
Creating Beat Map

For Solid Waste Management

Mumbai Prabhag61 example

— —

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Create new account
Click on "Register" on navigation bar

Welcome

GeoNode is an open source platform for sharing geospatial data and maps.

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Search

Register Sign in

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Create a new local account

E-mail

E-mail address

Username

Username

Password

Password

Password (again)

Password (again)

Sign up

Data
Layers
Documents
Remote Services

Maps
Explore Maps

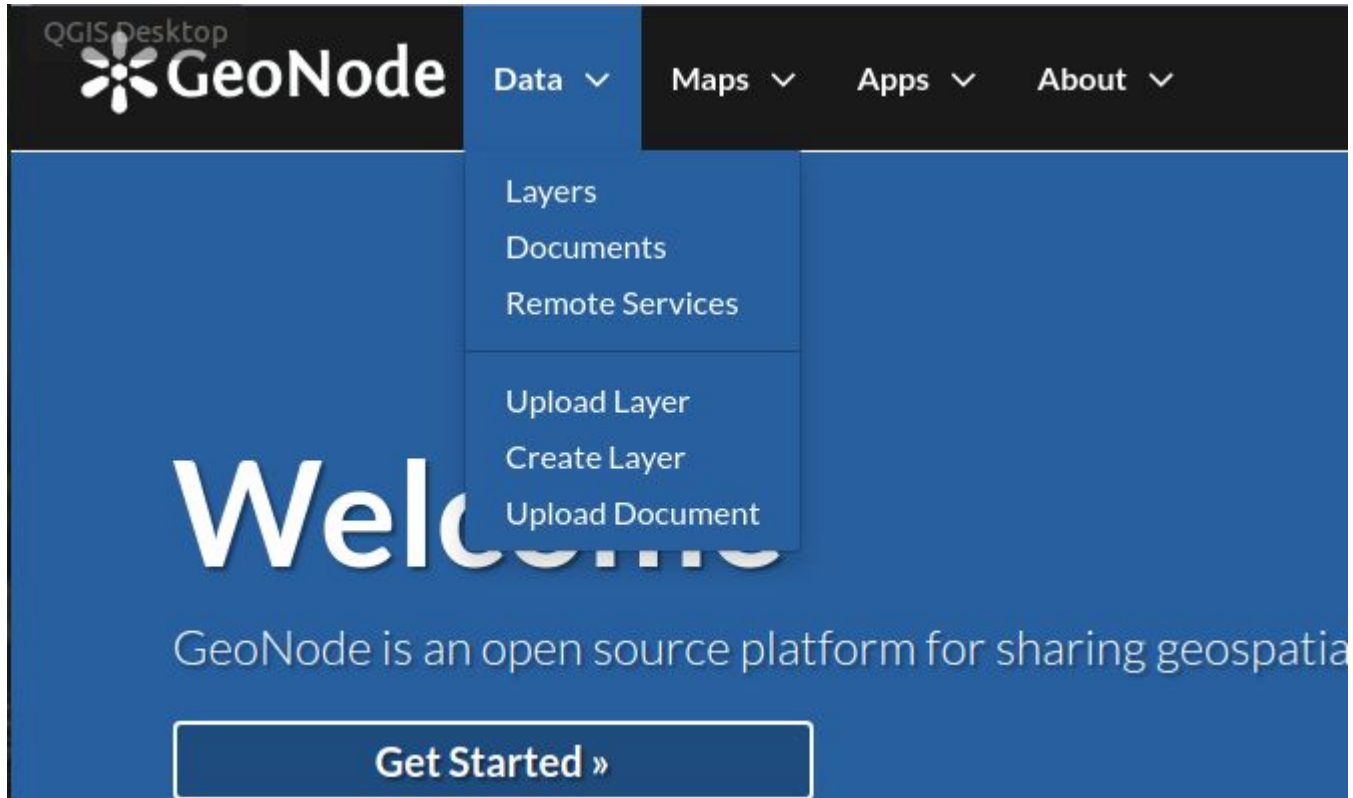
About
People
Groups

Powered by [GeoNode](#)
[Developers](#) | [About](#)

English

Creating empty layer

Once logged in click on “Data” dropdown and then click “Create layer”



The image shows the GeoNode QGIS Desktop interface. At the top left, the text "QGIS Desktop" is visible above the GeoNode logo, which consists of a stylized flower icon and the word "GeoNode". To the right of the logo is a navigation bar with four dropdown menus: "Data", "Maps", "Apps", and "About". The "Data" dropdown menu is open, showing a list of options: "Layers", "Documents", "Remote Services", "Upload Layer", "Create Layer", and "Upload Document". The "Create Layer" option is highlighted. Below the navigation bar, the word "Welcome" is displayed in large white letters. Underneath, a subtitle reads "GeoNode is an open source platform for sharing geospatial data". At the bottom, there is a white button with a black border that says "Get Started »".

What is Beat?

- Beat is the area, mostly a group of buildings from where the waste is collected.
- It is of around 8000 m sq.
- So, our motive is to trace the beats and mention who is responsible for the Waste Management of the particular beat.

Hence, we need 3 fields in our data:

- area_name,
- beat_name and
- emp_responsible.

Note: We will also be calculating the area of the polygon so as to know it remains

~8000 m sq

- Enter layer name and title
- Select Geometry type as Polygons

Create an empty layer

Layer name

Layer title

Geometry type

Add Attribute

Create

- Add Attribute Like area name, beat name and employee responsible for that beat along with their data type accordingly using “Add attribute button”
- Click on create

Geometry type

Polygons

Add Attribute

area_name

String

Remove

beat_name

String

Remove

emp_responsible

String

Remove

Create

A new empty layer is created.. Click on view layer

Prabhag61_beat



Download Layer

Metadata Detail

Editing Tools

View Layer

Download Metadata

Legend

Adding Ward layer

Click on layer icon



Click on add layer icon

The screenshot displays the GeoNode web interface. At the top left, the GeoNode logo is followed by navigation links: Data, Maps, Apps, and About. On the top right, there is a search bar with the text "Search by location name" and a user profile icon labeled "dummy".

