

Tutorial: How to tag OpenStreetMap geometry

Gismo plugin heavily relies itself on extracting data from OpenStreetMap (OSM) database, the largest open map of the world.

OSM uses tags to add meaning to map objects. These tags are essentially attributes, and consist of pairs of data connected with “=” character.

For example, a residential building will be tagged as: **building=residential**

The height in meters of that building will be tagged as: **height=12**

The number of stories/floors of that building as: **building:levels=4**

The beauty of this is that, the tagging system is free, meaning that anyone with internet connection can add unlimited number of new tags to any OSM map geometries. Once added, they can instantly be used by users and services which extract information from OSM database, Gismo being one of them.

So let's say you already used Gismo plugin for certain location. But you noticed that Gismo is not able to generate a precise 3d building model for some building. Instead it created the 3d model of that building with random height.

You can improve the height of the 3d building in Gismo by adding a new **height=x** tag to that specific building. Or if you do not know its exact height, you can tag the number of stories/floor of that building.

This tutorial shows how to do that.

1) We first need to create a new OSM account.

Go to www.openstreetmap.org and in the upper right corner click on **Sign Up**

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Don't have an account? [Register now](#)

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Password:

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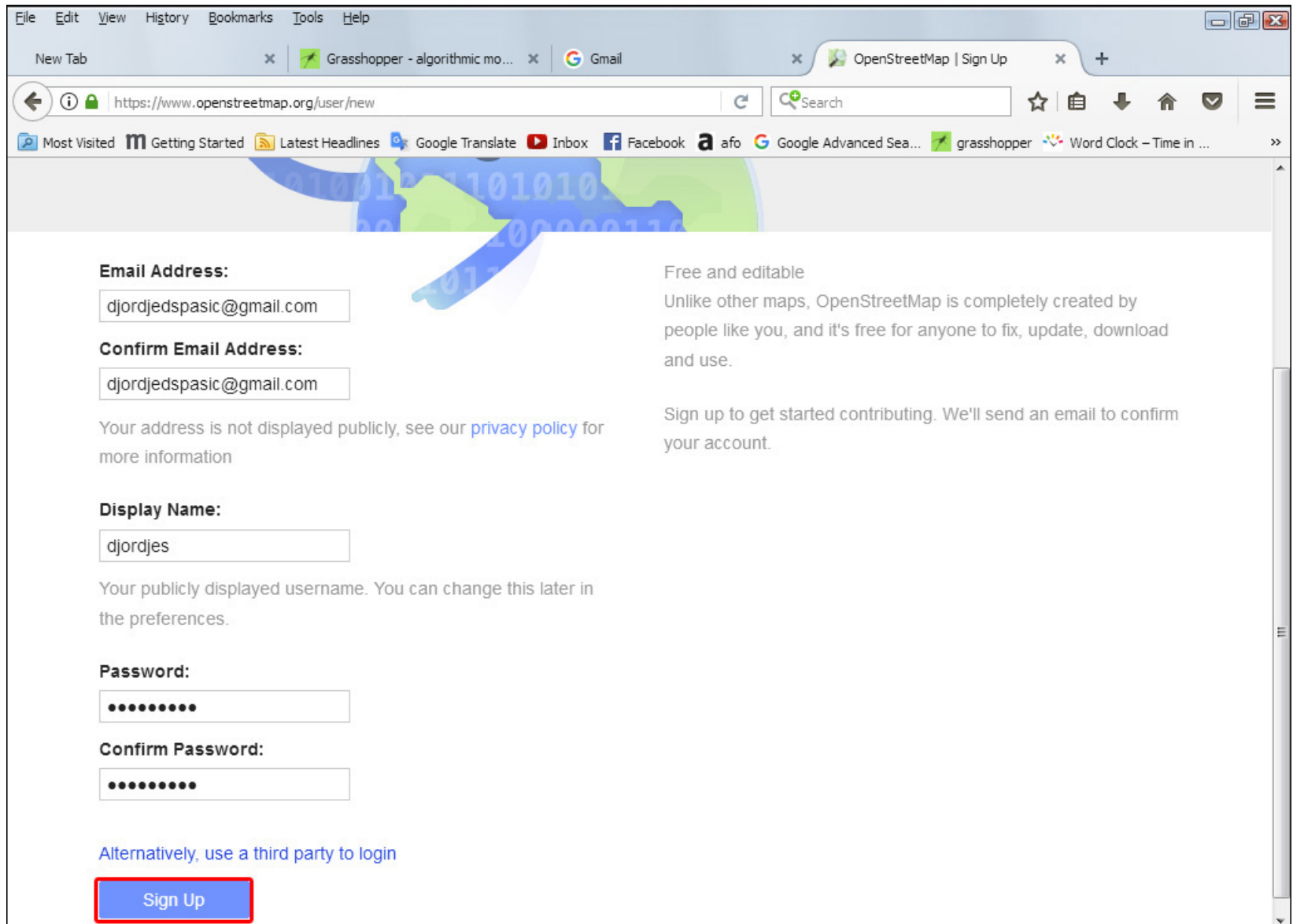
Login

Alternatively, use a third party to login:

☐ Remember me

2) Fill in all the necessary data, and again click on **Sign Up** at the very bottom of the page. You will receive an email confirmation to your email. Click on the confirmation link in that email to complete the registration. Once that happens, log in to your OSM account.



