

Leaflet Web Maps with qgis2leaf

QGIS Tutorials and Tips



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Leaflet Web Maps with qgis2leaf

Warning

qgis2leaf plugin is no longer in active development. The functionality of this plugin is folded into a new plugin called **qgis2web**.

See [Web Mapping with QGIS2Web](#) tutorial for an updated version of this tutorial.

Leaflet is a popular open-source Javascript library for building web mapping applications. **qgis2leaf** plugin provides a simple way to export your QGIS map to a functioning leaflet-based web map. This plugin is a useful way to get started with web mapping and create an interactive web map from your static GIS data layers.

Overview of the task

We will create a leaflet web map of world's airports.

Other skills you will learn

- Using CASE SQL statement in Field Calculator to create new field values based on different conditions.
- Locating and using SVG custom icons in QGIS.

Get the data

We will use the [Airports](#) dataset from Natural Earth.

[Download the Airports shapefile.](#)

Data Source [NATURALEARTH]

Procedure

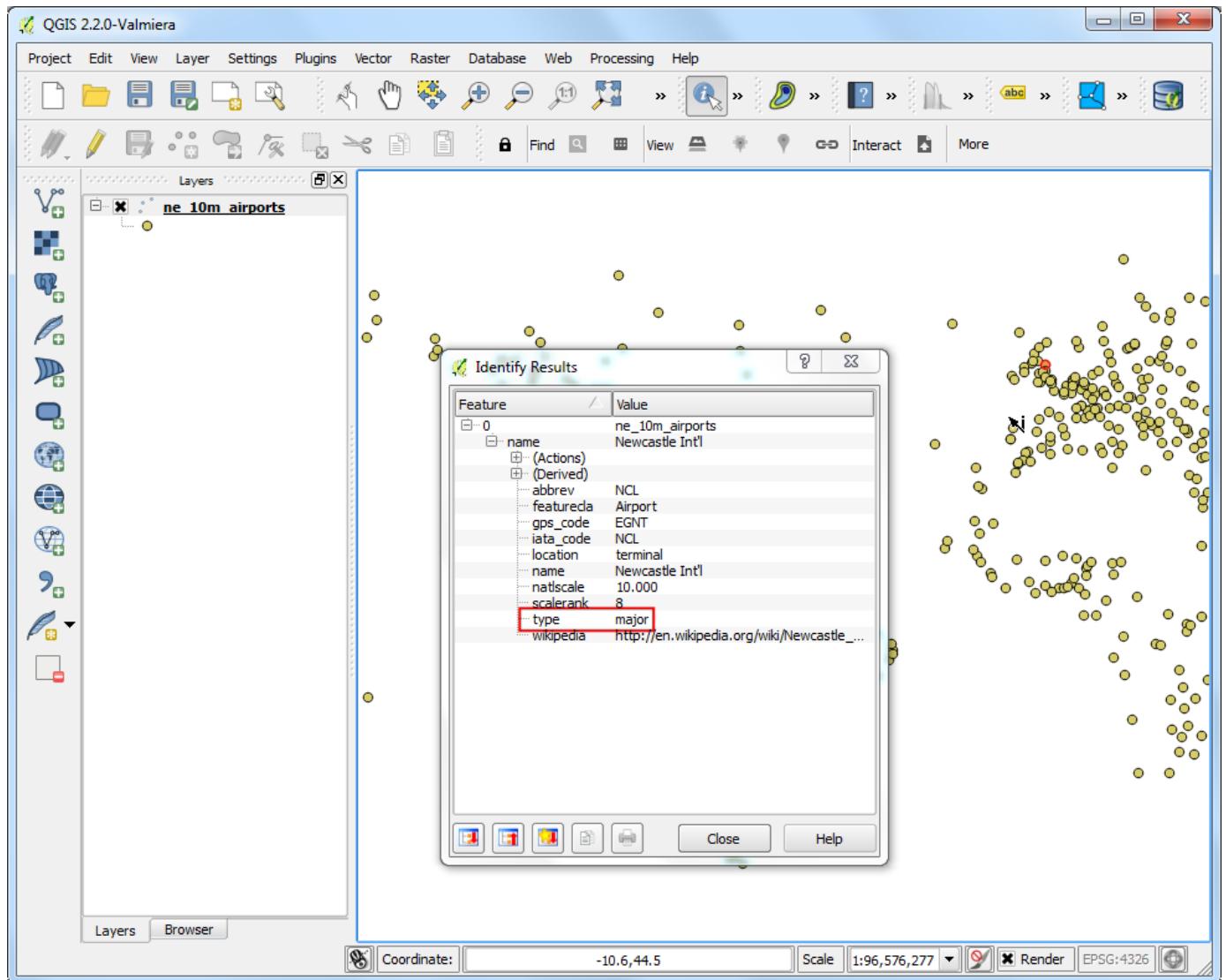
1. Install the `qgis2leaf` plugin by going to Plugins > Manage and Install Plugin. Note that the plugin is currently marked **experimental**, so you will need to check Show also experimental plugins in Plugin Settings. (See [Using Plugins](#) for more details on installing plugins in QGIS)



