



# Izrada aplikacija za mobilne uređaje

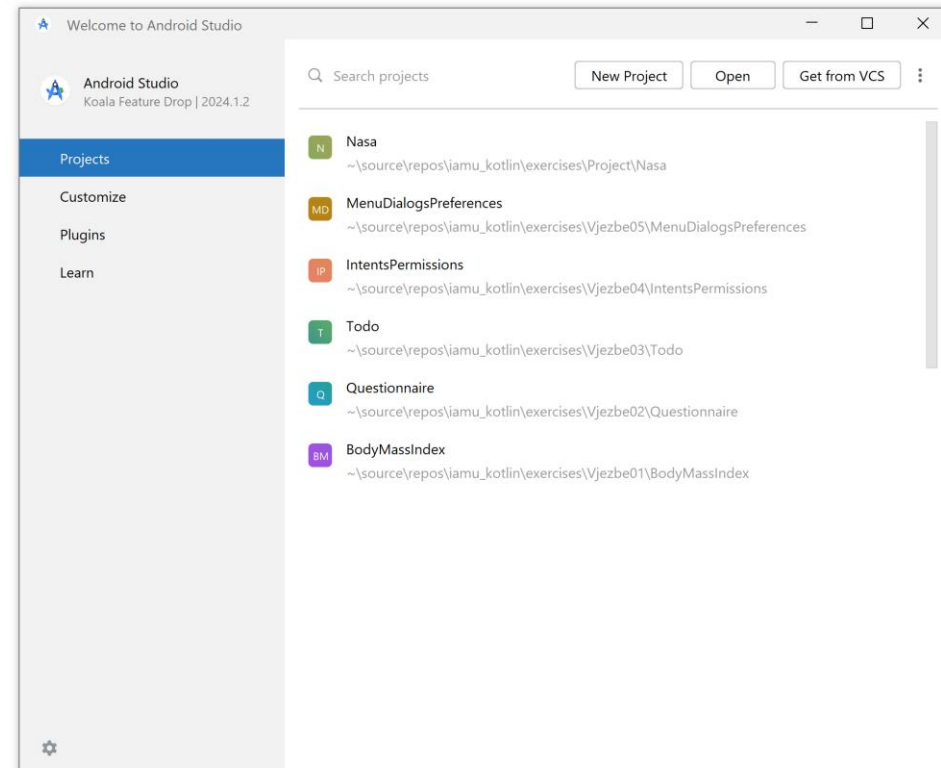
Razvoj aplikacije i resursi

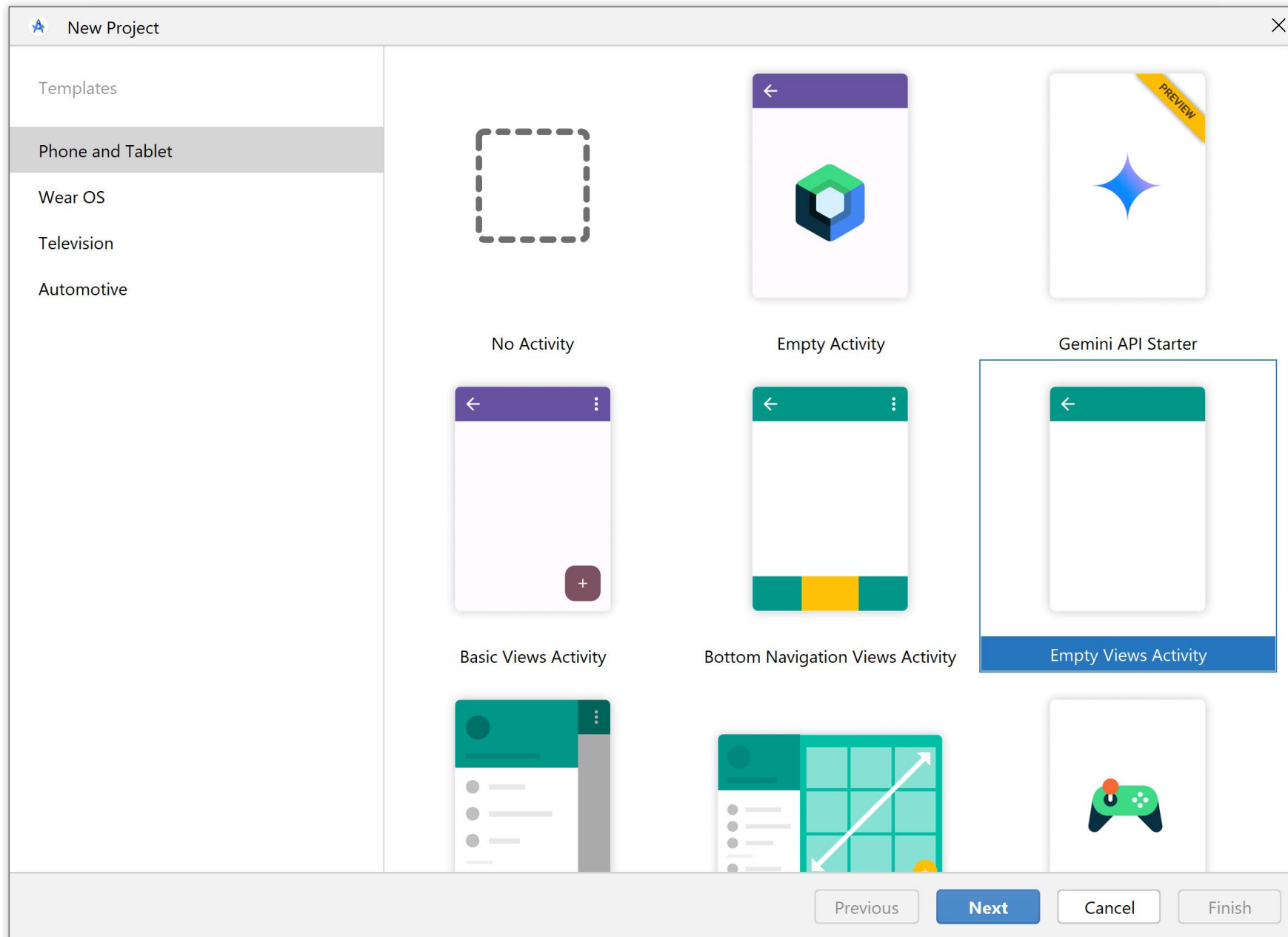
# Teme


- Kreiranje projekta
- Struktura projekta
- Resursi
- Manifest
- Gradle (build.gradle)
- Build
- Install

# Kreiranje projekta

1. Quick Start - Start a new Android Studio Project
2. Otvara se čarobnjak
3. Definiranje tipa aktivnosti
4. Definiranje naziva, paketa, lokacije, jezika, minimalne platforme





 New Project ✕

### Empty Views Activity

Creates a new empty activity


Name

Resources

Package name

hr.algebra.resources

Save location


C:\Users\daniel.bele\source\repos\iamu\_kotlin\lectures\Predavanje02\Resources 


Language

Kotlin ▼

Minimum SDK

API 26 ("Oreo"; Android 8.0) ▼

 Your app will run on approximately **95,4%** of devices.  
[Help me choose](#)

Build configuration language 

Kotlin DSL (build.gradle.kts) [Recommended] ▼

Previous

Next

Cancel

Finish

ANDROID PLATFORM VERSION		API LEVEL	CUMULATIVE DISTRIBUTION
4.4	KitKat	19	
5	Lollipop	21	99,7%
5.1	Lollipop	22	99,6%
6	Marshmallow	23	98,8%
7	Nougat	24	97,4%
7.1	Nougat	25	96,4%
8	Oreo	26	95,4%
8.1	Oreo	27	93,9%
9	Pie	28	89,6%
10	Q	29	81,2%
11	R	30	67,6%
12	S	31	48,6%
13	T	33	33,9%
14	U	34	13,0%

Last updated: May 1, 2024

## Oreo

### System

Custom data store  
JobScheduler improvements  
Cached data

### User Interface

Picture-in-Picture mode  
Improved Notifications  
Autofill framework  
Downloadable fonts  
Multi-display support  
Adaptive icons

### Media

VolumeShaper  
Audio focus enhancements  
Media metrics  
MediaPlayer and MediaRecorder improvements  
Improved media file access