The screenshot shows a web browser window with the OpenStreetMap Sign Up page. The browser's address bar shows the URL <https://www.openstreetmap.org/user/new>. The page features a header with a map and binary code. The main content area contains several form fields for registration, including Email Address, Confirm Email Address, Display Name, Password, and Confirm Password. To the right of the form, there is a section titled "Free and editable" with descriptive text. At the bottom, there is a link for alternative login methods and a prominent "Sign Up" button highlighted with a red border.

Email Address:

Confirm Email Address:

Your address is not displayed publicly, see our [privacy policy](#) for more information

Display Name:

Your publicly displayed username. You can change this later in the preferences.

Password:

Confirm Password:

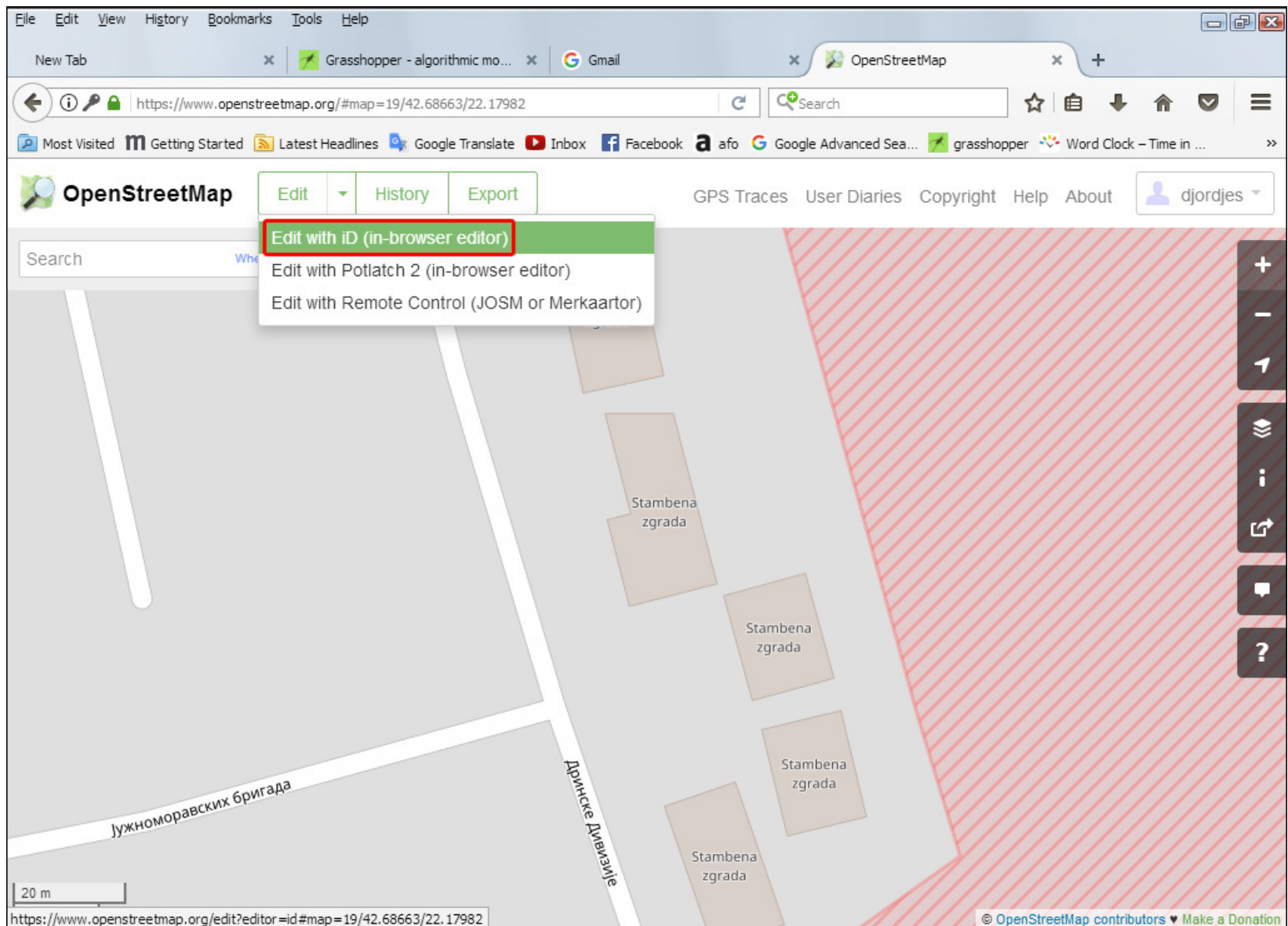
[Alternatively, use a third party to login](#)