The main area is a world map. On the left side, there is a sidebar for layer management. It includes a "Filter layers" input field, a "Default" layer, and a "Ward61 - Regions" layer. A red arrow points to the "Add layer" icon (two overlapping maps) located between the "Filter layers" field and the "Default" layer.

At the bottom left, there is a "Map" control panel with several map style thumbnails: "Open Street Map", a satellite view, a topographic view, a dark theme, and a "Preview Not Available" option. At the bottom right, there is a zoom control panel with a "+" button, a "Decrease zoom" button, a "-" button, and a "More options" button (three dots).

At the bottom left of the page, there is a copyright notice: "© OpenStreetMap contributors." At the bottom right, there is a scale indicator: "Scale: 1: 147914678".

- Search for corporator ward layer in search bar of right panel
- Click on + icon to add that to act as an overlay

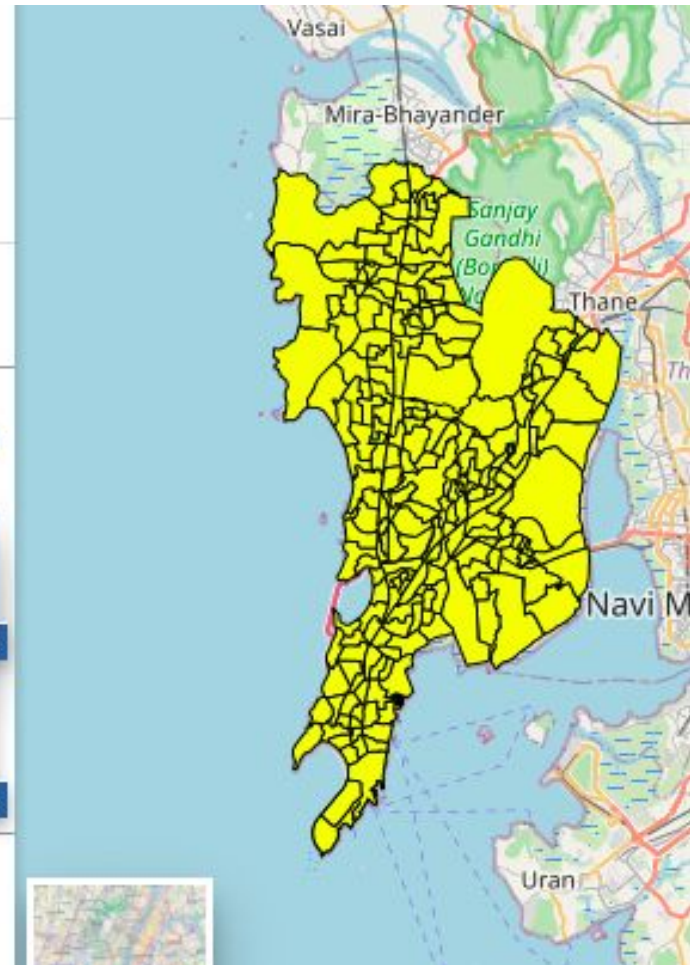
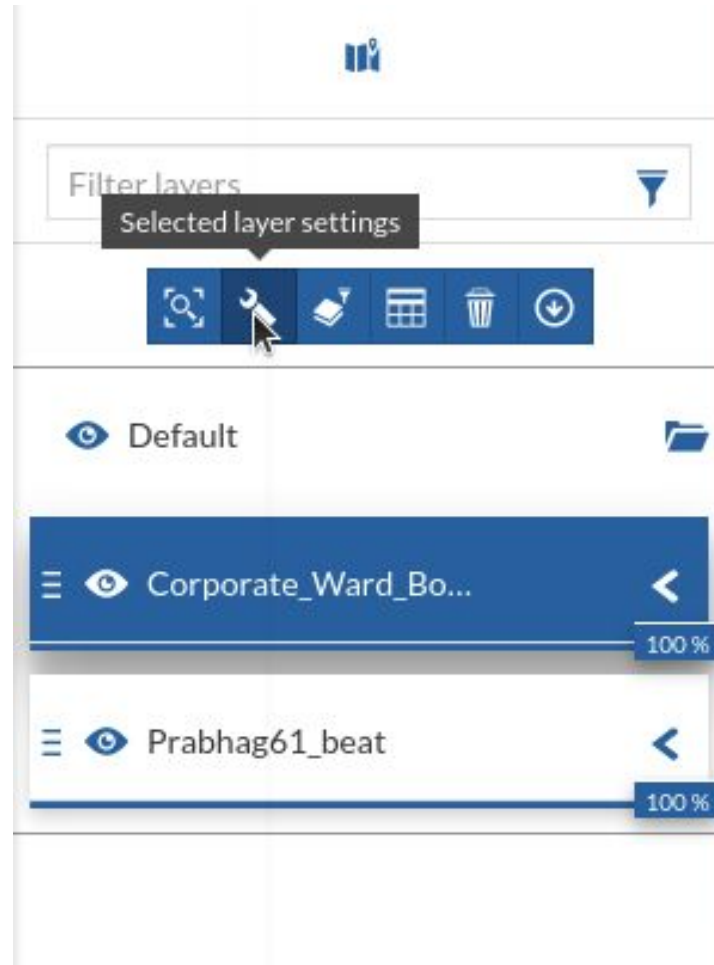
The screenshot displays the GeoNode web interface. At the top left is the GeoNode logo. The top navigation bar includes links for Data, Maps, Apps, and About. On the right side of the top bar, there is a search bar containing the text "Search" and a user profile icon for "Himanshi2301".