### Wireless & Connectivity

Wi-Fi Aware  
Bluetooth updates  
Companion device pairing

### Security & Privacy

New permissions  
New account access and discovery APIs

### Runtime & Tools

Platform optimizations  
Updated Java language support  
Updated ICU4J Android Framework APIs

<https://developer.android.com/about/versions/oreo/android-8.0>

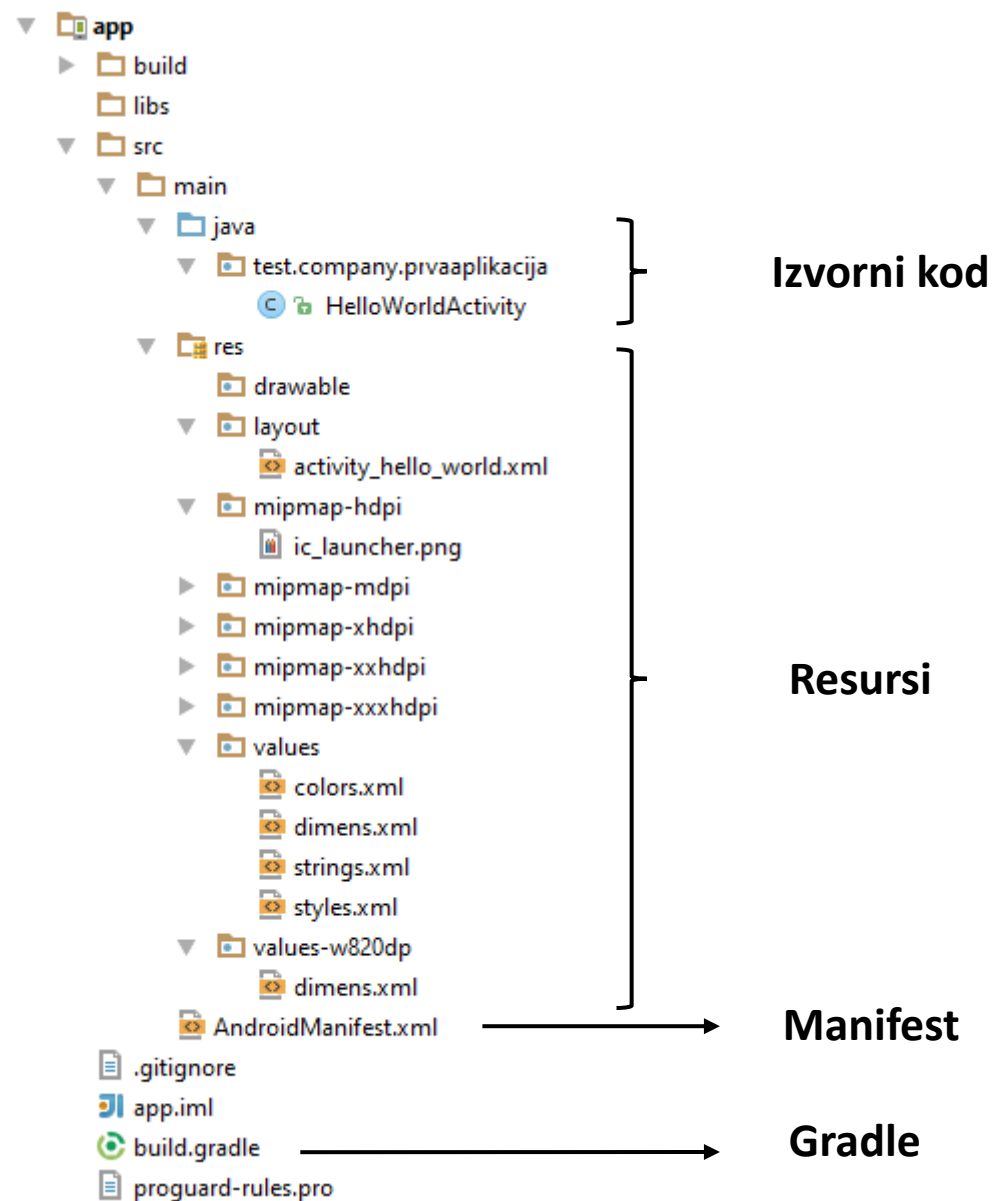
OK

Cancel

# Struktura projekta

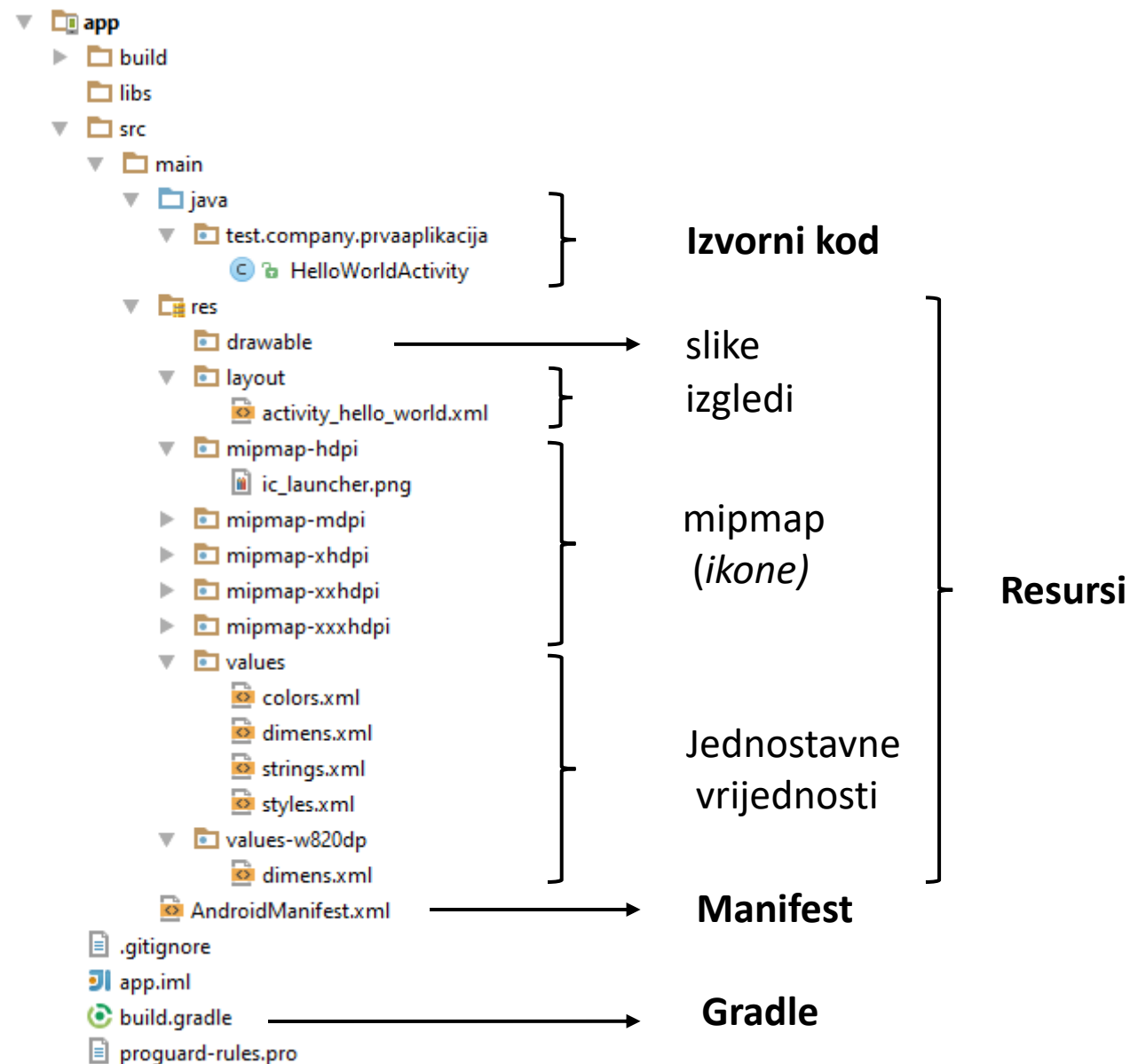
1. Resursi
  - a. Jednostavne vrijednosti
  - b. Izgledi
  - c. Slike
2. Izvorni kod
3. Generirani kod
4. Manifest
5. build.gradle

