City Highlights for Salzburg using sentinel 2 data by applying custom script ID(s1109445)

Objective: To identify urban areas, vegetation, and water bodies within Salzburg city using Sentinel-2 data.

Data Used:

Sentinel-2 imagery was selected for its high-resolution, multispectral capabilities, making it ideal for urban and environmental analysis. Custom scripts incorporating NDVI (Normalized Difference Vegetation Index), NDWI (Normalized Difference Water Index), and NDBI (Normalized Difference Built-up Index) were utilized for preprocessing.

This algorithm is a combination of 3 binary maps from Sentinel 2 satellites , based on the well known NDVI (Normalized Difference Vegetation Index), NDWI (Normalized Difference Water Index), band ratio and NDBI (Normalized Difference Built-up Index).

The result is particularly useful for an overview of where are the cities, and their relations to water bodies and vegetation areas.

- city highlights is the result of the script
- true color is showing the default true color representation of Sentinel Hub EO browser.

Besides the 3 basic targets such as Rooftops, Vegetation and Water, it is possible to view the following in the results for Salzburg city:

1. urban areas with rooftops and buildings in red
2. high probability of vegetation areas in green
3. rivers, pools and the sea in blue