2. Unzip the downloaded `ne_10m_airports.zip` file. Open QGIS and go to Layer ▶ Add Vector Layer. Browse to the location when the files were extracted and select `ne_10m_airports.shp`. Click OK.



3. Once the `ne_10m_airports` layer is loaded, use the Identify tool to click on any feature and look at the attributes. We will create an airport map where we classify the airports into 3 categories. The attribute type will be useful when classifying the features.



4. Right-click the `ne_10m_airports` layer and select Open Attribute Table.



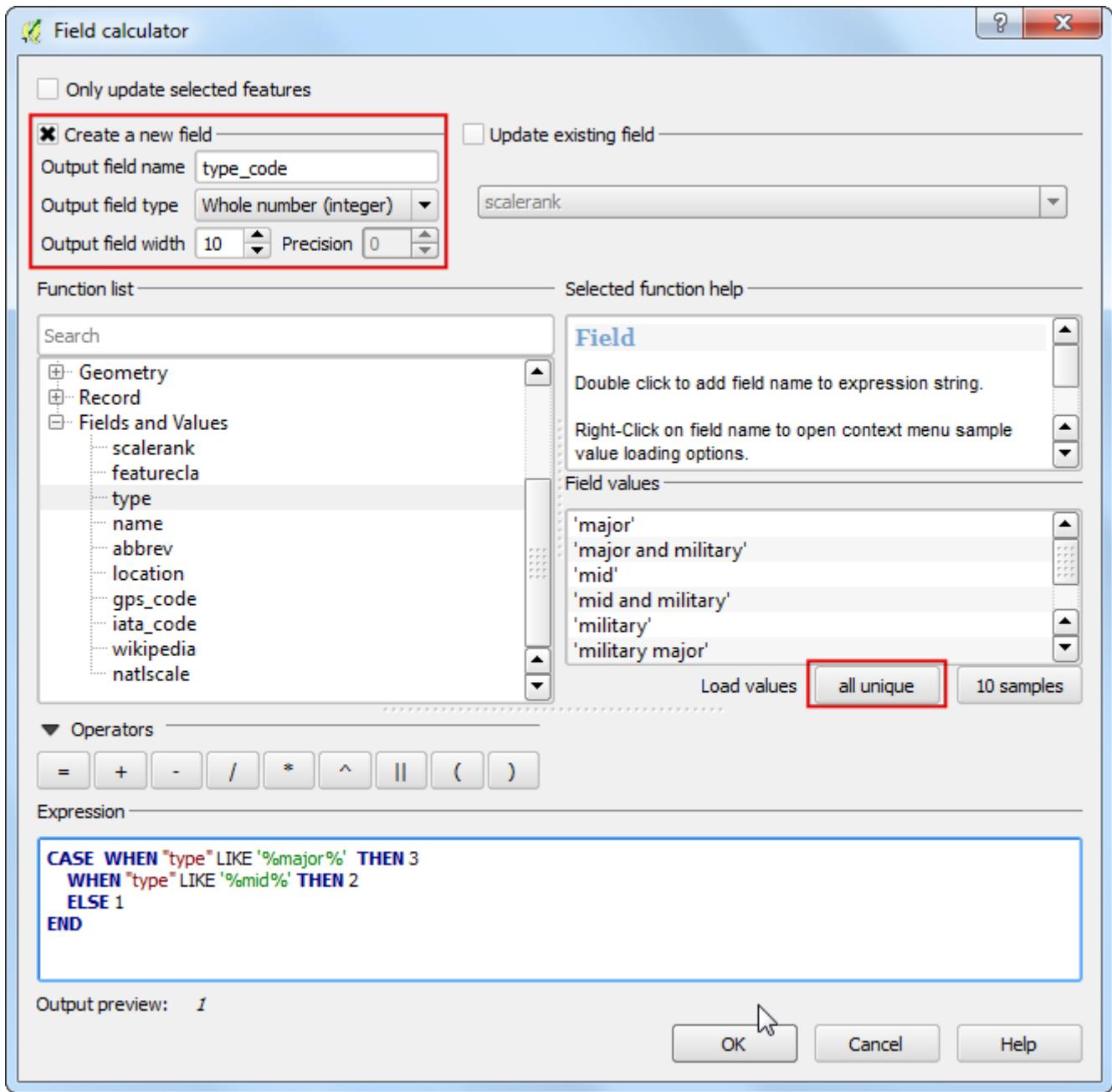
5. In the attribute table dialog, click the Toggle Editing button. Once the layer is in editing mode, click the Open Field Calculator button.