# Struktura projekta

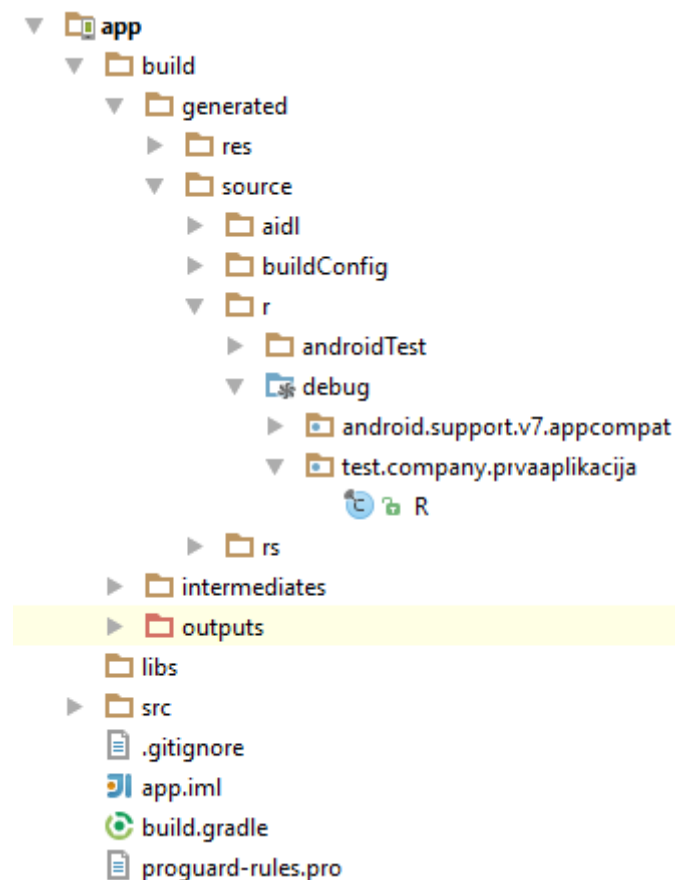




# Struktura projekta



# Struktura projekta



Generirani kod

# Manifest

- XML dokument s metapodacima o aplikaciji
- Definira
  - Verziju aplikacije
  - Komponente (aktivnosti, servisi, pružatelji sadržaja)
    - Naziv
    - Klasa
    - Konfiguracija
  - Razine SDK
  - Dozvole
  - Hardverske zahtjeve

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.helloworld"
    android:versionCode="1"
    android:versionName="1.0" >
    <uses-sdk android:minSdkVersion="8" android:targetSdkVersion="21" />
    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name"
        android:theme="@style/AppTheme" >
        <activity
            android:name=".HelloWorldActivity"
            android:label="@string/app_name" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>

```

Verzija aplikacije

Razina SDK

Ikona  
Naziv aplikacije  
Tema

Klasa

Naslov

# SDK

- Minimum SDK
  - Minimalna razina API-ja **na kojoj se može izvršavati** aplikacija
- Target SDK
  - Ciljana razina API-ja **za koju se** aplikacija **dizajnira**
- Maximum SDK
  - Maksimalna razina API-ja **na kojoj se može izvršavati** aplikacija
- Compile With (Build) SDK
  - Razina API-ja **s kojom se razvija** aplikacija

# Gradle (build.gradle)

- sustav za izgradnju aplikacija
  - *automated build toolkit*
- omogućuje
  - postavljanje zavisnosti (engl. dependencies)
  - brzu konfiguraciju
  - testiranje
  - potpisivanje
  - generiranje više APK-ova



```

plugins {
    alias(libs.plugins.android.application)
    alias(libs.plugins.kotlin.android)
}

android {
    namespace = "hr.algebra.resources"
    compileSdk = 34

    defaultConfig {
        applicationId = "hr.algebra.resources"
        minSdk = 26
        targetSdk = 34
        versionCode = 1
        versionName = "1.0"

        testInstrumentationRunner = "androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            isMinifyEnabled = false
            proguardFiles(
                getDefaultProguardFile("name: "proguard-android-optimize.txt"),
                "proguard-rules.pro"
            )
        }
    }
}

```

```

compileOptions {
    sourceCompatibility = JavaVersion.VERSION_1_8
    targetCompatibility = JavaVersion.VERSION_1_8
}