The main interface is divided into three sections:

- Left Panel:** A sidebar containing a "Filter layers" input field, a "Default" layer selection, and a "Prabhag61_beat" layer selection.
- Center Panel:** A world map showing the current geographic context.
- Right Panel (Catalog):** A search results window titled "Catalog" with a search bar containing the text "corpora". Below the search bar is a "Search" button. The results list includes:
 - Corporate_Ward_Boundaries_22Dec2021:** Includes a thumbnail map of India, the text "No abstract provided", and the ID "935da388-6305-11ec-bc18-0242ac120009". A blue "+" icon is visible to the right.
 - Corporatorwardboundary Mumbai 13May:** Includes a "Preview Not" thumbnail and the text "No abstract provided". A blue "+" icon is visible to the right.

Reducing opacity of added layer

- Click on corporator ward layer on right panel
- Click on Settings Icon



- Click on “display” icon
- Enter required opacity in “Opacity %”
- Click on Save Icon

Corporate_Ward_Boundaries_22Dec2021

Format
image/png

WMS Layer tile size
512

Opacity %
60

Visibility limits

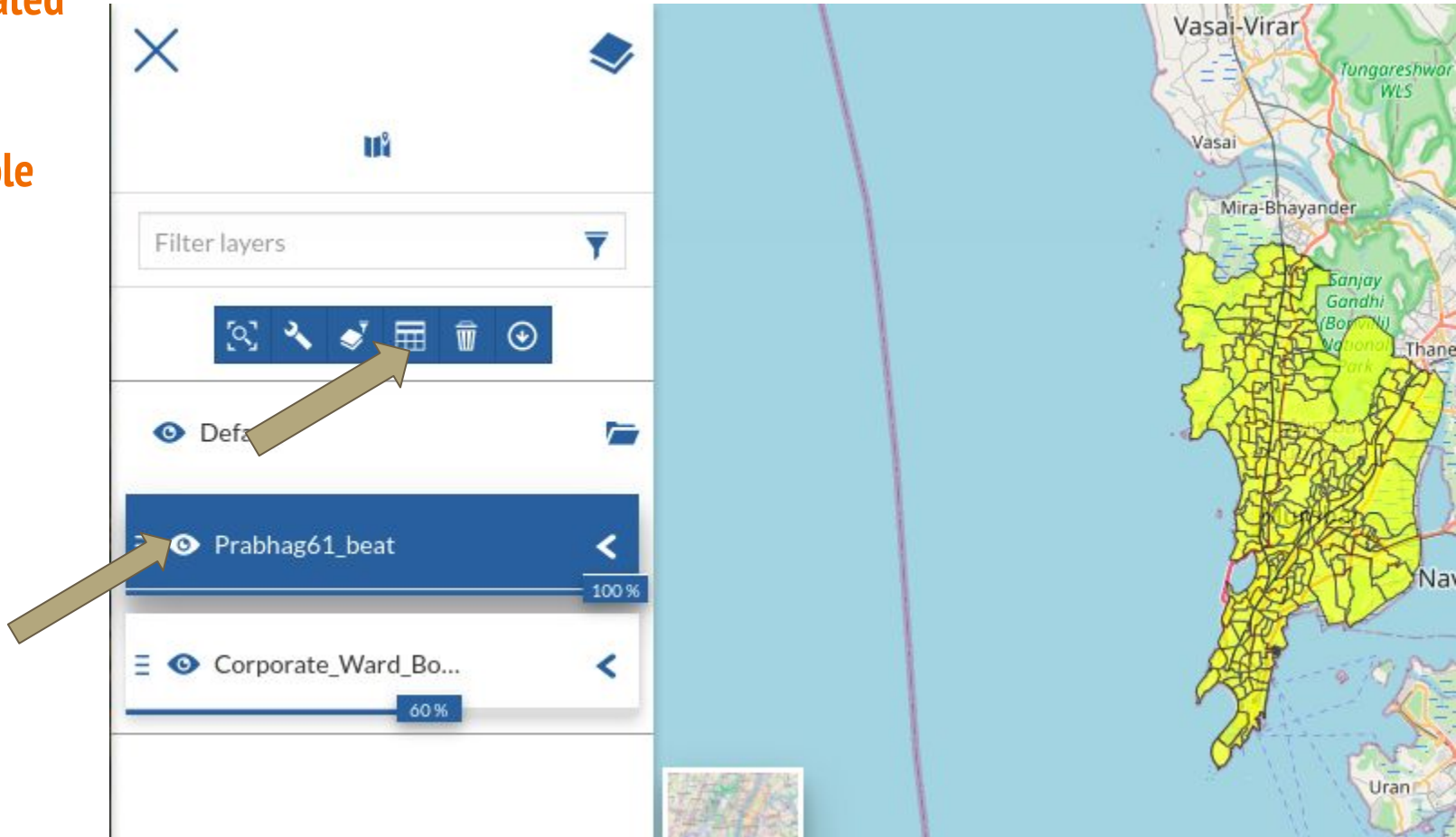
Max value (excluded)
Select max value

Min value (included)

