword.getText().toString();

    if (isValidCredentials(enteredUsername, enteredPassword)) {
        Intent intent = new Intent( packageContext: this, LoginActivity.class);
        startActivity(intent);
    } else {
        showAlertAndClear( title: "錯誤", message: "賬號或密碼錯誤");
    }
}

1 usage
private void showAlertAndClear(String title, String message) {
    AlertDialog.Builder builder = new AlertDialog.Builder( context: this);
    builder.setTitle(title);
    builder.setMessage(message);
    builder.setPositiveButton( text: "確定", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
            editTextUsername.setText("");
            editTextPassword.setText("");
        }
    });
    AlertDialog dialog = builder.create();
    dialog.show();
}

1 usage
public void onCancelButtonClick(View view) {
    editTextUsername.setText("");
    editTextPassword.setText("");
}
```

```

    public void onRegisterButtonClick(View view) {
        AlertDialog.Builder builder = new AlertDialog.Builder(context: this);
        builder.setTitle("注册");

        LinearLayout layout = new LinearLayout(context: this);
        layout.setOrientation(LinearLayout.VERTICAL);

        final EditText inputUsername = new EditText(context: this);
        final EditText inputPassword = new EditText(context: this);
        inputUsername.setHint("輸入賬號");
        inputPassword.setHint("輸入密碼");

        layout.addView(inputUsername);
        layout.addView(inputPassword);

        builder.setView(layout);

        builder.setPositiveButton(text: "確認", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int which) {

                String newUsername = inputUsername.getText().toString();
                String newPassword = inputPassword.getText().toString();
                |
            }
        });

        builder.setNegativeButton(text: "取消", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int which) { dialog.cancel(); }
        });

        AlertDialog dialog = builder.create();
        dialog.show();
    }

    1 usage
    private boolean isValidCredentials(String username, String password) {

        return username.equals(DEFAULT_USERNAME) && password.equals(DEFAULT_PASSWORD);
    }

    no usages
    private void showAlert(String title, String message) {
        AlertDialog.Builder builder = new AlertDialog.Builder(context: this);
        builder.setTitle(title);
        builder.setMessage(message);
        builder.setPositiveButton(text: "確定", listener: null);
        AlertDialog dialog = builder.create();
        dialog.show();
    }
}

```

2. 上網查詢

```
@Override
public boolean onOptionsItemSelected(MenuItem item) {
    int id = item.getItemId();

    // 使用 if 语句处理菜单项点击事件
    if (id == R.id.action_search) {
        Uri webpage = Uri.parse( uriString: "https://www.android.com");
        Intent webIntent = new Intent(Intent.ACTION_VIEW, webpage);
        startActivity(webIntent);
        Toast.makeText( context: this, text: "Search!!!", Toast.LENGTH_LONG).show();
        return true;
    }
}
```

3. 傳送訊息

```
} else if (id == R.id.action_mail) {
    // 处理发送邮件的逻辑
    Intent emailIntent = new Intent(Intent.ACTION_SEND);
    // The intent does not have a URI, so declare the "text/plain" MIME type
    emailIntent.setType("text/plain");
    emailIntent.putExtra(Intent.EXTRA_EMAIL, new String[]{"jan@example.com"}); // recipients
    emailIntent.putExtra(Intent.EXTRA_SUBJECT, value: "Email subject");
    emailIntent.putExtra(Intent.EXTRA_TEXT, value: "Email message text");
    emailIntent.putExtra(Intent.EXTRA_STREAM, Uri.parse( uriString: "content://path/to/email/attachment"));
    // You can also attach multiple items by passing an ArrayList of Uris
    startActivity(emailIntent);
    Toast.makeText( context: this, text: ">>>Mail", Toast.LENGTH_LONG).show();
    return true;
}
```

4. 顯示地理位置

```
binding.appBarMain.fab.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Snackbar.make(view, text: "FAB", Snackbar.LENGTH_LONG)
            .setAnchorView(R.id.fab)
            .setAction( text: "Action", listener: null).show();

