How to Publish Vector Data

2022

Vector /Raster Data Publishing using Geoserver Editor

Go to the Geoserver main page by clicking on the following link.

https://data.apps.fao.org/map/gsrv/edit/web/
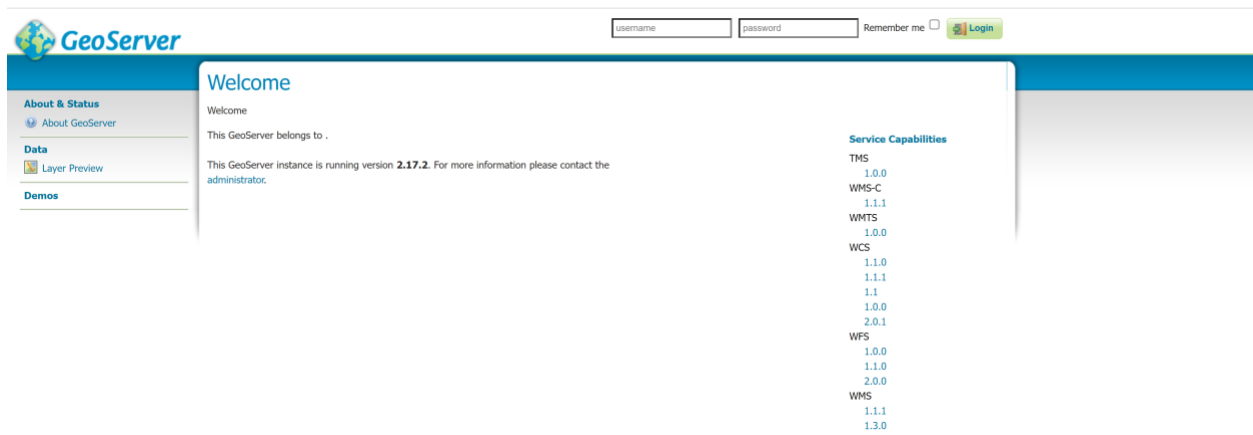
Insert the provided credential details in **username** and **password**.

After successfully logging in, the Geoserver page will be displayed.
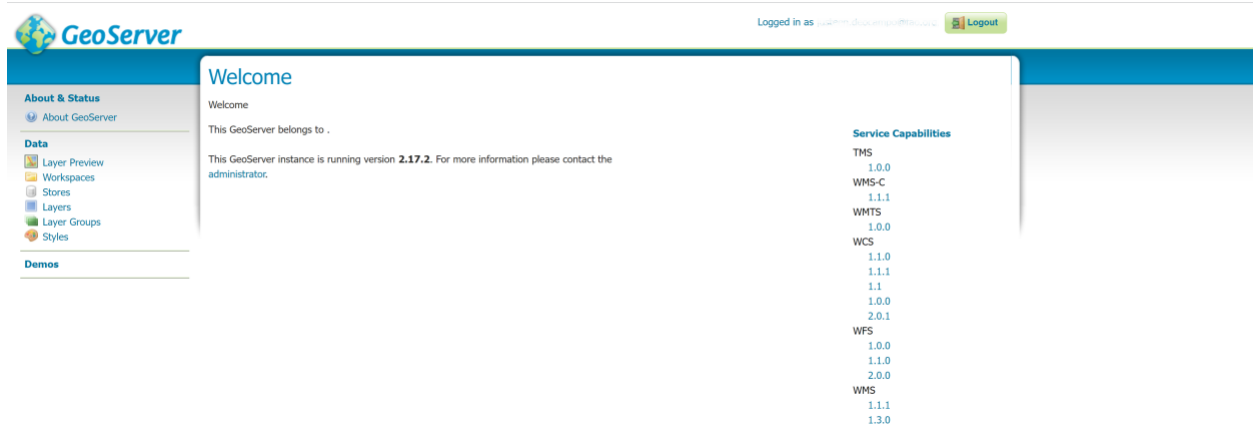
In the left section under **Data,** it shows the different sections to view the published dataset.

To begin the data publication process, our first step is preparing the data for the publication.