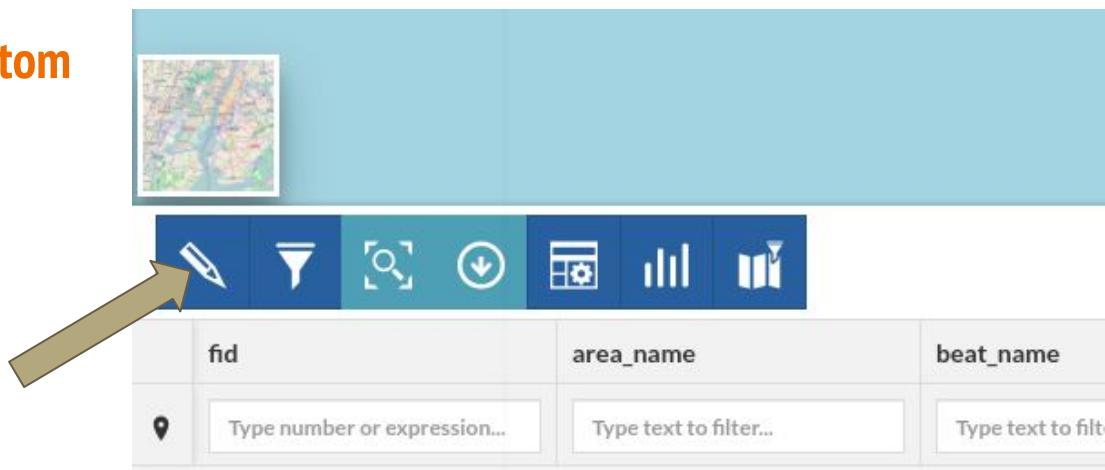
Map labels: Vasai-Virar, Vasai, Mira-Bhayander, Sanjay Gandhi (Borivli) National Park, Thane, Uran

Adding polygon with attribute

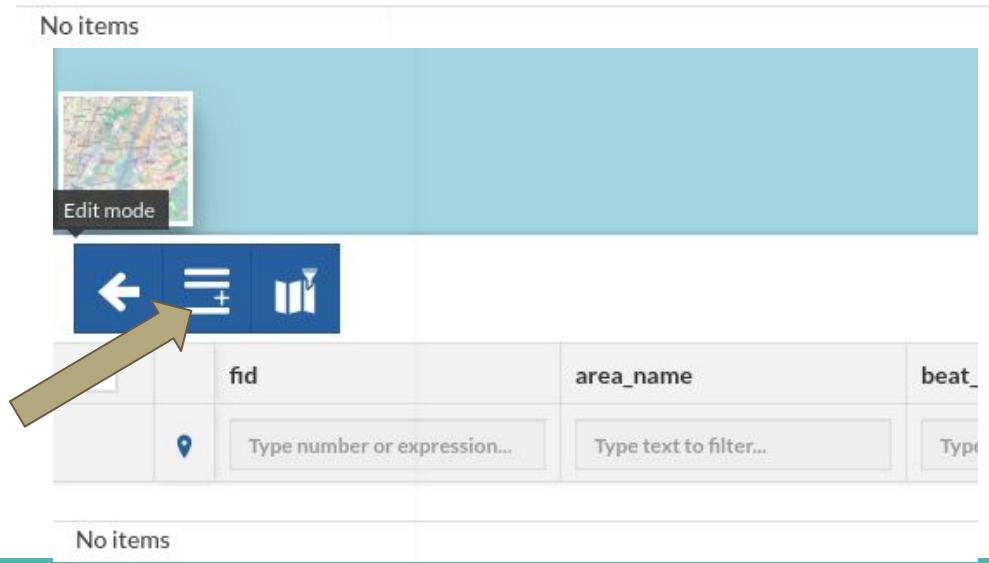
- Click on layer that you created initially
- Click on its attribute table



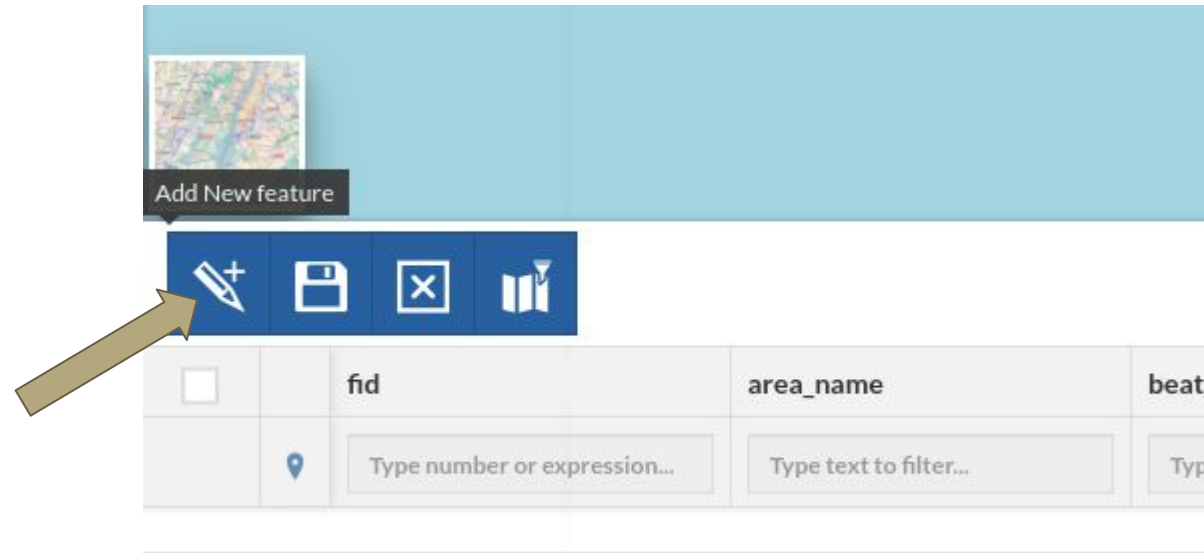
- Click on “edit mode” button on bottom panel



