How to work with Cesium Imagery Services?

Initial Steps:

- 1. Download and install Cesium JS https://cesiumjs.org/downloads.html
- 2. Download the zip file Cesium_Imagery_Services_Sample_code.zip and extract it in the Cesium folder.
- 3. The Cesium_Imagery_Services_Sample_code folder has three files: CesiumWMS.html, CesiumTMS.html, and CesiumWMTS.html
- 4. Open **command prompt** and start the Cesium server by: **node server.js**
- 5. Check if the Cesium server is up and working by accessing http://localhost:8080/ in the browser (preferably Google chrome).

Working with WMS

Open the file CesiumWMS.html in the browser by accessing http://localhost:8080/sample_codes/CesiumWMS.html

Let's see how it works?

Open the file CesiumWMS.html using a text editor.

In this file, there are several options to specify the properties of the imagery to be fetched from the server.

For instance:

a) var url='https://geodata.nationaalgeoregister.nl/top100raster/wms?';b) layers: 'top100raster'

a) specifies the URL of the WMS service and b) specifies the layer to be displayed in the browser.

Working with TMS

Open the file CesiumTMS.html in the browser by accessing http://localhost:8080/sample_codes/CesiumTMS.html

Let's see how it works?

Open the file **CesiumTMS.html** using a text editor. In this file, there are several options to specify the properties of the imagery to be fetched from the server.

For instance:

- a) var url= 'https://geodata.nationaalgeoregister.nl/tms/1.0.0/top100raster@EPSG: 28992@png';
 b) f) E (19)
- b) fileExtension: 'png',

a) specifies the URL of the TMS service (including layer name and SRS) and b) specifies the file extension of the layer to be displayed in the browser.

Working with WMTS

Open the file CesiumWMS.html in the browser by accessing http://localhost:8080/sample_codes/CesiumWMTS.html

Let's see how it works?

Open the file CesiumWMTS.html using a text editor.

In this file, there are several options to specify the properties of the imagery to be fetched from the server.

For instance:

a) var url=

'https://geodata.nationaalgeoregister.nl/tiles/service/wmts/brtachtergro
ndkaart?request=GetCapabilities';

- b) layer: 'brtachtergrondkaart'
- c) format: 'image/png'
- d) tileMatrixSetID: 'EPSG:28992',
- e) tileMatrixLabels: ['EPSG:28992:0', 'EPSG:28992:1','EPSG:28992:2','EPSG:28992:3','EPSG:28992:4','E

PSG:28992:5','EPSG:28992:6','EPSG:28992:7','EPSG:28992:8','EPS G:28992:9','EPSG:28992:10','EPSG:28992:11','EPSG:28992:12','EP SG:28992:13','EPSG:28992:14'],

a) specifies the URL of the WMTS service and b) specifies the layer to be displayed in the browser and c) specifies the Mime type for the image to be fetched from the server and d) and e) specify the identifiers for the tile matrix set and individual tile matrices respectively.