Sign Up

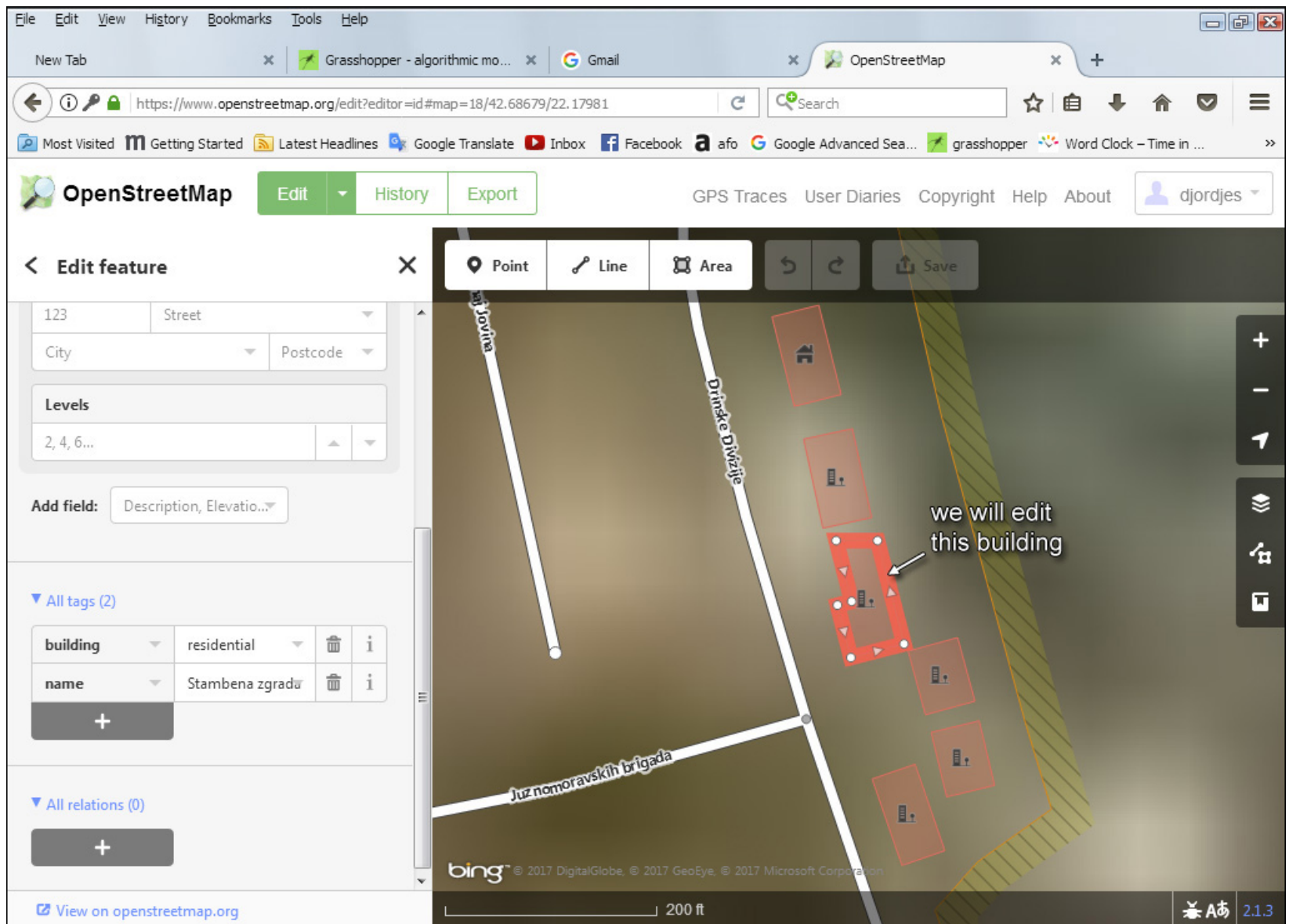
Free and editable
Unlike other maps, OpenStreetMap is completely created by people like you, and it's free for anyone to fix, update, download and use.

Sign up to get started contributing. We'll send an email to confirm your account.