- Click on “Add new feature” button




- Click on “Draw Feature button”



- Zoom to the region you want to create layer

GeoNode Data Maps Apps About Search

Search by location name



Prabhag61_beat

<input type="checkbox"/>	fid	area_name	beat_name	emp_responsible
	<input type="text" value="Type number or expression..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>

No Features Available

- Single click on map to add points and close the loop to create polygon
- Click on Save button in the bottom panel

The screenshot displays a GIS application interface. The main map area shows a satellite-style view of a region with a blue polygon overlaid. The polygon is located in an area labeled 'Kanjungarg East'. A blue dot is visible on the left side of the polygon, indicating a point being added or closed. The map includes labels for 'Runwal Forest', 'Runwal Bliss', 'Babu Dhur Marg', 'Kanjur Village', and 'NH48'. A search bar at the top right contains the text 'Search by location name'. In the bottom left corner, a toolbar contains several icons, with a brown arrow pointing to the 'Save' icon (a floppy disk). The bottom panel shows a table with the following columns: 'fid', 'area_name', 'beat_name', and 'emp_responsible'. Each column has a corresponding filter input field. Below the table, the text 'No Features Available' is displayed.

fid	area_name	beat_name	emp_responsible
<input type="text" value="Type number or expression..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>

No Features Available

- Click on the attributes spaces created in the bottom attribute table and fill required data.
- Click on save button again to save the data attached with that drawn polygon.

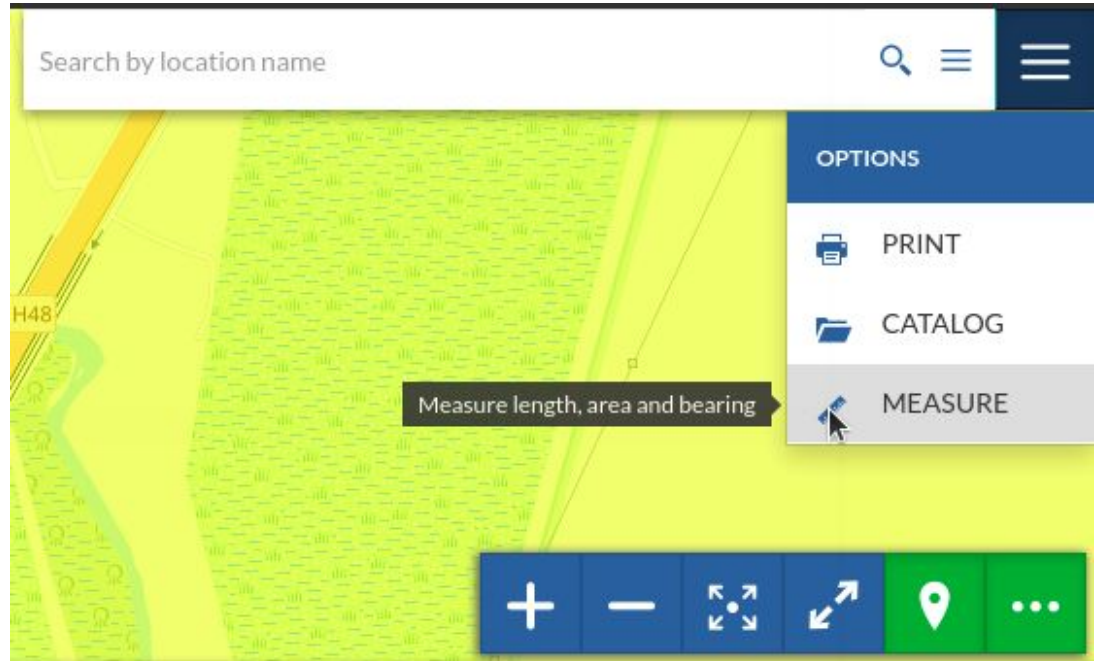


The screenshot displays a web-based GIS application interface. At the top, a map shows a street network with a yellow polygon drawn over a road. The map includes labels for 'RunwalBliss', 'Baba Dhuri Marg', 'Kanjur Village', and 'pragatya view'. A small inset map is visible in the top-left corner. Below the map is a toolbar with icons for save, close, delete, and zoom. The title 'Prabhag61_beat' is centered above the attribute table. The attribute table has five columns: 'fid', 'area_name', 'beat_name', and 'emp_responsible'. The first row contains the values '1', 'Kanjurmarg_east', 'xyz', and 'abc'. A brown arrow points to the save icon in the toolbar. The bottom of the interface shows the copyright notice '© OpenStreetMap contributors.' and a scale indicator 'Scale: 1: 9028'.

fid	area_name	beat_name	emp_responsible
1	Kanjurmarg_east	xyz	abc

Now we need to make sure that the drawn polygon is approximately 8000 m. sq.

