

Ćwiczenia 20 — Android studio – MediaPlayer Recorder, Bottom Navigation

Na koniec zajęć prześlij pliki źródłowe (.xml, .java)+ obrazek do zasobu w teams.

1. Utwórz projekt o nazwie MyPlayAudioVideo na podstawie Empty Activity, dobierz odpowiednie API (28 – Android 9).

2. Otwórz dokumentację:

<https://developer.android.com/guide/topics/media/mediaplayer>

<https://developer.android.com/reference/com/google/android/material/bottomnavigation/BottomNavigationView>

<https://material.io/components/bottom-navigation/android#using-bottom-navigation>

<https://developer.android.com/guide/navigation/navigation-getting-started>

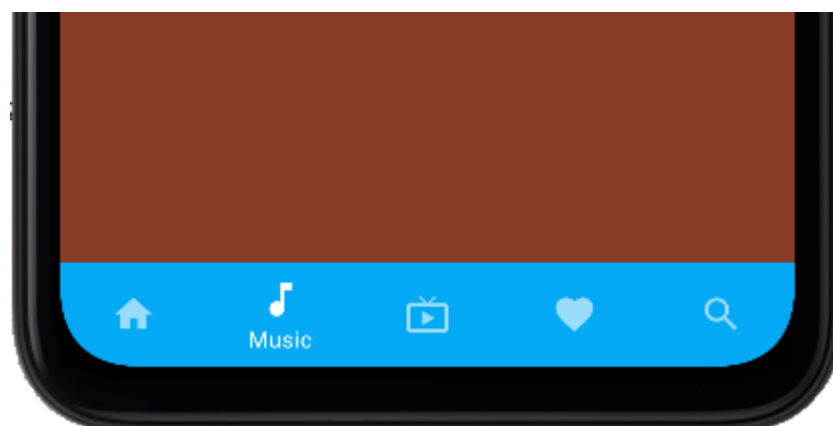
<https://developer.android.com/guide/topics/media/mediarecorder>

<https://developer.android.com/guide/topics/appwidgets>

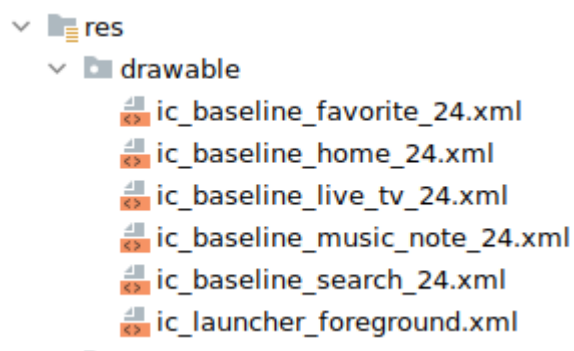
3. Dodaj potrzebne zależności, np.:

```
dependencies {  
    def nav_version = "2.4.1"  
  
    // Java language implementation  
    implementation "androidx.navigation:navigation-fragment:$nav_version"  
    implementation "androidx.navigation:navigation-ui:$nav_version"  
  
    // Kotlin  
    implementation "androidx.navigation:navigation-fragment-ktx:$nav_version"  
    implementation "androidx.navigation:navigation-ui-ktx:$nav_version"  
  
    // Feature module Support  
    implementation "androidx.navigation:navigation-dynamic-features-fragment:$nav_version"  
  
    // Testing Navigation  
    androidTestImplementation "androidx.navigation:navigation-testing:$nav_version"  
  
    // Jetpack Compose Integration  
    implementation "androidx.navigation:navigation-compose:$nav_version"  
  
    implementation 'androidx.appcompat:appcompat:1.4.1'  
    implementation 'com.google.android.material:material:1.5.0'  
    implementation 'androidx.constraintlayout:constraintlayout:2.1.3'  
    implementation 'androidx.navigation:navigation-fragment:2.4.1'  
    implementation 'androidx.navigation:navigation-ui:2.4.1'  
  
    testImplementation 'junit:junit:4.13.2'  
    androidTestImplementation 'androidx.test.ext:junit:1.1.3'  
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'  
}
```