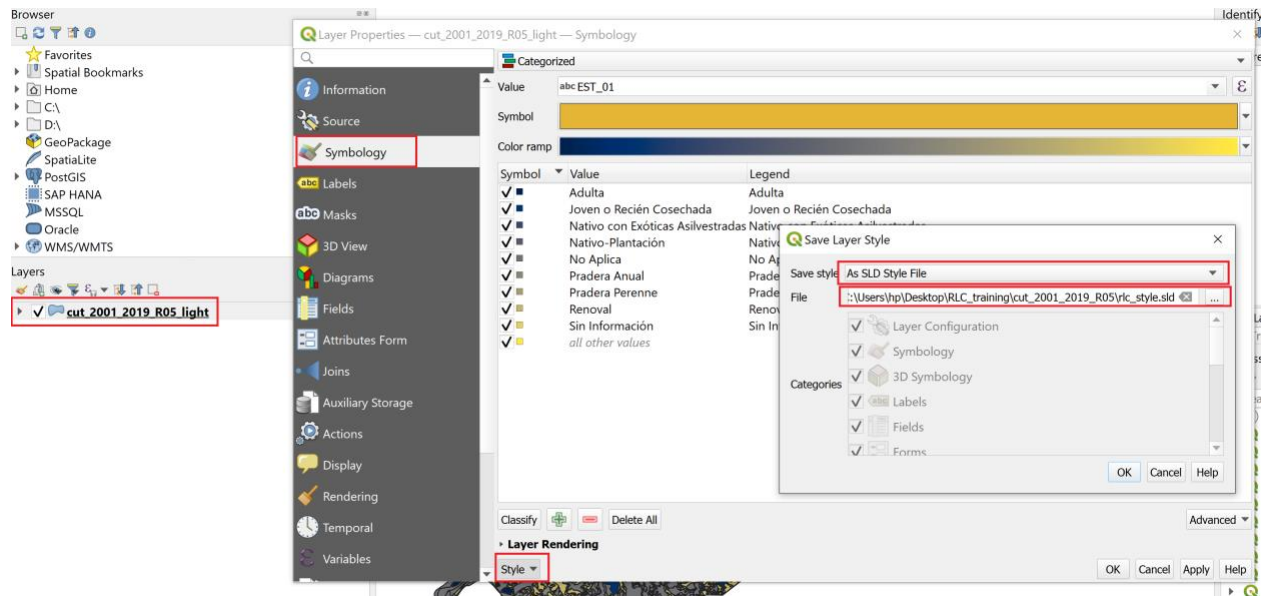Let's take an example of the vector and raster data.

Open the shapefile in the software of your choice (QGIS, Arc Map). We recommend QGIS because it will also help to create the symbology style file that accepted in Geoserver.

Go to QGIS and open the datasets that you want to publish in Geoserver.

In QGIS prepare the symbology and then export style file for Geoserver.

As shown in the image, right click on the shapefile as highlighted and go to symbology.

Then select style type **As SLD Style File** and save the SLD file in preferred folder.

The SLD file will be look like this and it can be edited with any editor like notepad.

If you like to read about Geserver layer style. The documentation page is available here: https://docs.geoserver.org/stable/en/user/styling/sld/index.html
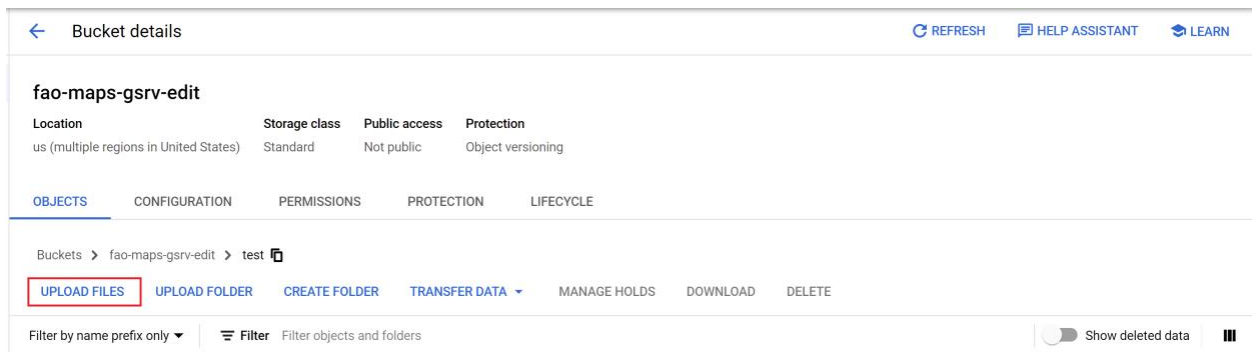
After finalizing the data to be published, please check the projection of dataset. The recommended projection for the datasets are EPSG:4326 , EPSG:3857.

The next step for the data publishing:

Go to GCP bucket by clicking on the following link:

https://console.cloud.google.com/storage/browser/fao-maps-gsrv-edit;tab=objects?forceOnBucketsSortingFiltering=false&authuser=1&project=fao-maps&prefix=&forceOnObjectsSortingFiltering=false

Open the folder and upload the data to publish.

Click on the upload files as shown in image to upload the shapefile in the bucket. Please take a note the shapefile should not be in zip folder.

Select the following files .shp , .dbp ,.prj , .shx ,.cpg to upload.