        //MAP point based on address
        Uri location=Uri.parse( uriString: "geo:0,0?q=高雄市楠梓區創新路");
        //Or map point based on latitude/longitude
        //Uri location = Uri.parse("geo:37.422219,-122.083464?z=14");//z param is zoom level
        Intent mapIntent=new Intent(Intent.ACTION_VIEW,location);
        startActivity(mapIntent);}
});
```

5. 促銷活動資訊

```
<ImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:scaleType="centerCrop"
    android:src="@drawable/sale" />
```

6. 儲值功能

```
public class TopUp extends DialogFragment {

    @Override
    public Dialog onCreateDialog(Bundle savedInstanceState) {
        AlertDialog.Builder builder = new AlertDialog.Builder(getActivity());
        // Get the layout inflater
        LayoutInflater inflater = requireActivity().getLayoutInflater();

        // Inflate and set the layout for the dialog
        // Pass null as the parent view because its going in the dialog layout
        builder.setView(inflater.inflate(R.layout.top_up, root: null))
            // Add action buttons
            .setPositiveButton("確認", new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int id) {
                    // sign in the user ...
                    Toast.makeText(getActivity(), text: "成功存入...", Toast.LENGTH_LONG).show();
                }
            })
            .setNegativeButton("取消", new DialogInterface.OnClickListener() {
                public void onClick(DialogInterface dialog, int id) {
                    TopUp.this.getDialog().cancel();
                    Toast.makeText(getActivity(), text: "取消存款...", Toast.LENGTH_LONG).show();
                }
            });
        return builder.create();
    }
}
```

7. 付款功能

```
public class PayMent extends DialogFragment {

    @Override
    public Dialog onCreateDialog(Bundle savedInstanceState) {
        AlertDialog.Builder builder = new AlertDialog.Builder(getActivity());
        // Get the layout inflater
        LayoutInflater inflater = requireActivity().getLayoutInflater();
        // Inflate and set the layout for the dialog
        // Pass null as the parent view because its going in the dialog layout
        builder.setView(inflater.inflate(R.layout.payment, root: null))
            // Add action buttons
            .setPositiveButton("確認", new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int id) {
                    // sign in the user ...
                    Toast.makeText(getActivity(), text: "成功付款...", Toast.LENGTH_LONG).show();
                }
            })
            .setNegativeButton("取消", new DialogInterface.OnClickListener() {
                public void onClick(DialogInterface dialog, int id) {
                    PayMent.this.getDialog().cancel();
                    Toast.makeText(getActivity(), text: "取消付款...", Toast.LENGTH_LONG).show();
                }
            });
        return builder.create();
    }
}
```

四、 參考文獻

1. <https://developer.android.com/guide/topics/ui/dialogs?hl=zh-tw>
2. https://blog.csdn.net/qq_42111674/article/details/118385301

五、 附錄

1. MainActivity.java :

```
package com.example.mynavdrawer;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.view.Menu;
import android.widget.Toast;
import com.google.android.material.snackbar.Snackbar;
import com.google.android.material.navigation.NavigationView;
import androidx.navigation.NavController;
import androidx.navigation.Navigation;
import androidx.navigation.ui.AppBarConfiguration;
import androidx.navigation.ui.NavigationUI;
import androidx.drawerlayout.widget.DrawerLayout;
import androidx.appcompat.app.AppCompatActivity;
import com.example.mynavdrawer.databinding.ActivityMainBinding;

3 usages
public class MainActivity extends AppCompatActivity {
    3 usages
    private AppBarConfiguration mAppBarConfiguration;
    6 usages
    private ActivityMainBinding binding;
```



```

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

    binding = ActivityMainBinding.inflate(getLayoutInflater());
    setContentView(binding.getRoot());

    setSupportActionBar(binding.appBarMain.toolbar);
    binding.appBarMain.fab.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Snackbar.make(view, text: "FAB", Snackbar.LENGTH_LONG)
                .setAnchorView(R.id.fab)
                .setAction(text: "Action", listener: null).show();