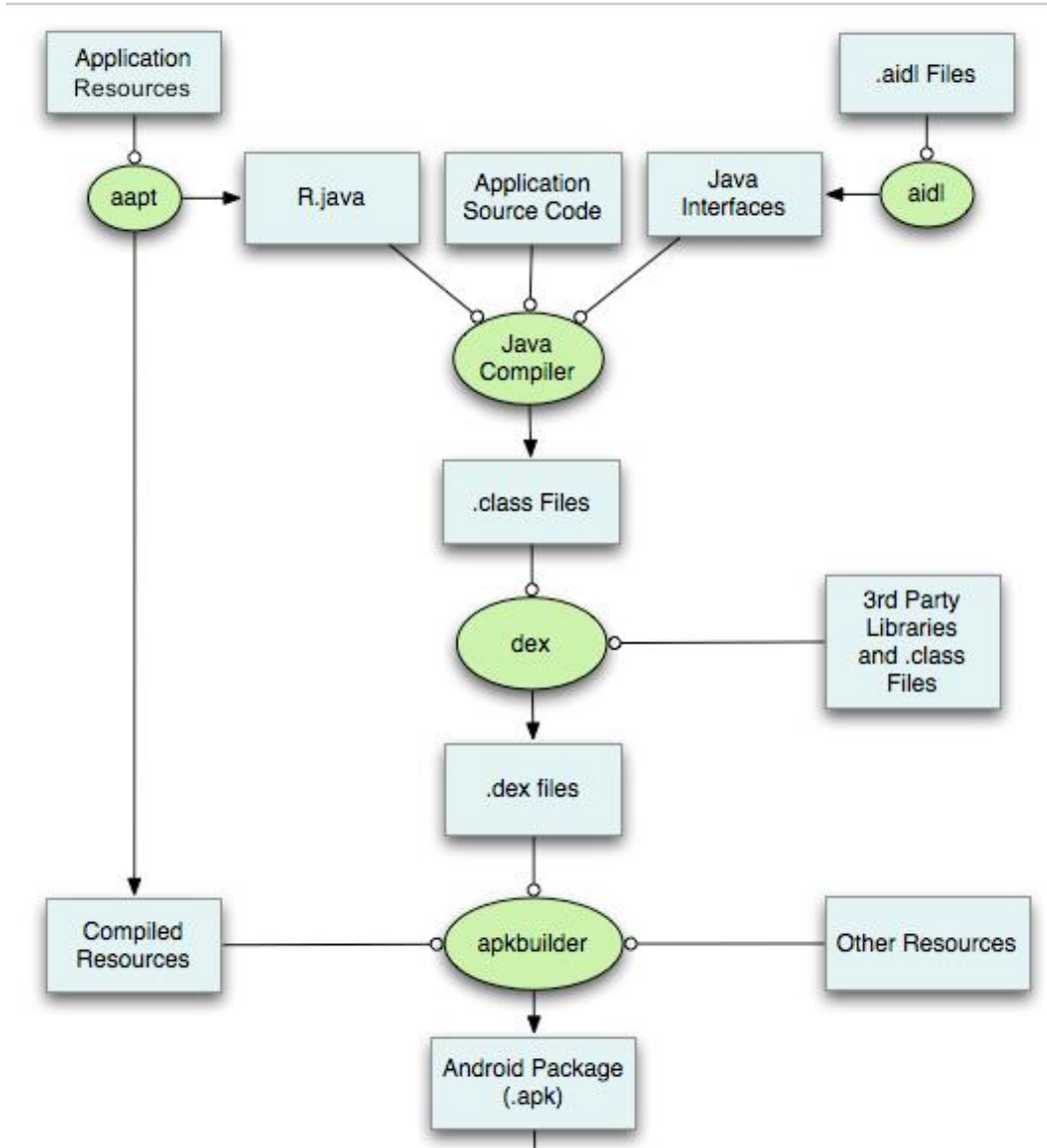
kotlinOptions {
    jvmTarget = "1.8"
}

dependencies {

    implementation(libs.androidx.core.ktx)
    implementation(libs.androidx.appcompat)
    implementation(libs.material)
    implementation(libs.androidx.activity)
    implementation(libs.androidx.constraintlayout)
    testImplementation(libs.junit)
    androidTestImplementation(libs.androidx.junit)
    androidTestImplementation(libs.androidx.espresso.core)
}