The screenshot shows a QGIS attribute table for the layer 'ne_10m_airports'. The table has 49 rows and 10 columns. The columns are: scalarank, featuredfa, type, name, Open field calculator (Ctrl+I) (button), gps_code, iata_code, and wiki (button). The 'Open field calculator' button is highlighted with a red circle. The 'wiki' button is also circled in red. The 'Show All Features' button at the bottom left is also circled in red.

| | scalarank | featuredfa | type | name | Open field calculator (Ctrl+I) | gps_code | iata_code | wiki |
|----|-----------|------------|------------------|----------------------|--------------------------------|----------|-----------|-------------|
| 27 | 9 | Airport | mid and military | Gwangju | KWJ | terminal | RKJJ | http://e... |
| 28 | 9 | Airport | mid | Daegu Int'l | TAE | terminal | RKTN | http://e... |
| 29 | 9 | Airport | mid | Ulsan | USN | terminal | RKPU | http://e... |
| 30 | 9 | Airport | mid | Radin Inten II | WIIT | terminal | WIAT | http://e... |
| 31 | 9 | Airport | military | Allahabad | IXD | ramp | VIAL | http://e... |
| 32 | 9 | Airport | mid | Chelyabinsk | CEK | terminal | USCC | http://e... |
| 33 | 8 | Airport | military mid | Tainan | TNN | ramp | RCNN | http://e... |
| 34 | 8 | Airport | military mid | Taichung | RMQ | ramp | RCMQ | http://e... |
| 35 | 8 | Airport | mid | Rotterdam The H... | RTM | terminal | EHRD | http://e... |
| 36 | 8 | Airport | mid | Voronezh-Cherto... | VOZ | terminal | UUOO | http://e... |
| 37 | 8 | Airport | major | Liverpool John Le... | LPL | ramp | EGGP | http://e... |
| 38 | 8 | Airport | mid | Vishakapatnam | VTZ | terminal | VEVZ | http://e... |
| 39 | 8 | Airport | major | Sultan Hasanuddi... | UPG | terminal | WAAA | http://e... |
| 40 | 8 | Airport | mid | Vava'u Int'l | VAV | terminal | NFTV | http://e... |
| 41 | 8 | Airport | major | Newcastle Int'l | NCL | terminal | EGNT | http://e... |
| 42 | 8 | Airport | mid | Goloson Int'l | LCE | terminal | MHLC | http://e... |
| 43 | 8 | Airport | major | Madinah Int'l | MED | terminal | OEMA | http://e... |
| 44 | 8 | Airport | mid | Mirabel Int'l | YMX | terminal | CYMX | http://e... |
| 45 | 8 | Airport | mid | Palanga Int'l | PLQ | terminal | EYPA | http://e... |
| 46 | 8 | Airport | mid | Jaipur Int'l | JAI | terminal | VIJP | http://e... |
| 47 | 8 | Airport | mid | Sonari | IXW | terminal | VEJS | http://e... |
| 48 | 8 | Airport | mid | Yenisehir | YEI | ramp | LTBR | http://e... |
| 49 | 8 | Airport | major | Sakirpasa | ADA | terminal | LTAF | http://e... |