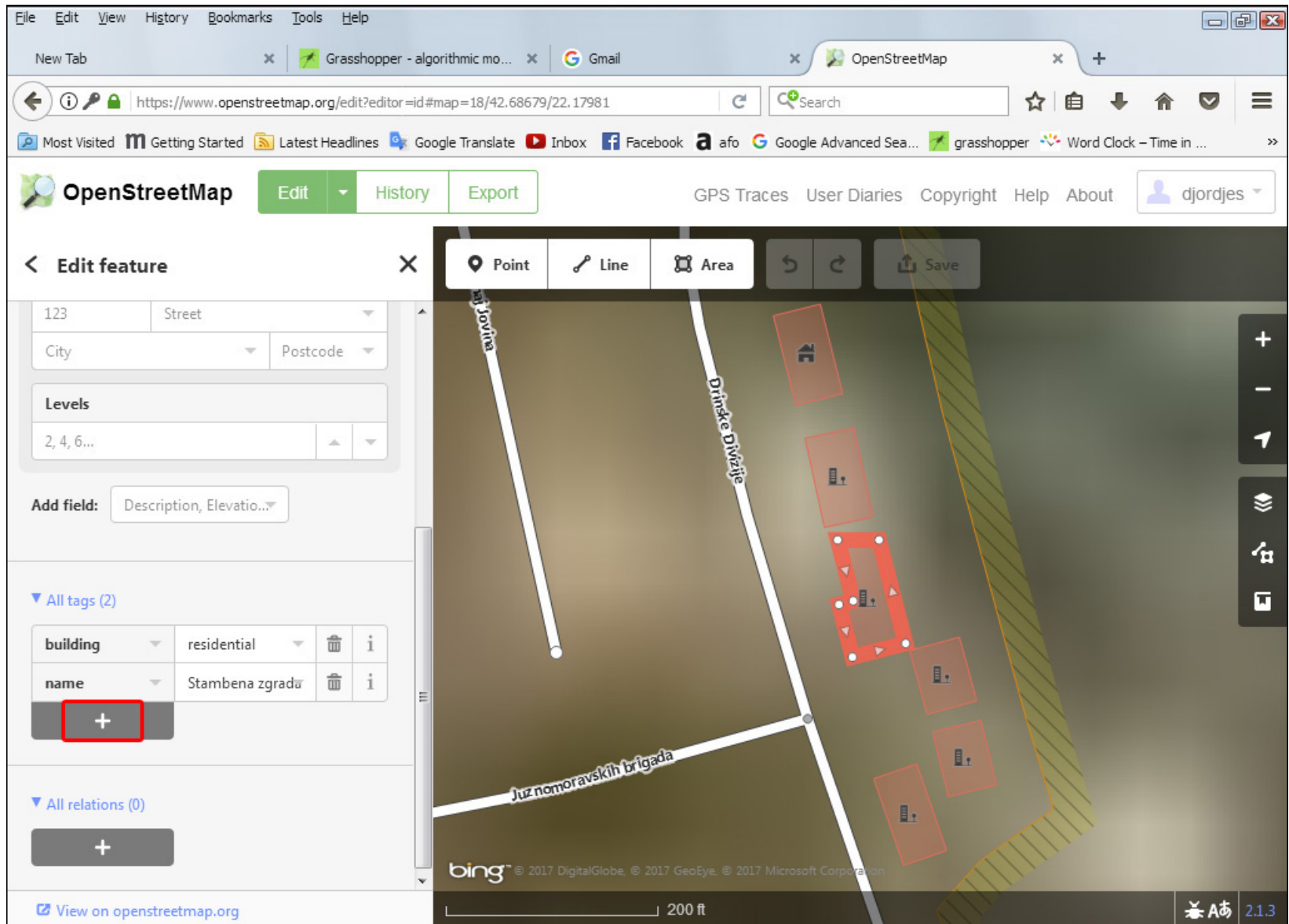
3) Zoom in to the geometry whose tags you would like to change. Then in the upper left corner click on:
Edit -> Edit with iD (in-browser editor)