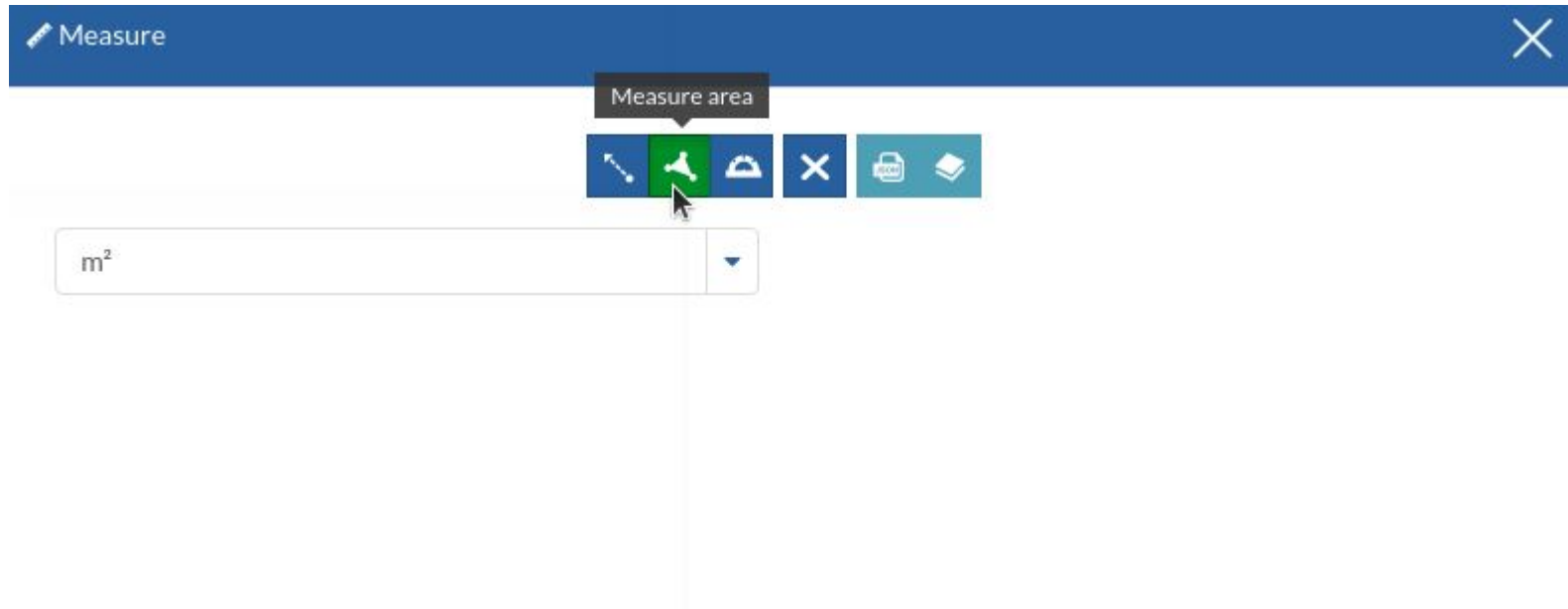
- Go to options icon in right most of the screen
- Click on measure.



possible

Now we need to make sure that the drawn polygon is approximately 8000 m. sq.

- In this dialogue box click on second icon to measure the area of the polygon drawn.
- Select the unit as m sq. from the dropdown.



Now we need to make sure that the drawn polygon is approximately 8000 m. sq.

- Slide the dialogue box using mouse to zoom on drawn polygon

The screenshot shows the GeoNode web interface in a Google Chrome browser. The browser's address bar displays the URL: `gis.communitygis.net/maps/new?layer=geonode:prabhag61_beat&view=True#`. The page header includes the GeoNode logo, navigation menus for Data, Maps, Apps, and About, a search bar, and a user profile for Himanshi2301. The main content area features a map of Kanjur East with a grey polygon drawn on it. Two callouts indicate the area's dimensions: `117.67m` and `117.67m`. A tooltip over the polygon reads "Click to continue drawing the polygon". A "Measure" dialog box is open on the right, showing a unit dropdown set to `m²`. Below the map, a toolbar contains navigation and editing icons. At the bottom, a table titled "Prabhag61_beat" is visible, with the following structure:

	fid	area_name	beat_name	emp_responsible
1 Item (1 Selected)				

The footer of the page includes the copyright notice "© OpenStreetMap contributors." and a scale indicator "Scale: 1:9028".

Now we need to make sure that the drawn polygon is approximately 8000 m. sq.

- Start drawing polygon on the drawn polygon. It will show the area in between of the polygon. (Here its showing ~40,000 m sq which is way more higher than our requirement which is 8000 m sq.)

The screenshot displays the GeoNode web interface. At the top, the navigation bar includes the GeoNode logo and links for Data, Maps, Apps, and About. The main map area shows a satellite view with a yellow-shaded polygon drawn over a building. The polygon's area is indicated as 40,186.84 m². Several side lengths of the polygon are also shown: 829.45 m, 105.66 m, 90.67 m, 273.23 m, 108.79 m, and 251.11 m. A tooltip提示 "Click to continue drawing the polygon" is visible near the 105.66 m side. The map includes street names like "Bavarkar Road" and "Amey Housing Society". A bottom toolbar contains icons for save, close, delete, and a location pin. Below the map, a table displays the following data:

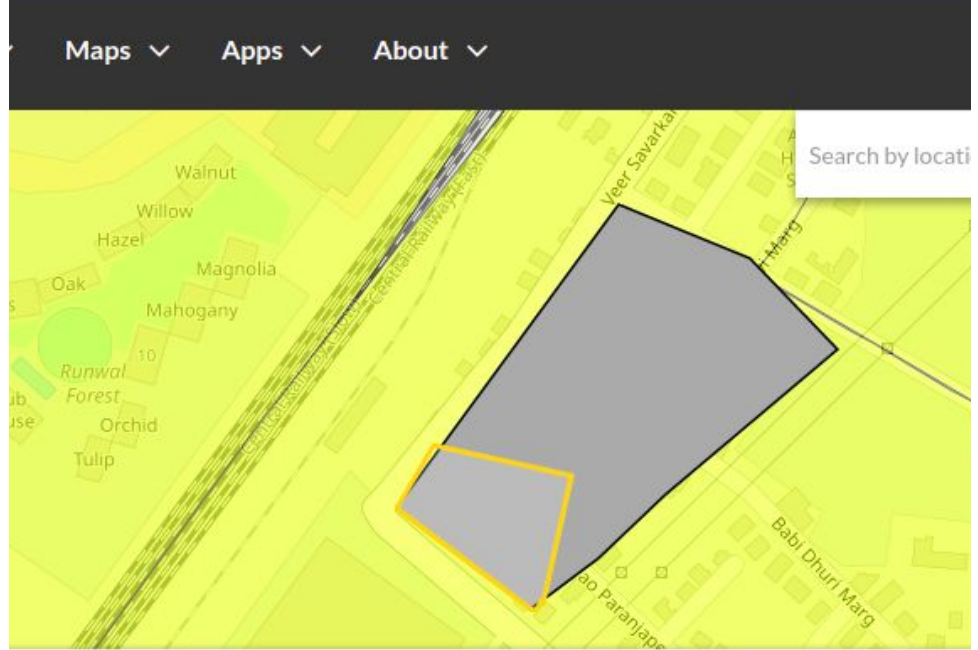
fid	area_name	beat_name

1 Item (1 Selected)

© OpenStreetMap contributors.

We need to edit the drawn polygon.

- Close the measure dialogue box
- Click on polygon's vertices and start reducing their lengths.

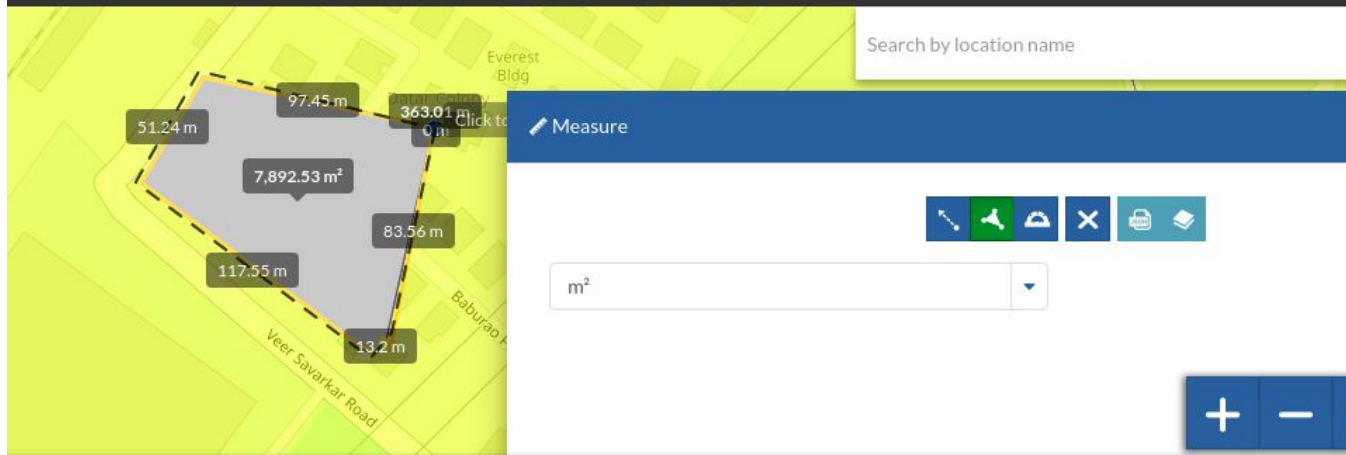


Prabhag61_beat

area_name	beat_name	emp_responsible
<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>
Kanjurmarg_east	xyz	abc

We need to edit the drawn polygon.

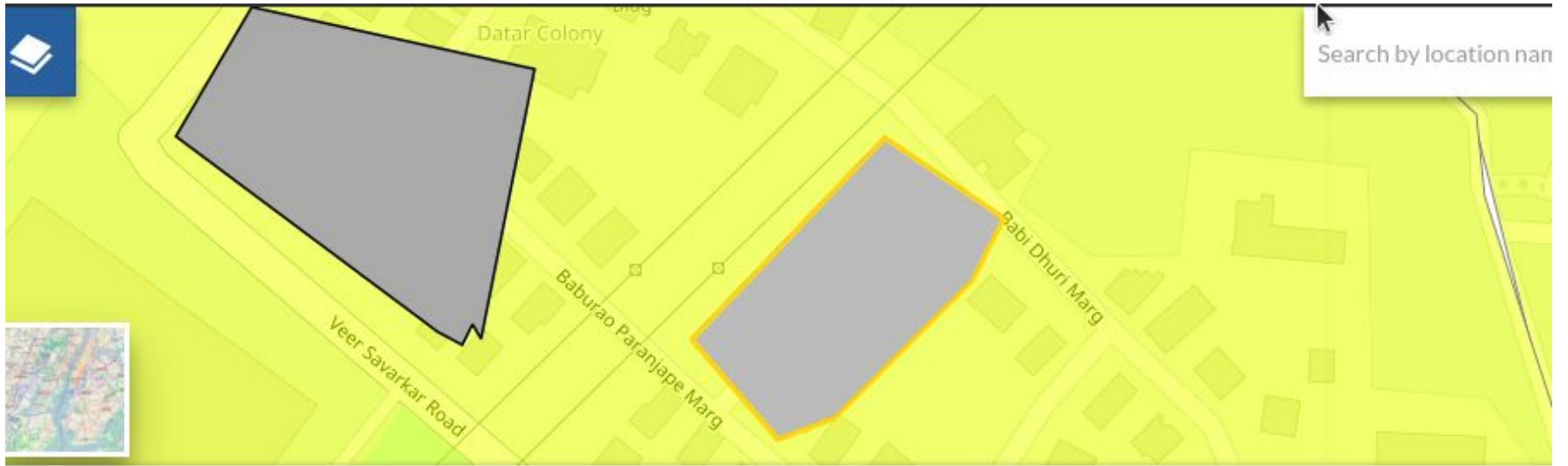
- Again measuring the area of reduced polygon.
- It's ~7800 m sq
- Close measure dialogue box.
- Click on save.



