



## Section : 1. GeoNode

### Module : 1.18. GeoNode Search



#### Searching GeoNode Resources

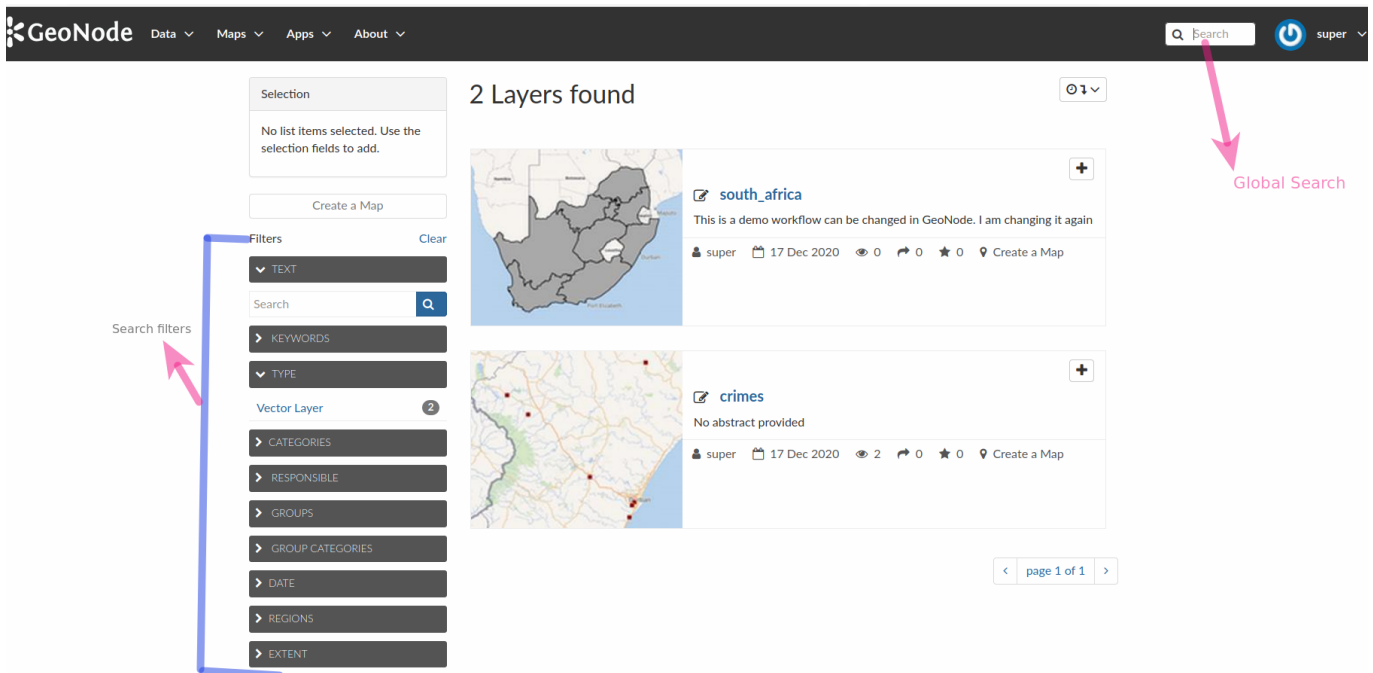
*“GeoNode has powerful search functionality that combines search queries with metadata, dynamic filters and spatial context”*

GeoNode search is based on content details, content metadata, and adds a combination of additional filters to ensure that users can easily find relevant content even with a very large catalog of data. This can be combined with regional and spatial filters to ensure that content may be filtered by location even when it shares common characteristics to other data stored on the platform.