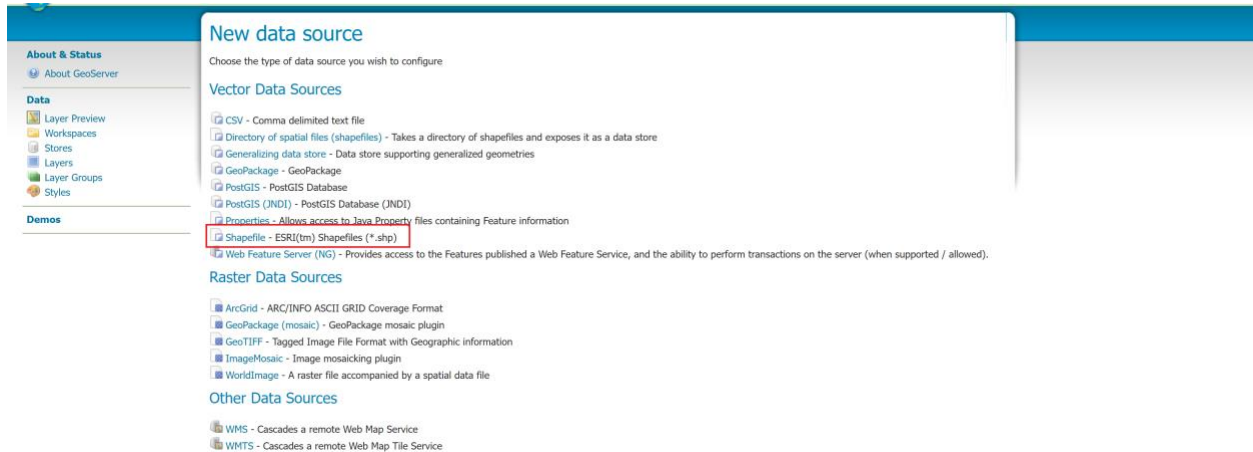After uploading the shapefile it will be look like this in the bucket

The data uploading into the bucket is completed .

Next step is to open Geserver Editor.

From the left menu section click on **Stores.**

Then click on the **Add new store.**
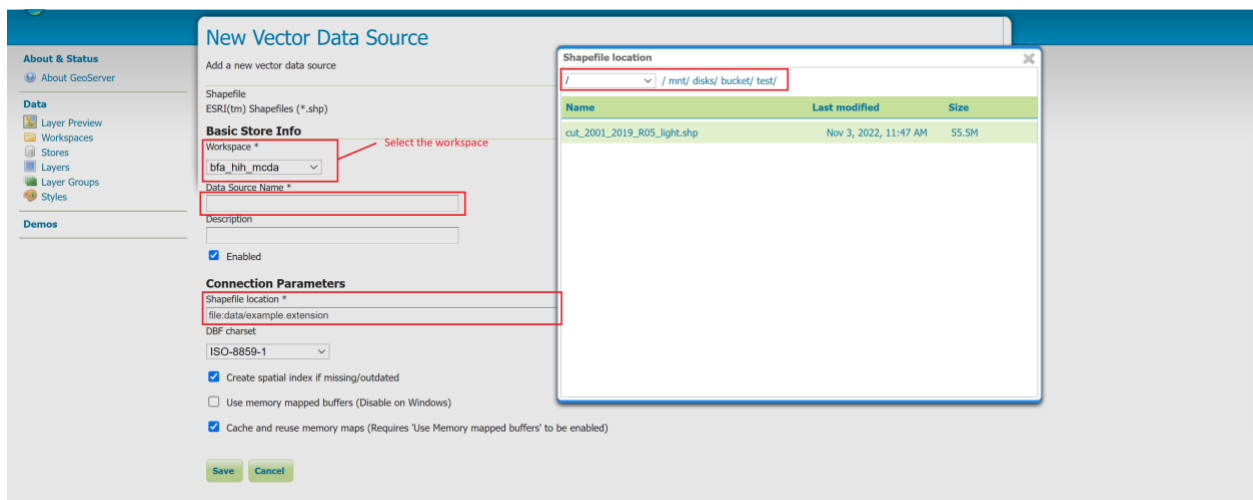
Click on the shapefile as shown in the image.

Enter the details as shown in the image.

Workspace

Data Source name

Shapefile location from the bucket: /mnt/disks/bucket/{shapefile_floder}/

After inserting the details click on the save button

Click on the publish button as shown in the image

Then the layer section will open where we will calculate the bounding box of the layer by clicking **compute from data.**

Calculate the layer **native bounds** as well.

After inserting these mandatory details click the Save button to save the changes and publish the layer in Geoserver.

To view the published layer click on **Layer Preview** from the left menu.

Once the layer is published successfully, the next step is to create the style for the layer.

Click on the **Styles** from left menu section.

In the **Styles** click on the **Add new style**

Enter the name of the style and select the workspace for the style. Make sure the style is stored in the same workspace as your layer.

Click on upload button to upload the style file created in QGIS

Finally click on **Submit**

Once the style has been created successfully, we will now assign this style to layer already published in Geoserver.

Click on **Layers** from left menu and locate the shapefile you have published. Open shapefile.

Inside layer editing section click on the **Publishing** tab.

Select the style for the layer as shown in the image and save changes.

NumberMatched skip

☐ Skip the counting of the numberMatched attribute

Extra SRS codes for WFS capabilities generation

☐ Override WFS wide SRS list

Coordinates Encoding

☐ Encode coordinates measures

WMS Settings
Layer Settings

☑ Queryable

☐ Opaque

Default Style

| hih_test:rlc_style ▼ |

■ Adulta

■ Joven o Recién Cosechada

■ Nativo con Exóticas Asilvestradas

■ Nativo-Plantación

■ No Aplica

■ Pradera Anual

■ Pradera Perenne

■ Renoval

■ Sin Información

■ EST_01_is "

After assigning the style to the layer next step is to create dimensions for the layer (Time , Elevation or Custom Dimension).