

## Exercise Networking with coroutines

Create an application that downloads a picture (e.g., <https://users.metropolia.fi/~jarkkov/folderimage.jpg>) from the web and displays it in an Image composable.

Hint 1: Use Coroutine for downloading the picture. `BitmapFactory.decodeStream()` can decode an inputstream into a Bitmap.

Hint 2: If you want to follow the communication between your application and the server, use App Inspector. It can be activated when the application is running (either on your phone or on the emulator) by clicking the App Inspector name on the bottom menu/icon line. If you select a time scale on the Network graph, you can see the query and response in clear text.

Hint 3: Remember to insert permissions for the Internet communication to the Android Manifest.xml file

```
<uses-permission android:name="android.permission.INTERNET" />
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
```

Installing a new version of the application with these new permissions requires the old application to be removed from the emulator/phone by hand before a new version with new permission can be installed to the emulator/phone.

Hint 4: If you want to use lifecycleScope ensure that you have the following line in your modules build-gradle

```
implementation 'androidx.lifecycle:lifecycle-runtime-ktx:2.8.5'
```