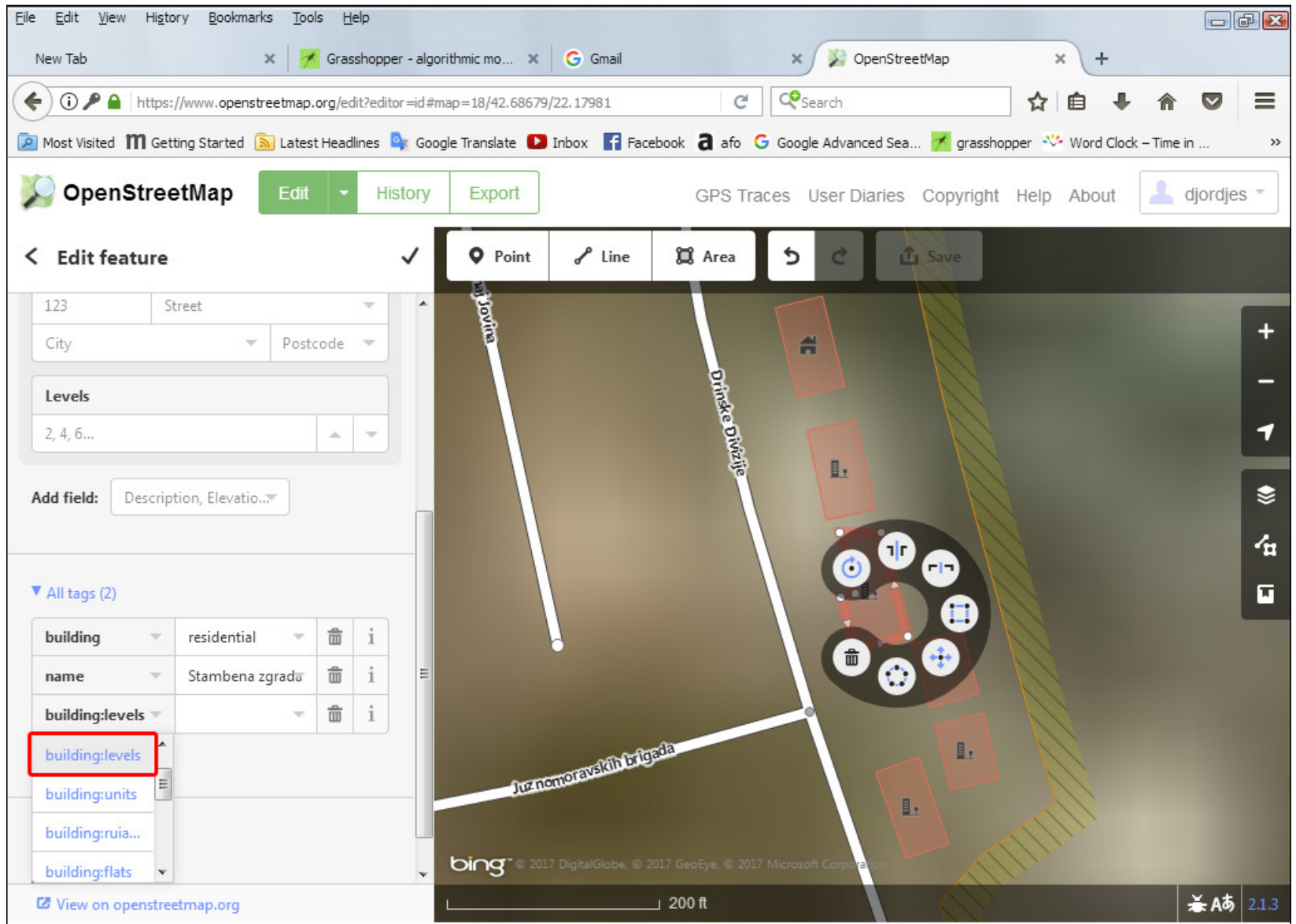
4) This will open the iD editor. It is one of the OSM data editors, and it is very simple. Select (left-click) on the building you would like to tag



