The provided ZIP file contains 5 raster images in TIFF format. They represent EVI (Enhanced Vegetation Index) Sentinel-2 satellite data on an agricultural plot in Southern Bohemia, Czechia. EVI is a good indicator of green biomass which can be used to predict crop yield.

Each image is from a different season as you can see from the file name. Pixels outside of the plot boundaries have no data and their values equal to -998.

Your task is to create one new raster image (TIFF) which represents the average EVI variability on the plot between the 5 seasons. The output should show which parts of the plot usually produce a lot of vegetation, and which produces less vegetation.

Divide the plot into 5 different classes and label the classes 1, 2, 3, 4 and 5. The resulting raster image should therefore contain only these 5 values plus the -998 values for no data.

The classes should go from lowest vegetation (class 1) to highest (class 5). Visualize the result.

You can use Python or a GIS software like QGIS. In Python, we recommend using the rasterio library to read and visualize the data.

For simplicity, we suggest you first reclassify each raster image individually and then you create an average from the 5 reclassified images. After averaging them together, round the values so that you get just the 5 classes.

There are many reclassification methods which you can use, for example thresholding or clustering. Choose one.

Your result should contain the reclassified TIFF image and a PDF document with the visualized colored raster and short description of your work. Explain your methodology and describe the tools you used.