By default, the search interface displays all content available to the current user based on the currently selected content type, with search features available to filter the results using the following utilities:

- Free keywords text search: Arbitrary text supplied by the user for search terms
- Keywords: Specific keywords taken from the keyword list supplied in content metadata. GeoNode metadata supports arbitrary text values for keywords, and if none are supplied it may simply use the layer name
- Type: The type of underlying data content. For layers, this may be vector, raster, or remote data, but for documents, it may be based on image, presentation, or text data types (amongst others)
- Categories: These are predefined (by system administrators) categories which are added as a metadata tag for structured filter terms
- Responsible: Indicates user accounts associated with the upload, management, and metadata editing for a particular content item
- Groups: User groups that are associated with the content in the metadata. Note this does not indicate the users associated with content permissions
- Groups Categories: Administrator defined categories that are assigned to groups. As groups may be assigned multiple categories, it broadens the search filter beyond the standard Group filter
- Date: Filters content based on Publication Date
- Regions: a text-based metadata region which is intended to be directly related to the geographic region associated with the content
- Extent: limited to the maximum extent of feature geometries using an interactive map viewer

The resulting features can also be sorted by publication data, alphabetically by title, or by popularity (the number of views content has) to assist users with finding the most relevant content available.



## You try:

**Goal: To explore how to browse and filter GeoNode content**

### Exercise 01 - Using the GeoNode Global Search

- Navigate to your GeoNode instance
- Click in the search field on the top right of the navigation toolbar
- Enter the name of the layer or a defining keyword for the data you wish to access
- Try to check whether the search utility is able to automatically filter the available results based on our inputs
- Attempt to use the auto-completion functionality of the global search toolbar to find your data
- Preview the layer you have searched and verify it is the correct data

### Exercise 02 - Using the GeoNode Search Filters

- Navigate to your GeoNode instance
- Select the **Advanced Search** to navigate to the search page, or use the global search as in Exercise 01
- Alternatively navigate to the layers, maps, or documents page to search for content of a specific type
- Use the Search Options and filters on the left of the search interface
- The layers are filtered based on the search options

### Check your results

After searching your layers you should see the layer or maps you have just selected and you can explore the available data and content that is similar based on what was returned in the search results. You can also add multiple layers to a map and compare datasets.

Note that the results of the search options are heavily dependent on the metadata captured for the content. It is therefore imperative that large data repositories adopt strong metadata management procedures in order to ensure that the platform may be leveraged effectively.

Name	Expectation
Spatial Search - Extent	Zoom to extent of a country or region
Spatial Search - Regions	Select a specific region, i.e. Europe > United Kingdom

## More about searching and accessing resources

Locating resources in GeoNode is done using the powerful open source elastic search framework for filtering queries, which provides a distributed, multitenant-capable full-text search engine with an HTTP web interface and schema-free JSON documents. The elastic search functionality is built into the Free keywords text search and supports some level of autocompletion, but fuzzy matching is limited.

The global search tool is, by default, always available from the top navigation bar, ensuring that the basic searching of all content types based on keywords is achievable readily, and the advanced data management search tools and filters are only critical on GeoNode instances with very large content repositories or where many of the content items share similar data.

Users can make use of the search parameters in the URL bar to help them with customized search options. For example, a user might change the web address for a search from `https://geonode.domain.tld/search/?limit=5` to `https://geonode.domain.tld/search/?limit=10`, which will return the same results but with 10 items instead of 5.

## Check your knowledge:

1. What is the difference between searching for layers when logged into GeoNode vs not logged in:
  - a. When logged in there are more search options available
  - b. Searching for non logged users provides more options
  - c. Layers searched when non logged can not be downloaded
2. What is a remote service:
  - a. A GeoNode instance that is setup on a different server to provide geospatial layers
  - b. Vector layers that can be accessed from the internet
  - c. Any OGC service that provides layers as WMS, WFS and WCS layer
3. Can you search for non-spatial content and maps in GeoNode:
  - a. Yes
  - b. No
  - c. I do not know.

## Module video tutorial:

- [https://www.youtube.com/watch?v=Nfl22BG6piU&list=PLrZxneE\\_xfYtdMxOPXzeCmFft9ld0gywM&index=17](https://www.youtube.com/watch?v=Nfl22BG6piU&list=PLrZxneE_xfYtdMxOPXzeCmFft9ld0gywM&index=17)

## Further reading:

- user\_features [http://docs.geonode.org/en/latest/tutorials/overview\\_and\\_ref/user\\_features/](http://docs.geonode.org/en/latest/tutorials/overview_and_ref/user_features/)
- searching <http://docs.geonode.org/en/master/tutorials/users/searching/>