6. We want to create a new attribute called `type_code` where we give major airports a value of 3, mid-sized airports a value of 2 and all others a value of 1. We can use the `CASE` statement and write an expression that will look at the value of `type` attribute and create a `type_code` attribute based on the condition. Check the Create a new field box and enter `type_code` as the Output field name. Select Whole number (integer) as the Output field type. In the Expression window, enter the following text.

```
CASE WHEN "type" LIKE '%major%' THEN 3
      WHEN "type" LIKE '%mid%' THEN 2
      ELSE 1
END
```



7. Back in the Attribute Table window, you will see a new column at the end. Verify that your expression worked correctly and click the Toggle Editing button to save the changes.

Attribute table - ne_10m_airports :: Features total: 891, filtered: 891, selected: 0

| | name | abbrev | location | gps_code | iata_code | wikipedia | natscale | type_code |
|-----|-----------------------|--------|----------|----------|-----------|----------------------|----------|-----------|
| 448 | Aba Tenna D. Yil... | DIR | terminal | HADR | DIR | http://en.wikiped... | 20.000 | 2 |
| 21 | Abdul Rachman S... | MLG | ramp | WARA | MLG | http://en.wikiped... | 8.000 | 2 |
| 626 | Abidjan Port Bouet | ABJ | terminal | DIAP | ABJ | http://en.wikiped... | 50.000 | 2 |
| 554 | Abu Dhabi Int'l | AUH | terminal | OMAA | AUH | http://en.wikiped... | 20.000 | 3 |
| 565 | Abuja Int'l | ABV | terminal | DNAA | ABV | http://en.wikiped... | 30.000 | 3 |
| 193 | Achmad Yani | SRG | terminal | WARS | SRG | http://en.wikiped... | 10.000 | 2 |
| 23 | Adampur | VIAX | runway | VIAX | NULL | NULL | 8.000 | 2 |
| 631 | Adelaide Int'l | ADL | terminal | YPAD | ADL | http://en.wikiped... | 50.000 | 2 |
| 333 | Aden Adde Int'l | MGQ | runway | HCMM | MGQ | http://en.wikiped... | 15.000 | 2 |
| 630 | Aden Int'l | ADE | terminal | OYAA | ADE | http://en.wikiped... | 50.000 | 2 |
| 417 | Adnan Menderes | ADB | terminal | LTBJ | ADB | http://en.wikiped... | 20.000 | 3 |
| 378 | Aeroport Tunis | TUN | terminal | DTTA | TUN | http://en.wikiped... | 15.000 | 3 |
| 805 | Aeroportul Natio... | BBU | terminal | LRBS | BBU | http://en.wikiped... | 75.000 | 2 |
| 784 | Afonso Pena Int'l | CWB | terminal | SBCT | CWB | http://en.wikiped... | 50.000 | 2 |
| 271 | military | AGR | runway | VIAG | AGR | http://en.wikiped... | 10.000 | 3 |
| 3 | Ahwaz | AWZ | terminal | OIAW | AWZ | http://en.wikiped... | 8.000 | 2 |
| 529 | Albany Int'l | ALB | terminal | KALB | ALB | http://en.wikiped... | 20.000 | 2 |
| 290 | Albenga | ALL | ramp | LIMG | ALL | http://en.wikiped... | 15.000 | 2 |
| 423 | Albuquerque Int'l | ABQ | terminal | KABQ | ABQ | http://en.wikiped... | 20.000 | 3 |
| 634 | Aleppo Int'l | ALP | terminal | OSAP | ALP | http://en.wikiped... | 50.000 | 3 |
| 659 | Alfonso Bonilla Ar... | CLO | terminal | SKCL | CLO | http://en.wikiped... | 50.000 | 2 |
| 261 | Alicante | ALC | terminal | LEAL | ALC | http://en.wikiped... | 10.000 | 3 |
| 52 | Alice Springs | ASP | terminal | YBAS | ASP | http://en.wikiped... | 10.000 | 2 |

8. Now we will style the airports layer using the newly created `type_code` attribute. Right-click the `ne_10m_airports` layer and select Properties.



