

Lens Headless Credit Cards

Adding Lens SDK to your project

1. Add the Maven repository details to the `dependencyResolutionManagement.repositories` section of your `settings.gradle` as shown in this minimalistic example:

```
dependencyResolutionManagement {
    repositories {
        google()
        mavenCentral()

        // Maven repository for VeryfiLens
        maven {
            url "https://nexus.veryfi.com/repository/maven-releases/"
            credentials {
                username = 'USERNAME'
                password = 'PASSWORD'
            }
            authentication {
                basic(BasicAuthentication)
            }
        }
    }
}
```

1. Add Veryfi Lens to the dependencies in your

`build.gradle (:app)` file (replace "X.X.X" with the Lens Credit Cards SDK version you're currently using):

```
implementation 'com.veryfi.lens.headless:credit-cards-sdk:X.X.X'
```

Configuring your project to use Lens Headless Credit Cards SDK

1. Ensure your `build.gradle (:app)` file includes at a minimum the following configuration, plus any other required settings

```

plugins {
    id 'kotlin-kapt'
}

android {
    defaultConfig {
        minSdkVersion 21

        ndk {
            // Specifies the ABI configurations of your native app
            abiFilters "armeabi-v7a", "arm64-v8a", "x86", "x86_64"
        }

        javaCompileOptions {
            annotationProcessorOptions {
                arguments += [
                    "room.schemaLocation":"$projectDir/schemas".
toString(),
                    "room.incremental":"true",
                    "room.expandProjection":"true"]
            }
        }

        androidResources {
            noCompress "veryfi"
        }

        buildFeatures {
            viewBinding true
        }

        // Required if minSdkVersion is set to lower than 26
        compileOptions {
            sourceCompatibility JavaVersion.VERSION_1_8
            targetCompatibility JavaVersion.VERSION_1_8
        }
    }
}

```

1. Ensure your

`build.gradle (:app)` file includes at a minimum the following dependencies (replace "X.X.X" with the Lens SDK version you're currently using) as well as the latest **AndroidX** libraries:

```
dependencies {
    implementation 'androidx.appcompat:appcompat:X.X.X'
    implementation 'com.veryfi.lens.headless:credit-cards-sdk:X.X.X.X'
    implementation "org.jetbrains.kotlin:kotlin-stdlib:$kotlin_version"
}
```

1. Ensure your main

build.gradle file includes the required repositories and set Android Gradle Plugin to version 7:

```
allprojects {
    repositories {
        google()
        mavenCentral()
    }
}

buildscript {
    dependencies {
        classpath 'com.android.tools.build:gradle:7.0.2'
    }
}
```

1. Remove/disable

repositoriesMode in your settings.gradle file :

```
dependencyResolutionManagement {
    // Disable the following line:
    // repositoriesMode.set(RepositoriesMode.FAIL_ON_PROJECT_REPOS)

    repositories {
        google()
        mavenCentral()
    }
}
```

1. If your app uses the

android:allowBackup tag, include the following settings in the Activity section of your AndroidManifest.xml file :

```
<application
    tools:ignore="AllowBackup,GoogleAppIndexingWarning"
    tools:replace="android:allowBackup">
```

Initializing Lens Headless CreditCards SDK to your project

1. Import required classes from Lens SDK:

```
import com.verifyfi.lens.headless.creditcards.VerifyfiLensHeadless
import com.verifyfi.lens.headless.creditcards.
VerifyfiLensHeadlessCredentials
import com.verifyfi.lens.headless.creditcards.VerifyfiLensHeadlessSettings
```

1. Configure your

authentication credentials:

```
val verifyfiLensCredentials = VerifyfiLensHeadlessCredentials()
verifyfiLensHeadlessCredentials.clientId = "XXX" // replace XXX with
your assigned Client Id
verifyfiLensHeadlessCredentials.username = "XXX" // replace XXX with
your assigned Username
verifyfiLensHeadlessCredentials.apiKey = "XXX" // replace XXX with
your assigned API Key
verifyfiLensHeadlessCredentials.url = "XXX" // replace XXX with
your assigned Endpoint URL
```

1. Mandatory settings to use Lens Credit Cards. More available settings later in this section.

```
val verifyfiLensHeadlessSetting = VerifyfiLensHeadlessSettings()
verifyfiLensHeadlessSetting.isProduction = true
```

1. Initialize Lens:

```
VerifyfiLensHeadless.configure(this, verifyfiLensHeadlessCredentials,
verifyfiLensHeadlessSetting) {
    Log.d(TAG, "VerifyfiLensHeadless.configure $it")
}
```

1. Go to your camera X code default ImageAnalysis.Analyzer

```
CameraAnalyzer { byteArray, width, height ->
    //Integration with Lens SDK
    VerifyfiLensHeadless.processCreditCardNumber(Frame(byteArray, width,
height))
})
```

Available settings:

isProduction: false value point to devapi, true point to production api

Communicating with Lens

1. Use the `VeryfiLens.setDelegate` function to define your delegate functions that will be responsible for handling events triggered by Veryfi Lens

```
VeryfiLensHeadless.setDelegate(object : VeryfiLensHeadlessDelegate {  
    override fun veryfiLensClose(json: JSONObject) {  
        Log.d(TAG, json.toString(2)) // do something with the JSON  
response here  
    }  
  
    override fun veryfiLensError(json: JSONObject) {  
        Log.d(TAG, json.toString(2)) // do something with the JSON  
response here  
    }  
  
    override fun veryfiLensSuccess(json: JSONObject) {  
        Log.d(TAG, json.toString(2)) // do something with the JSON  
response here  
    }  
  
    override fun veryfiLensUpdate(json: JSONObject) {  
        Log.d(TAG, json.toString(2)) // do something with the JSON  
response here  
    }  
})
```

`veryfiLensUpdate` - during the processing of a credit card frames, this delegate will be fired multiple times with data extracted on real-time.

```
{  
    "card_number": "5438 6200 0258 1920",  
    "card_name": "",  
    "card_type": "",  
    "card_dates": [  
        "",  
        ""  
    ]  
}
```

`veryfiLensSuccess` - this delegate fires once a credit card has finished processing. This delegate provides the response from the data extraction.

```
{
  "card_number": "5438 6200 0258 1920",
  "card_name": "LALEJADDRO ARIDE S",
  "card_type": "mastercard",
  "card_dates": [
    "11\15",
    "12\21"
  ]
}
```

`veryfiLensError` - if an error occurs during processing a card, an error object is sent. If a general exception or crash is caught in Veryfi Lens, an exception object is sent instead

```
{
  "status": "error",
  "package_id": "f7d3d73ba7264742",
  "error": "Error message"
}
```

Please note: adding Android Lens Headless Credit Cards SDK to your app will increase your final app size by up to 7 MB. This is due to machine learning models, support libraries, etc included in the SDK.