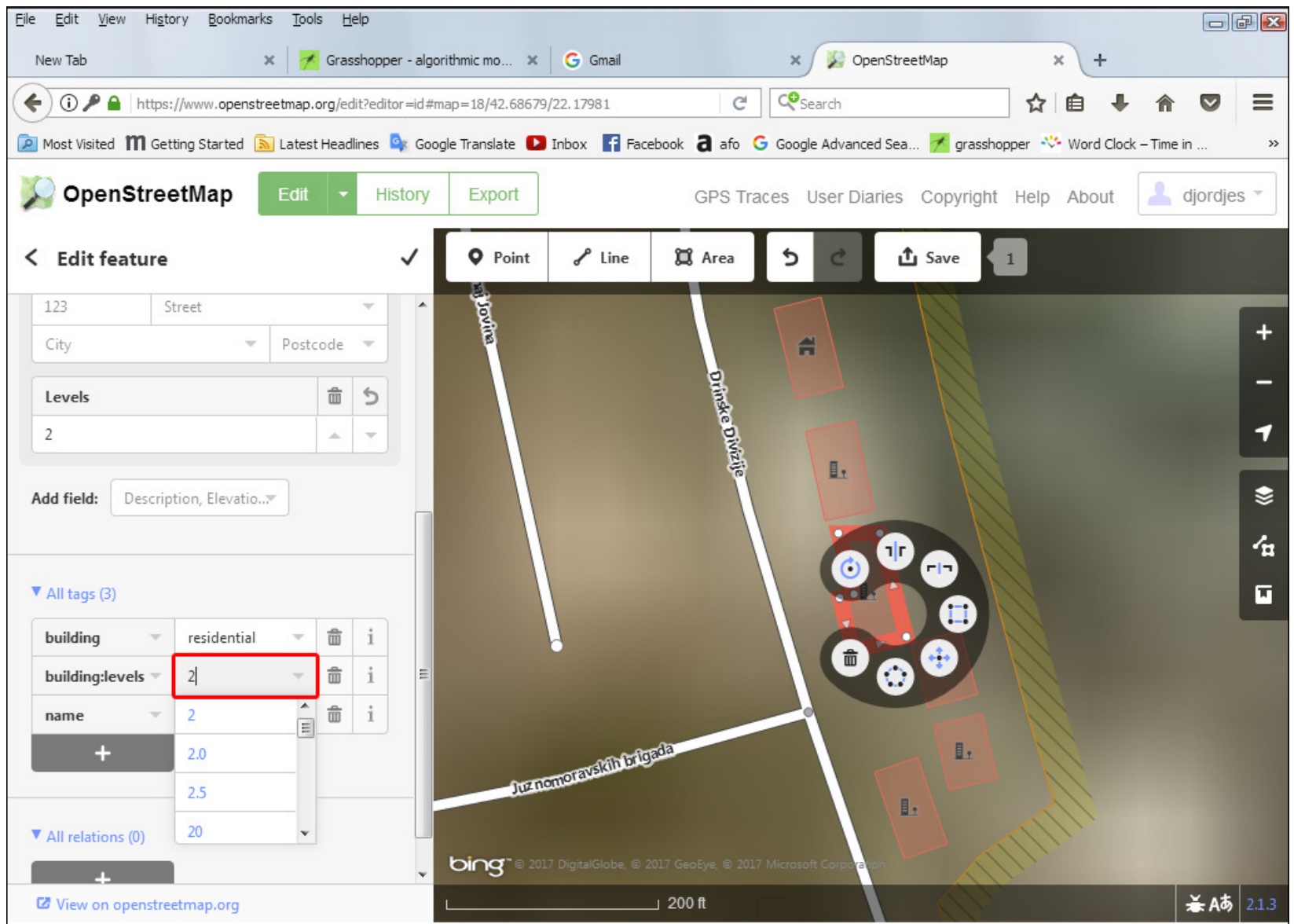
5) As we can see in the panel on the left, this building already has two tags: building=residential. And name=Stambena zgrada. To add a new tag, click on the “+” button



7) This will activate a dropdown list. Type the “building:levels” and press Enter on your keyboard