9. Select the Style tab in the Layer Properties dialog. Select Categorized style from the drop-down menu and choose `type_code` as the Column. Choose a color ramp of your choice and click Classify. Click OK to go back to the main QGIS window.



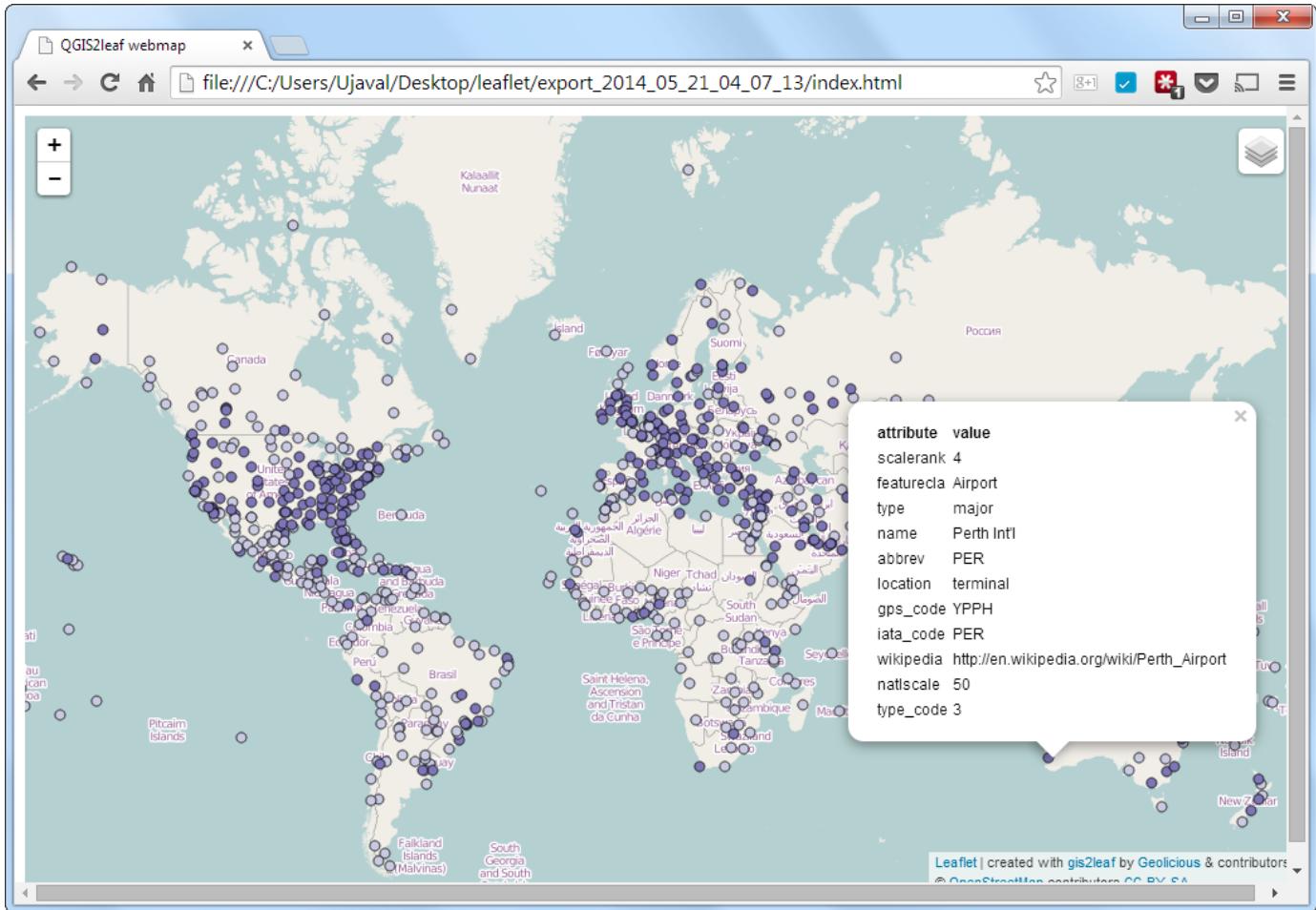
10. Here you will see a nicely styled airport map. Let's export this to create an interactive web map. Go to Web > qgis2leaf > Exports a QGIS Project to a working leaflet webmap.



