

ViewBinding

```
buildFeatures {  
    viewBinding true  
}
```

```
private lateinit var binding: ActivityMainBinding  
binding = ActivityMainBinding.inflate(layoutInflater)  
setContentView(binding.root)
```

Poznamky

- Activity (UI + logic), Views (komponenty), Intents (event + data), Fragments (reusable UI, komunikace pres Intents / rodice)
- Sprava kamery a opraveni pres `Intent` -> `MediaStore` -> `resolveActivity`
 - Vyzkouset CameraX a porovnat s predeslou implementaci
- Kotlin
- Layout - XML kompozici, todo: vyzkouset Compose
- Permissions
- Googli API

Google API & ML Kit from Firebase

```
Stahnuti google-services.json a vlozeni do app scopu  
build.gradle app level - added implementations
```

<https://console.firebase.google.com/project/bp-slechta/overview>

Generovani Firebase Gradle dependencies:



Register app

Android package name: cz.zcu.students.slechta, App nickname: BP



Download and then add config file



Add Firebase SDK

[Instructions for Gradle](#) | [Unity](#) [C++](#)

1. To make the `google-services.json` config values accessible to Firebase SDKs, you need the Google services Gradle plugin.

Add the plugin as a buildscript dependency to your project-level `build.gradle` file:

Root-level (project-level) Gradle file (`<project>/build.gradle`):

```
buildscript {
    repositories {
        // Make sure that you have the following two repositories
        google() // Google's Maven repository
        mavenCentral() // Maven Central repository
    }
    dependencies {
        ...
        // Add the dependency for the Google services Gradle plugin
        classpath 'com.google.gms:google-services:4.3.13'
    }
}

allprojects {
    ...
    repositories {
        // Make sure that you have the following two repositories
        google() // Google's Maven repository
        mavenCentral() // Maven Central repository
    }
}
```

2. Then, in your module (app-level) `build.gradle` file, add both the `google-services` plugin and any Firebase SDKs that you want to use in your app:

☐ Java ☒ Kotlin

Module (app-level) Gradle file (<project>/<app-module>/build.gradle):

```
plugins {  
    id 'com.android.application'  
    // Add the Google services Gradle plugin  
    id 'com.google.gms.google-services'  
    ...  
}  
  
dependencies {  
    // Import the Firebase BoM  
    implementation platform('com.google.firebase:firebase-bom:31.1.0')  
  
    // TODO: Add the dependencies for Firebase products you want to use  
    // When using the BoM, don't specify versions in Firebase dependencies  
    implementation 'com.google.firebase:firebase-analytics-ktx'  
  
    // Add the dependencies for any other desired Firebase products  
    // https://firebase.google.com/docs/android/setup#available-libraries  
}
```

By using the Firebase Android BoM, your app will always use compatible Firebase library versions. [Learn more](#)

3. After adding the plugin and the desired SDKs, sync your Android project with Gradle files.

Prace s resources

```
colors, strings, themes, drawable, layout, ...
```

Prace s Manifest souborem - opraveni

```
manifest - pridani CAMERA a NETWORK opraveni
```

SO: setOnClickListener - kotlin syntax

There are six ways to use `setOnClickListener`:

First:

```
button.setOnClickListener {  
    // Do some work here  
}
```

Second:

```
button.setOnClickListener(object : View.OnClickListener {  
    override fun onClick(view: View?) {  
        // Do some work here  
    }  
})
```

Third:

```
button.setOnClickListener(View.OnClickListener { view ->  
    // Do some work here  
})
```

Fourth:

```
class MainActivity : AppCompatActivity(), View.OnClickListener{  
  
    lateinit var button : Button  
  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContentView(R.layout.activity_main)  
        button = findViewById(R.id.button1)  
        button.setOnClickListener(this)  
    }  
  
    override fun onClick(view: View?) {  
        when(view?.id){  
            R.id.button1->{  
                // do some work here  
            }  
        }  
    }  
}
```

Fifth:

```
class MainActivity : AppCompatActivity(){  
  
    lateinit var button : Button  
  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContentView(R.layout.activity_main)  
        button = findViewById(R.id.button1)  
        button.setOnClickListener(listener)  
    }  
}
```

```
}

val listener= View.OnClickListener { view ->
    when (view.getId()) {
        R.id.button1 -> {
            // Do some work here
        }
    }
}

}
```

Sixth

```
button.setOnClickListener { view ->
    // Do some work here
}
```