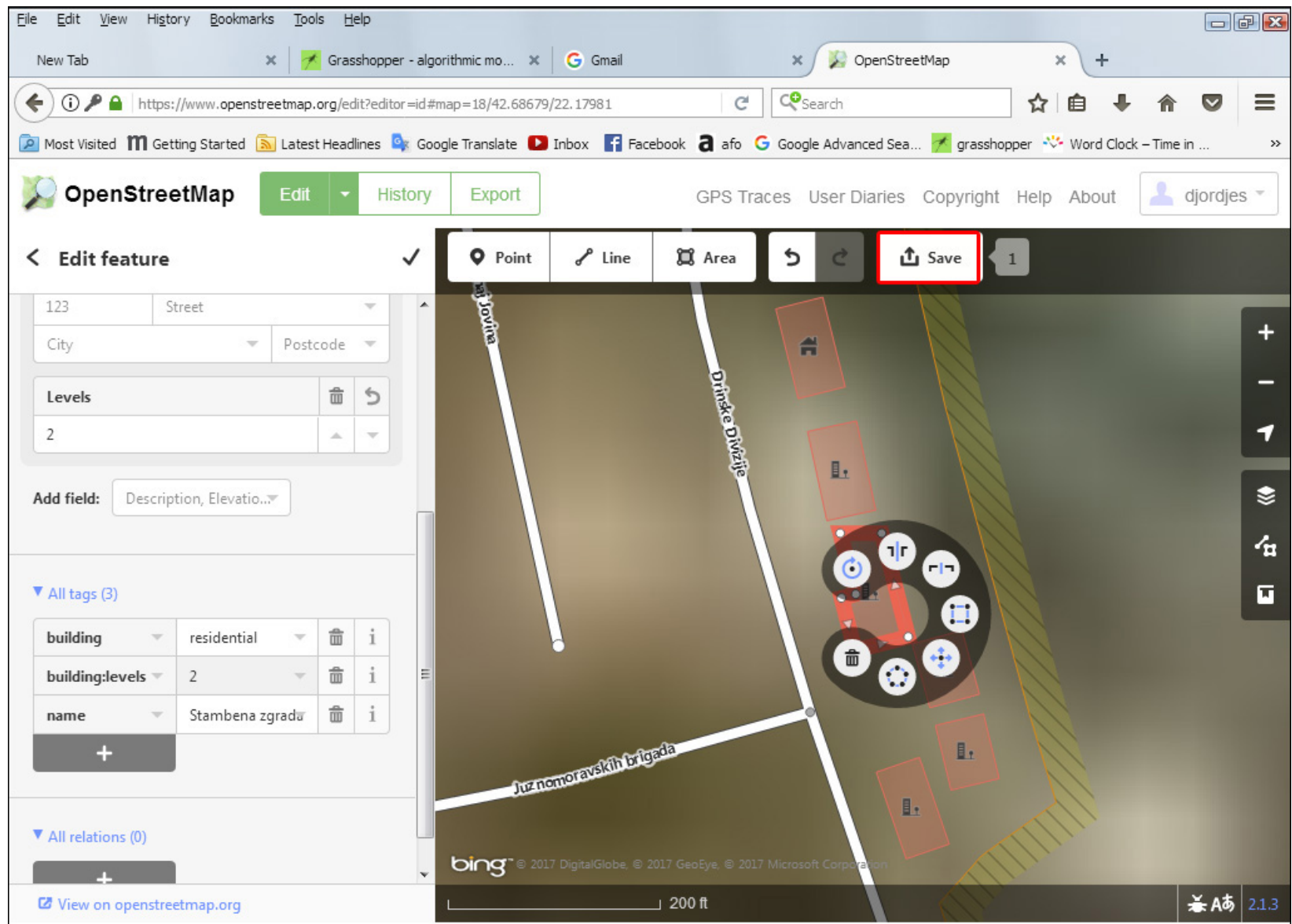


8) In the box next to it, type the number of stories/floor. For example, the screenshot below shows “2” stories typed.