            //MAP point based on address
            Uri location=Uri.parse( uriString: "geo:0,0?q=高雄市楠梓區創新路");
            //Or map point based on latitude/longitude
            //Uri location = Uri.parse("geo:37.422219,-122.083464?z=14");//z param is zoom level
            Intent mapIntent=new Intent(Intent.ACTION_VIEW,location);
            startActivity(mapIntent);}
    });

    DrawerLayout drawer = binding.drawerLayout;
    NavigationView navigationView = binding.navView;

    mAppBarConfiguration = new AppBarConfiguration.Builder(
        R.id.nav_login,R.id.nav_home, R.id.nav_gallery, R.id.nav_slideshow)
        .setOpenableLayout(drawer)
        .build();
    NavController navController = Navigation.findNavController( activity: this, R.id.nav_host_fragment_content_main);
    NavigationUI.setupActionBarWithNavController( activity: this, navController, mAppBarConfiguration);
    NavigationUI.setupWithNavController(navigationView, navController);
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    int id = item.getItemId();

    // 使用 if 语句处理菜单项点击事件
    if (id == R.id.action_search) {
        Uri webpage = Uri.parse( uriString: "https://www.android.com");
        Intent webIntent = new Intent(Intent.ACTION_VIEW, webpage);
        startActivity(webIntent);
        Toast.makeText( context: this, text: "Search!!!", Toast.LENGTH_LONG).show();
        return true;
    }
}

```

```

    } else if (id == R.id.action_mail) {
        // 处理发送邮件的逻辑
        Intent emailIntent = new Intent(Intent.ACTION_SEND);
        // The intent does not have a URI, so declare the "text/plain" MIME type
        emailIntent.setType("text/plain");
        emailIntent.putExtra(Intent.EXTRA_EMAIL, new String[]{"jan@example.com"}); // recipients
        emailIntent.putExtra(Intent.EXTRA_SUBJECT, value: "Email subject");
        emailIntent.putExtra(Intent.EXTRA_TEXT, value: "Email message text");
        emailIntent.putExtra(Intent.EXTRA_STREAM, Uri.parse( uriString: "content://path/to/email/attachment"));
        // You can also attach multiple items by passing an ArrayList of Uris
        startActivity(emailIntent);
        Toast.makeText( context: this, text: ">>>Mail", Toast.LENGTH_LONG).show();
        return true;
    }

    // 其他 if 语句处理其他菜单项点击事件...

    return super.onOptionsItemSelected(item);
}

```

5 usages

```

@Override
public boolean onSupportNavigateUp() {
    NavController navController = Navigation.findNavController( activity: this, R.id.nav_host_fragment_content_main);
    return NavigationUI.navigateUp(navController, mAppBarConfiguration)
        || super.onSupportNavigateUp();
}

```

2. PrersonalPage.java :

```

package com.example.mynavdrawer.ui.PersonalPage;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.fragment.app.DialogFragment;
import androidx.fragment.app.Fragment;
import androidx.navigation.fragment.NavHostFragment;
import com.example.mynavdrawer.R;
import com.example.mynavdrawer.databinding.PersonPageBinding;
import com.example.mynavdrawer.ui.PayMent.PayMent;
import com.example.mynavdrawer.ui.TopUp.TopUp;

4 usages
public class PersonalPage extends Fragment {

    6 usages
    private PersonPageBinding binding;

    @Override
    public View onCreateView(
        LayoutInflater inflater, ViewGroup container,
        Bundle savedInstanceState

    ) {

        binding = PersonPageBinding.inflate(inflater, container, attachToParent: false);
    }
}

```