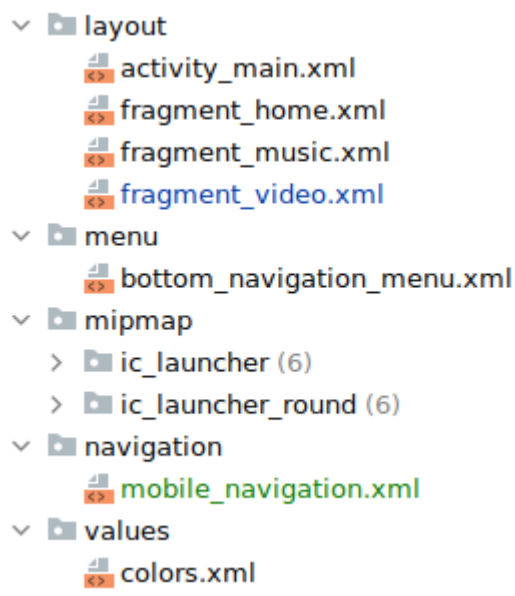
4. Zbuduj nawigację dolną dla 5 fragmentów:



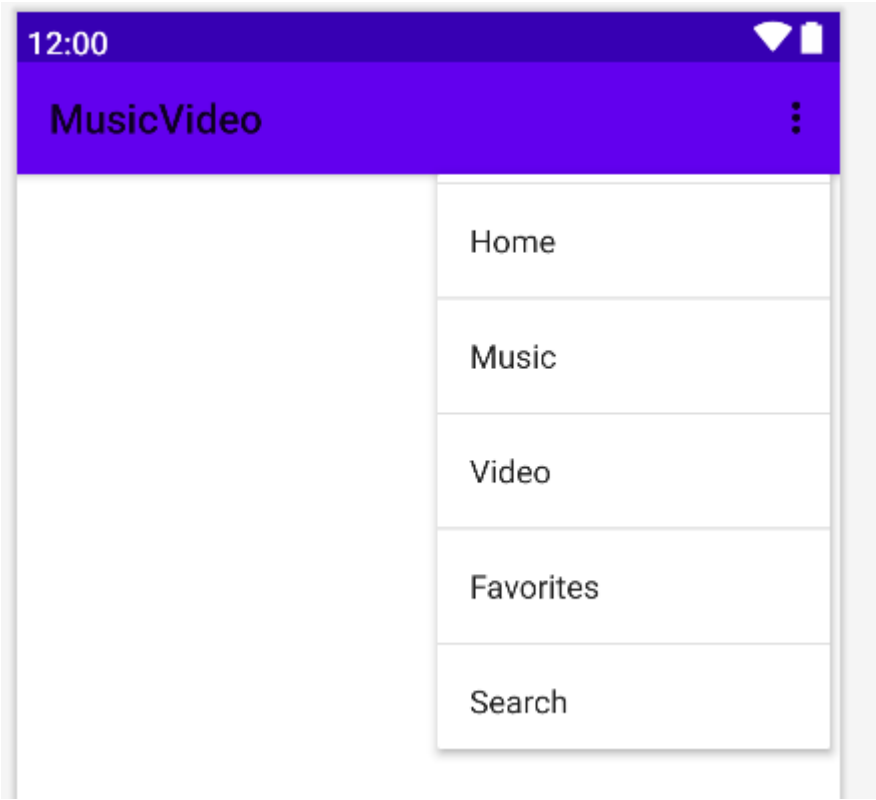
5. Przygotuj ikony:



6. Utwórz menu:



7. Zawartość menu:



```
1 <?xml version="1.0" encoding="utf-8"?>
2 <menu xmlns:android="http://schemas.android.com/apk/res/android">
3     <item
4         android:id="@+id/nav_home"
5         android:enabled="true"
6         android:title="Home"
7         android:icon="@drawable/ic_baseline_home_24"
8     />
9     <item
10        android:id="@+id/nav_music"
11        android:enabled="true"
12        android:title="Music"
13        android:icon="@drawable/ic_baseline_music_note_24"
14    />
15    <item
16        android:id="@+id/nav_video"
17        android:enabled="true"
18        android:title="Video"
19        android:icon="@drawable/ic_baseline_live_tv_24"
20    />
21    <item
22        android:id="@+id/nav_favorites"
23        android:enabled="true"
24        android:title="Favorites"
25        android:icon="@drawable/ic_baseline_favorite_24"
26    />
27    <item
28        android:id="@+id/nav_search"
29        android:enabled="true"
30        android:title="Search"
31        android:icon="@drawable/ic_baseline_search_24"
32    />
33 </menu>
```