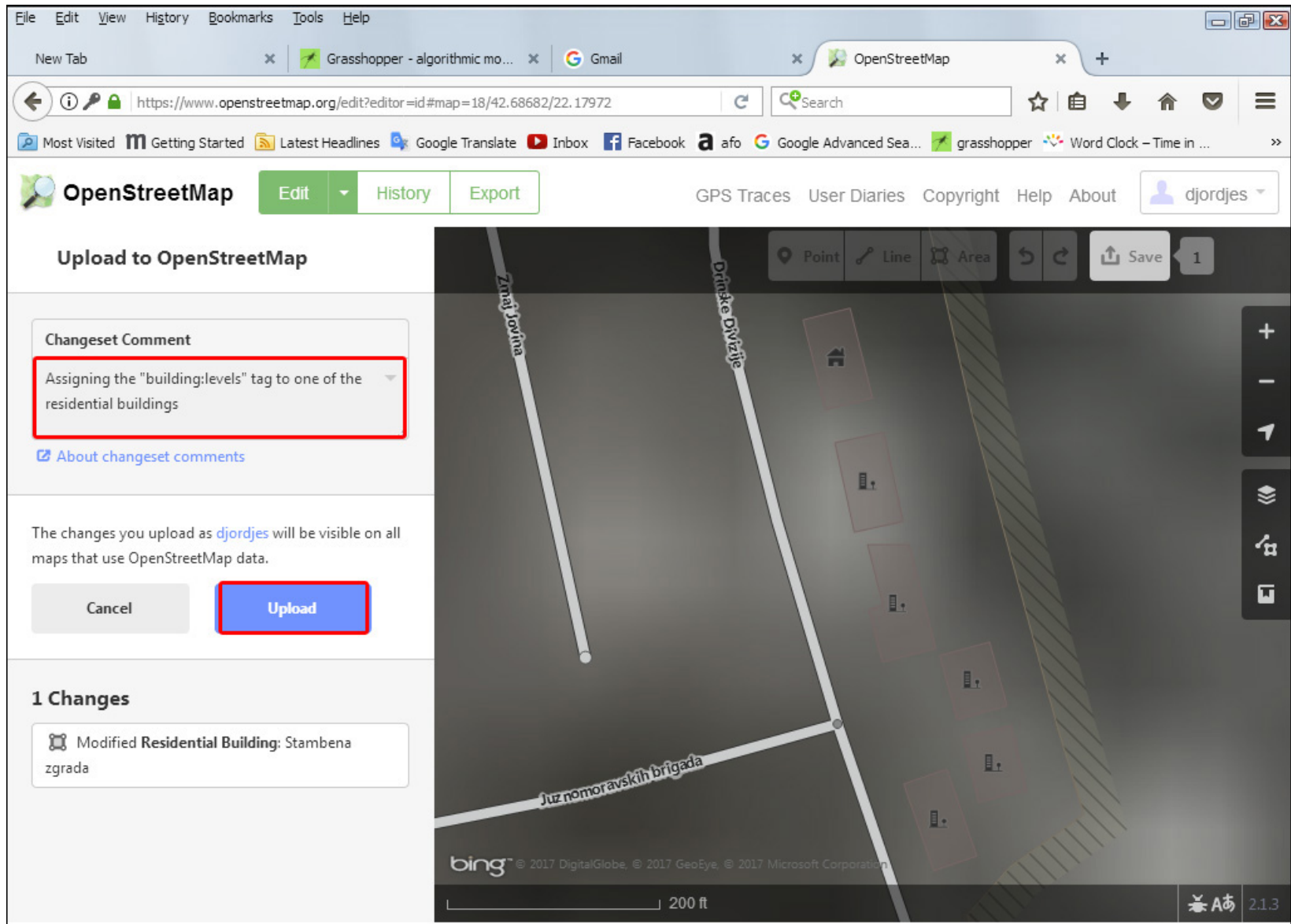


9) That is it!!!

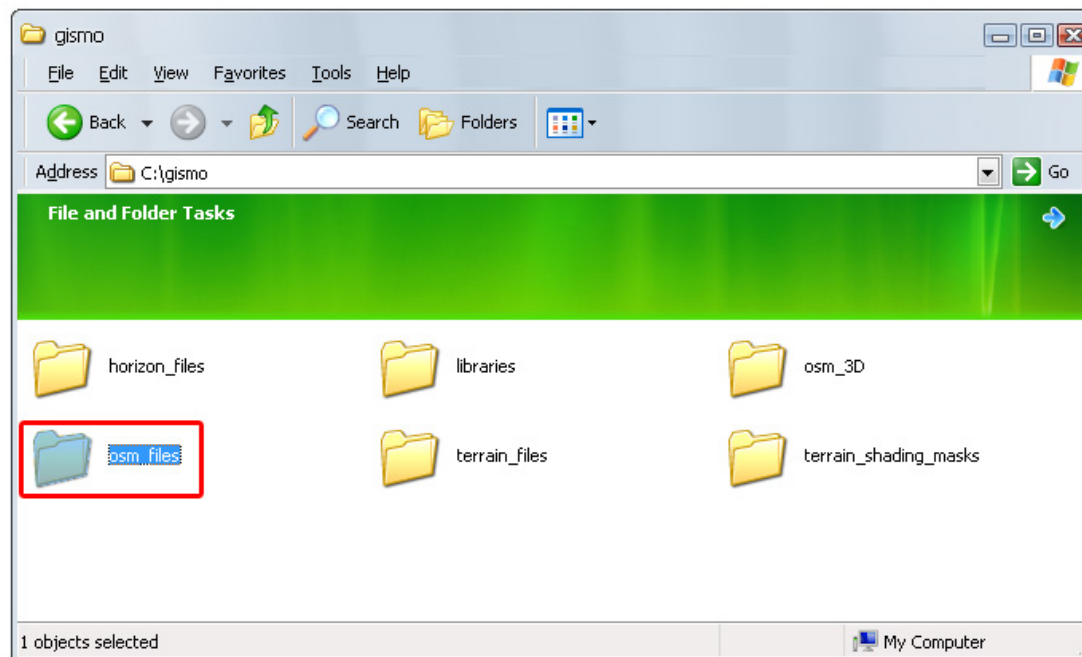
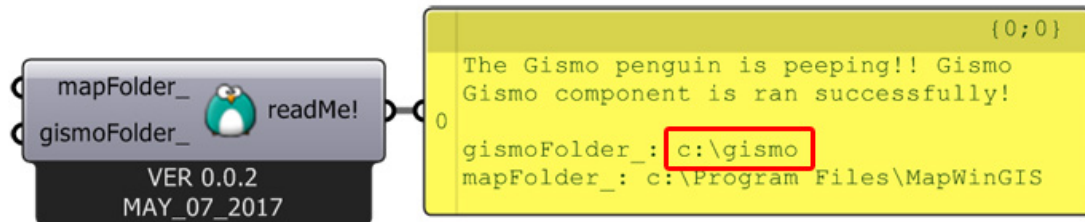
Now to validate your change, click on **Save** in the upper right corner



10) In the **Changeset Comment**, you can describe the change you've just made. Once you do that, click on **Upload** button. The **building:levels=4** tag you just added to this building is from now on, accessible to anyone who is using the Gismo plugin.



11) We just need to do two more things: Before we started with this tutorial, The Gismo plugin may already downloaded the old OSM data, which does not include the newest change we made a couple of seconds ago. So to make sure that Gismo will include our newest change, we need to delete the whole `gismo\osm_files` folder. To find our `gismo` folder, we check the `readMe!` output of the `Gismo Gismo` component:



12) Now we just need to rerun the definition which we opened before the start of this tutorial. To do that, in Grasshopper choose: Solution -> Recompute. This will download the new OSM data, which includes the building:levels=2 tag we added. Gismo will now use that tag to generate 2 floors building.