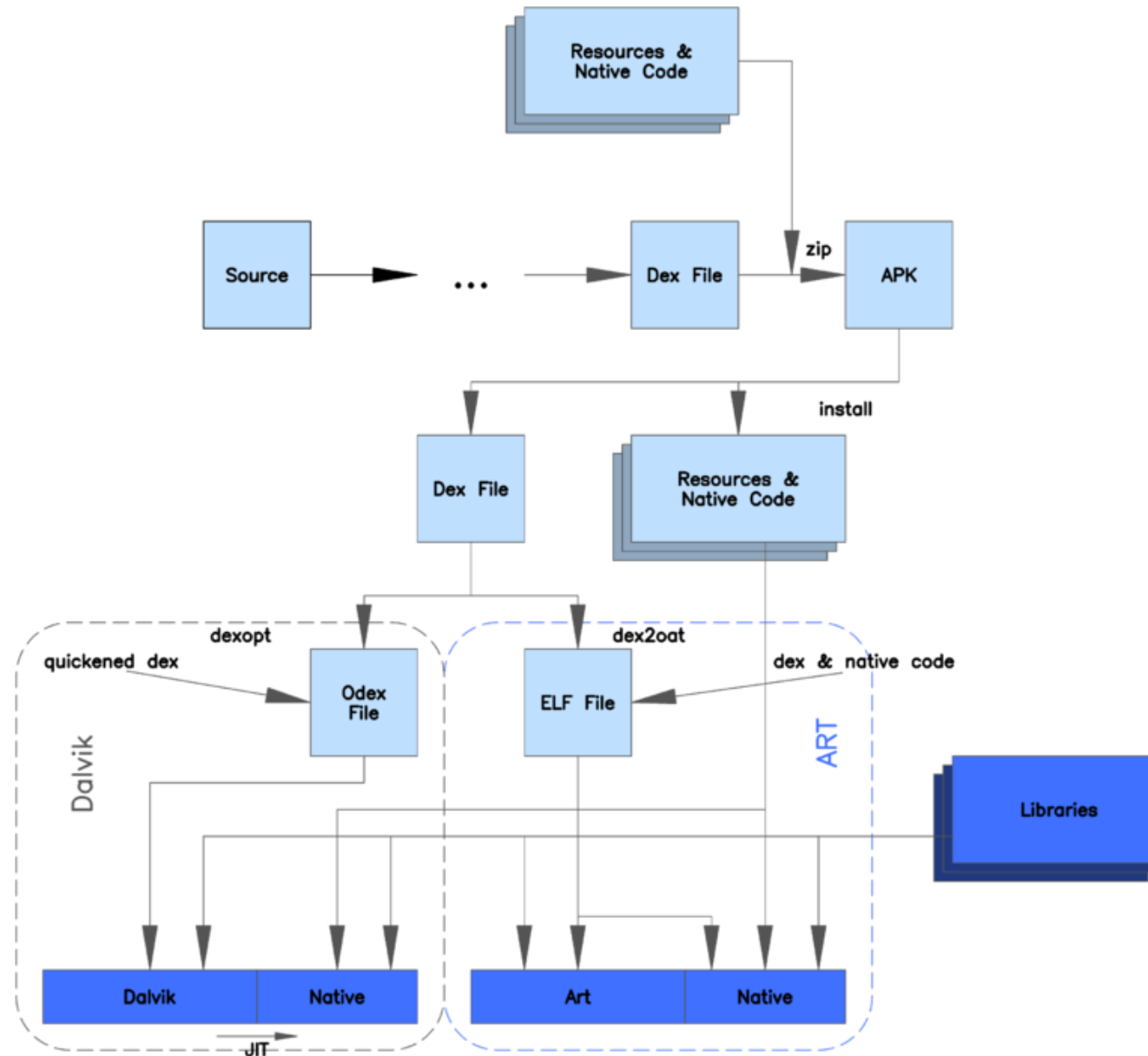
```

# Build





# Install



# Demo

- Resources app



<http://www.jnhsolutions.com/contact-us/request-a-demo/>

**Hvala na pažnji!**