8. W activity_main.xml:

```
25 <com.google.android.material.bottomnavigation.BottomNavigationView
26
27     android:id="@+id/bottom_navigation_view"
28     style="@style/Widget.MaterialComponents.BottomNavigationView.Colored"
29     android:layout_width="match_parent"
30     android:layout_height="wrap_content"
31     android:layout_alignParentBottom="true"
32     android:layout_gravity="start"
33     android:fitsSystemWindows="true"
34     android:background="@color/blue"
35     app:menu="@menu/bottom_navigation_menu" />
36
37 </RelativeLayout>
```

9. Dodaj home fragment:

```
HomeFragment.java x fragment_video.xml x VideoFragment.java x mobile_navigation.xml x build.gradle (:app) x
1 package com.example.bottomnavigation;
2
3 import ...
4
11
12 public class HomeFragment extends Fragment {
13
14     @Nullable
15     @Override
16     public View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {
17         return inflater.inflate(R.layout.fragment_home, container, attachToRoot: false);
18     }
19 }
```

10. Dodaj layout dla home fragment:



11. W onCreate() dodaj główny fragment HOME:

```
getSupportFragmentManager() fragmentManager
    .beginTransaction() fragmentTransaction
    .setReorderingAllowed(true)
    .replace(R.id.fragment_container, new HomeFragment()).commit();
```

12. Dodaj obsługę dolnego menu:

```
@Override
public boolean onNavigationItemSelected(@NonNull MenuItem item) {
    switch (item.getItemId()) {
        case R.id.nav_home:
            getSupportFragmentManager().beginTransaction()
                .setReorderingAllowed(true)
                .replace(R.id.fragment_container, new HomeFragment())
                .commit();
            break;
        case R.id.nav_music:
            getSupportFragmentManager().beginTransaction()
                .setReorderingAllowed(true)
                .replace(R.id.fragment_container, new MusicFragment())
                .commit();
            break;
        case R.id.nav_video:
            getSupportFragmentManager().beginTransaction()
                .setReorderingAllowed(true)
                .replace(R.id.fragment_container, new VideoFragment())
                .commit();
            break;
    }
    return true;
}
```

13. Dodaj odtwarzanie pliku audio.
14. Dodaj odtwarzanie pliku video.
15. Dodaj CalendarView w pozycję szukaj (dodaj pozycję, zmodyfikuj zakres kalendarza, ect.)
16. Dodatkowe zadania
 - a) dodaj widżet:

<https://developer.android.com/guide/topics/appwidgets>

b) zbuduj aplikację w oparciu o <https://developer.android.com/guide/navigation>

c) zapewnij obsługę trybu dark mode na urządzeniu

<https://developer.android.com/guide/topics/ui/look-and-feel/darktheme>

[https://developer.android.com/reference/androidx/appcompat/app/AppCompatActivity#setDefaultNightMo](https://developer.android.com/reference/androidx/appcompat/app/AppCompatActivity#setDefaultNightMode(int))

[de\(int\)](#)

d) przygotuj ikonę dla aplikacji

<https://developer.android.com/studio/write/image-asset-studio>

e) dodaj skróty 2 typu: podpięte dla odtwórz audio i odtwórz video

<https://developer.android.com/guide/topics/ui/shortcuts>

<https://developer.android.com/guide/topics/ui/shortcuts/creating-shortcuts#pinned>

f) przetestuj aplikację:

<https://developer.android.com/studio/test/test-in-android-studio>

g) opublikuj aplikację :)

<https://developer.android.com/studio/publish>

17. KONIEC.