11. In the QGIS 2 Leaflet dialog, click Get Layers to get the refreshed layer list. Select the Full screen option to have a full screen web map. Choose layer extent as the Extent of the exported map. Choose a Output project folder on your system where the plugin will write the output files. Click OK.



12. Once the export process finishes, locate the output folder on your disk. Open the `index.html` file in a browser. You will see an interactive web map that is a replica of the QGIS map. You can zoom and pan around the map and also click on any feature to get an popup window with attribute information. You can copy the contents of this folder to a web server to have a full featured web map.



13. Now we will explore some advanced features of this plugin that will allow you to customize the map further. If you noticed, the popup contained all the attributes of the feature. Some attributes are not very useful and overall the pop up looks ugly. We can replace the default popup with our own custom HTML to make it much better. This is achieved by added the custom HTML in a column named `html_exp`. Right-click the `ne_10m_airports` layer and select Open Attribute Table.



14. In the attribute table dialog, click the Toggle Editing button. Once the layer is in editing mode, click the Open Field Calculator button.

| | scalarank | featuredfa | type | name | gps_code | iata_code | wiki |
|----|-----------|------------|--------------------|----------------------|----------|-----------|------|
| 0 | 9 | Airport | small | Sahnewal | LUH | terminal | VILD |
| 1 | 9 | Airport | mid | Solapur | SSE | terminal | VASL |
| 2 | 9 | Airport | mid | Birsra Munda | IXR | terminal | VERC |
| 3 | 9 | Airport | mid | Ahwaz | AWZ | terminal | OIAW |
| 4 | 9 | Airport | mid and military | Gwalior | GWL | terminal | VIGR |
| 5 | 9 | Airport | mid | Hodeidah Int'l | HOD | terminal | OYHD |
| 6 | 9 | Airport | mid | Devi Ahilyabai Ho... | IDR | terminal | VAID |
| 7 | 9 | Airport | mid | Gandhinagar | ISK | ramp | VANR |
| 8 | 9 | Airport | major and military | Chandigarh Int'l | IXC | terminal | VICG |
| 9 | 9 | Airport | mid | Aurangabad | IXU | terminal | VAAU |
| 10 | 9 | Airport | mid and military | Faisalabad Int'l | LYP | terminal | OPFA |
| 11 | 9 | Airport | mid | Omsk Tsentralny | OMS | terminal | UNOO |
| 12 | 9 | Airport | mid | Novosibirsk Tolm... | OVB | terminal | UNNT |
| 13 | 9 | Airport | mid and military | Zaporozhye Int'l | OZH | runway | UKDE |
| 14 | 9 | Airport | mid | Simpang Tiga | PKU | terminal | WIBB |
| 15 | 9 | Airport | mid | Rota Int'l | ROP | terminal | PGRO |
| 16 | 9 | Airport | mid | Surgut | SGC | terminal | USRR |
| 17 | 9 | Airport | mid | Tiruchirappalli | TRZ | terminal | VOTR |
| 18 | 9 | Airport | mid | Turbat Int'l | TUK | terminal | OPTU |
| 19 | 9 | Airport | mid | Quetta Int'l | UET | terminal | OPQT |
| 20 | 9 | Airport | mid | Zahedan Int'l | ZAH | terminal | OIZH |
| 21 | 9 | Airport | mid and military | Abdul Rachman S... | MLG | ramp | WARA |
| 22 | 9 | Airport | mid | Barnaul | BAX | ramp | UNBB |

15. Check the Create a new field box and enter `html_exp` as the Output field name. Choose Text (string) as the Output field type. Since we will be creating a long HTML string, choose 200 as the Output field width. Enter the following expression in the Expression area. The complex-looking expression simply defines a HTML table and substitutes cell values from attributes `iata_code`, `name` and `type`. Check the Output preview to ensure the expression is correct.

```
concat('<h3>', "iata_code", '</h3><table>', '<tr><td>Airport Name: <b> ',  
"name", '</b></td></tr><tr><td>Category: <b> ', "type",  
'</b></td></tr></table>')
```

Note

The shapefile format can contain a maximum of 254 characters in a field. If you want to store longer text in the field, choose another format.



16. Back in the Attribute Table window, you will see a new column at the end. Verify that your expression worked correctly and click the Toggle Editing button to save the changes.