```

        return binding.getRoot();
    }

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

        binding.buttonSignout.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                NavHostFragment.findNavController(PersonalPage.this)
                    .navigate(R.id.action_PersonalPage_to_Login);
                Toast.makeText(getActivity(), text: "已登出...", Toast.LENGTH_LONG).show();
            }
        });

        binding.Topup.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) { TopUp(); }
        });

        binding.Payment.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) { PayMent(); }
        });
    }
}

```

```

1 usage
} public void TopUp() {
    DialogFragment newFragment = new TopUp();
    newFragment.show(getParentFragmentManager(), tag: "Topup");
}

1 usage
} public void PayMent() {
    DialogFragment newFragment = new PayMent();
    newFragment.show(getParentFragmentManager(), tag: "Payment");
}

@Override
} public void onDestroyView() {
    super.onDestroyView();
    binding = null;
}
}

```

3. PayMent.java :

```

package com.example.mynavdrawer.ui.PayMent;

import ...
5 usages
public class PayMent extends DialogFragment {
    @Override
    public Dialog onCreateDialog(Bundle savedInstanceState) {
        AlertDialog.Builder builder = new AlertDialog.Builder(getActivity());
        // Get the layout inflater
        LayoutInflater inflater = requireActivity().getLayoutInflater();
        // Inflate and set the layout for the dialog
        // Pass null as the parent view because its going in the dialog layout
        builder.setView(inflater.inflate(R.layout.payment, root: null))
        // Add action buttons
        .setPositiveButton("確認", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int id) {
                // sign in the user ...
                Toast.makeText(getActivity(), text: "成功付款...", Toast.LENGTH_LONG).show();
            }
        })
        .setNegativeButton("取消", new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int id) {
                PayMent.this.getDialog().cancel();
                Toast.makeText(getActivity(), text: "取消付款...", Toast.LENGTH_LONG).show();
            }
        });
        return builder.create();
    }
}

```

4. TopUp.java :

```

package com.example.mynavdrawer.ui.TopUp;

import ...
5 usages
public class TopUp extends DialogFragment {
    @Override
    public Dialog onCreateDialog(Bundle savedInstanceState) {
        AlertDialog.Builder builder = new AlertDialog.Builder(getActivity());
        // Get the layout inflater
        LayoutInflater inflater = requireActivity().getLayoutInflater();
        // Inflate and set the layout for the dialog
        // Pass null as the parent view because its going in the dialog layout
        builder.setView(inflater.inflate(R.layout.top_up, root: null))
        // Add action buttons
        .setPositiveButton("確認", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int id) {
                // sign in the user ...
                Toast.makeText(getActivity(), text: "成功存入...", Toast.LENGTH_LONG).show();
            }
        })
        .setNegativeButton("取消", new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int id) {
                TopUp.this.getDialog().cancel();
                Toast.makeText(getActivity(), text: "取消存款...", Toast.LENGTH_LONG).show();
            }
        });
        return builder.create();
    }
}

```

5. Activity_main.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:id="@+id/drawer_layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:openDrawer="start">

    <include
        android:id="@+id/app_bar_main"
        layout="@layout/app_bar_main"
        android:layout_width="match_parent"
        android:layout_height="match_parent" />

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

```

6. App_bar.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.MyNavDrawer.AppBarOverlay">

        <androidx.appcompat.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:background="#FFDE59"
            app:popupTheme="@style/Theme.MyNavDrawer.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="16dp"
        android:layout_marginBottom="16dp"
        app:srcCompat="@drawable/map_24px" />

</androidx.coordinatorlayout.widget.CoordinatorLayout>

```

7. Content_main.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"
    app:layout_behavior="com.google.android.material.appbar.AppBarLayout$Scrolli..."
    tools:showIn="@layout/app_bar_main">

    <fragment
        android:id="@+id/nav_host_fragment_content_main"
        android:name="androidx.navigation.fragment.NavHostFragment"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:defaultNavHost="true"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:navGraph="@navigation/mobile_navigation" />
</androidx.constraintlayout.widget.ConstraintLayout>
```