Prabhag61_beat

	area_name	beat_name	emp_responsible
number or expression...	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>
	Kanjurmarg_east	xyz	abc

- Similarly you add more features(polygons)
- You can also Login later to edit layer and more features



Prabhag61_beat

<input type="checkbox"/>		fid	area_name	beat_name	emp_responsible
		<input type="text" value="Type number or expression..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>	<input type="text" value="Type text to filter..."/>
<input type="checkbox"/>		1	Kanjurmarg_east	xyz	abc

Add KWest layer to the map

The screenshot displays the GeoNode web interface. The browser address bar shows the URL: `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`. The GeoNode logo and navigation menu (Data, Maps, Apps, About) are visible at the top. On the left, a layer list shows 'Default' and 'Beat' layers. The main map area shows a world map with a light blue overlay. On the right, a 'Catalog' panel is open, displaying search results for 'kwest'. The search results include two items:

- KWEST**
No abstract provided
2098f3f4-63a3-11ec-8463-0242ac120009
- kwest_property_location_details**
No abstract provided
11c93294-63ad-11ec-b219-0242ac120009

Each item has a small map thumbnail and a blue '+' button to add it to the map. The bottom right corner shows the scale: 1:295829355.

Select new layer and open attribute table

The screenshot displays a web browser window with the URL `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`. The application is titled "GeoNode" and includes a navigation menu with "Data", "Maps", "Apps", and "About". A search bar is present in the top right corner.

On the left side, there is a "Filter layers" sidebar. It contains a search box with the text "Open attribute table" and a list of layers: "Default", "KWEST", and "Beat". The "Beat" layer is currently selected and highlighted in blue.

The main map area shows a satellite-style map of Mumbai, India. A large, irregular area in the northern part of the city is shaded in a solid red color. The map includes various geographical features, roads, and labels for different neighborhoods and landmarks.

At the bottom left, there is a copyright notice: "© OpenStreetMap contributors." At the bottom right, a scale indicator shows "Scale: 1:72224".

Click on edit mode button to add features

The screenshot displays the GeoNode web application interface. At the top, the browser address bar shows the URL `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`. The GeoNode header includes navigation menus for Data, Maps, Apps, and About, along with a search bar and an 'admin' user profile. The main map area shows a satellite view of Mumbai, India, with a large red polygon feature overlaid on the western part of the city. A search bar above the map is labeled 'Search by location name'. Below the map is a toolbar with icons for edit, pan, zoom, and other map functions. At the bottom, a panel titled 'Beat' shows a search input field with the placeholder text 'Type number or expression...' and a message 'No Features Available'. The footer of the page includes the text '© OpenStreetMap contributors.' and a scale indicator 'Scale: 1:72224'.

Click on “Add New Feature” Button

The screenshot displays the GeoNode web application interface. At the top, the browser address bar shows the URL `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`. The GeoNode logo and navigation menu (Data, Maps, Apps, About) are visible. A search bar and a user profile icon labeled 'admin' are on the right. The main map area shows a satellite view of Mumbai, India, with a large red-shaded area representing a feature layer. A search bar above the map is labeled 'Search by location name'. In the bottom left corner, a toolbar contains a red arrow pointing to a button with a plus sign and a layer icon, labeled 'Add New feature'. Below the map, a panel shows a search for 'fid' with the result 'No Features Available'. The bottom of the page includes a copyright notice for OpenStreetMap contributors and a scale indicator of 1:72224.

Start creating geometry

The screenshot displays the GeoNode web application interface. At the top, a browser window shows the URL `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`. The main navigation bar features the GeoNode logo, menu items for Data, Maps, Apps, and About, a search bar, and a user profile for 'admin'. The map area shows a satellite view of Mumbai, India, with a large red polygon overlaid on the western part of the city. A search box above the map prompts 'Search by location name'. Below the map is a toolbar with icons for editing, saving, and other functions. At the bottom, a feature list table is visible, with a red arrow pointing to the 'fid' column. The table currently displays 'No Features Available'. The footer includes the copyright notice '© OpenStreetMap contributors.' and a scale indicator 'Scale: 1:72224'.

Browser tabs: New Map - example.com

Browser address bar: `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`

GeoNode navigation: Data, Maps, Apps, About

Search bar: Search

User profile: admin

Map search: Search by location name

Map area: Mumbai, India (with red polygon overlay)

Toolbar: Cancel geometry creation, Edit, Save, Close, Full Screen

Feature list table:

fid
Type number or expression...
No Features Available

Footer: © OpenStreetMap contributors. Scale: 1:72224

Create beat polygon and save

The screenshot shows a web browser window displaying a GIS application. The browser's address bar shows the URL: `gis.communitygis.net/maps/new?layer=geonode:building_wise&view=True#`. The application header includes the GeoNode logo and navigation menus for Data, Maps, Apps, and About. A search bar is present with the text "Search by location name".

The main map area displays a street map with a yellow beat polygon overlaid. The polygon follows the path of "Jai Prakash Road" and "Sardar Road". Numerous red square markers are scattered across the map, representing individual buildings. Other visible features include "Bhavans Ground", "Bhavans Lake", and "Shiv Temple".

Below the map is a toolbar with various icons for editing and navigation. A panel labeled "Beat" is open, showing a table with one item:

fid
1

At the bottom of the page, there is a footer with the text "© OpenStreetMap contributors." and a scale indicator showing "Scale: 1:4514".

Thanks