Attribute table - ne_10m_airports :: Features total: 891, filtered: 891, selected: 0

| | location | gps_code | iata_code | wikipedia | natscale | type_code | html_exp |
|----|-----------|----------|-----------|-----------|----------------------|-----------|-------------------|
| 0 | LUH | terminal | VILD | LUH | http://en.wikiped... | 8.000 | 1 <h3>LUH</h3>... |
| 1 | SSE | terminal | VASL | SSE | http://en.wikiped... | 8.000 | 2 <h3>SSE</h3>... |
| 2 | IXR | terminal | VERC | IXR | http://en.wikiped... | 8.000 | 2 <h3>IXR</h3>... |
| 3 | AWZ | terminal | OIAW | AWZ | http://en.wikiped... | 8.000 | 2 <h3>AWZ</h3>... |
| 4 | GWL | terminal | VIGR | GWL | http://en.wikiped... | 8.000 | 2 <h3>GWL</h3>... |
| 5 | Int'l | terminal | OYHD | HOD | http://en.wikiped... | 8.000 | 2 <h3>HOD</h3>... |
| 6 | bai Ho... | terminal | VAID | IDR | http://en.wikiped... | 8.000 | 2 <h3>IDR</h3>... |
| 7 | ISK | ramp | VANR | ISK | http://en.wikiped... | 8.000 | 2 <h3>ISK</h3>... |
| 8 | Int'l | terminal | VICG | IXC | http://en.wikiped... | 8.000 | 3 <h3>IXC</h3>... |
| 9 | IXU | terminal | VAAU | IXU | http://en.wikiped... | 8.000 | 2 <h3>IXU</h3>... |
| 10 | Int'l | terminal | OPFA | LYP | http://en.wikiped... | 8.000 | 2 <h3>LYP</h3>... |
| 11 | ralny | terminal | UNOO | OMS | http://en.wikiped... | 8.000 | 2 <h3>OMS</h3>... |
| 12 | Tolm... | terminal | UNNT | OVB | http://en.wikiped... | 8.000 | 2 <h3>OVB</h3>... |
| 13 | Int'l | runway | UKDE | OZH | http://en.wikiped... | 8.000 | 2 <h3>OZH</h3>... |
| 14 | PKU | terminal | WIBB | PKU | http://en.wikiped... | 8.000 | 2 <h3>PKU</h3>... |
| 15 | ROP | terminal | PGRO | ROP | http://en.wikiped... | 8.000 | 2 <h3>ROP</h3>... |
| 16 | SGC | terminal | USR | SGC | http://en.wikiped... | 8.000 | 2 <h3>SGC</h3>... |
| 17 | alli | terminal | VOTR | TRZ | http://en.wikiped... | 8.000 | 2 <h3>TRZ</h3>... |
| 18 | TUK | terminal | OPTU | TUK | http://en.wikiped... | 8.000 | 2 <h3>TUK</h3>... |
| 19 | UET | terminal | OPQT | UET | http://en.wikiped... | 8.000 | 2 <h3>UET</h3>... |
| 20 | ZAH | terminal | OIZH | ZAH | http://en.wikiped... | 8.000 | 2 <h3>ZAH</h3>... |
| 21 | man S... | ramp | WARA | MLG | http://en.wikiped... | 8.000 | 2 <h3>MLG</h3>... |
| 22 | BAX | ramp | UNBB | BAX | http://en.wikiped... | 8.000 | 2 <h3>BAX</h3>... |

17. Now export the map again using Web ▶ qgis2leaf ▶ Exports a QGIS Project to a working leaflet webmap.



18. Choose the options as before.



19. Go to the output folder once the export process finishes. You will have a subfolder with the present timestamp. Locate the index.html file inside it and open it in a browser. Click on any feature and look at the popup. You will notice that it looks a lot cleaner and informative.



20. Another useful feature of the `qgis2leaf` plugin is the ability to specify a custom icon to use with the web map. This is accomplished by specifying the path to the custom icon in a field called `icon_exp`. We will create a new layer containing only the major airports and style using a custom SVG icon. Locate the Select features using an expression tool from the toolbar.



21. Enter the expression below and press Select to select all major airports.

```
"type_code" = 3
```



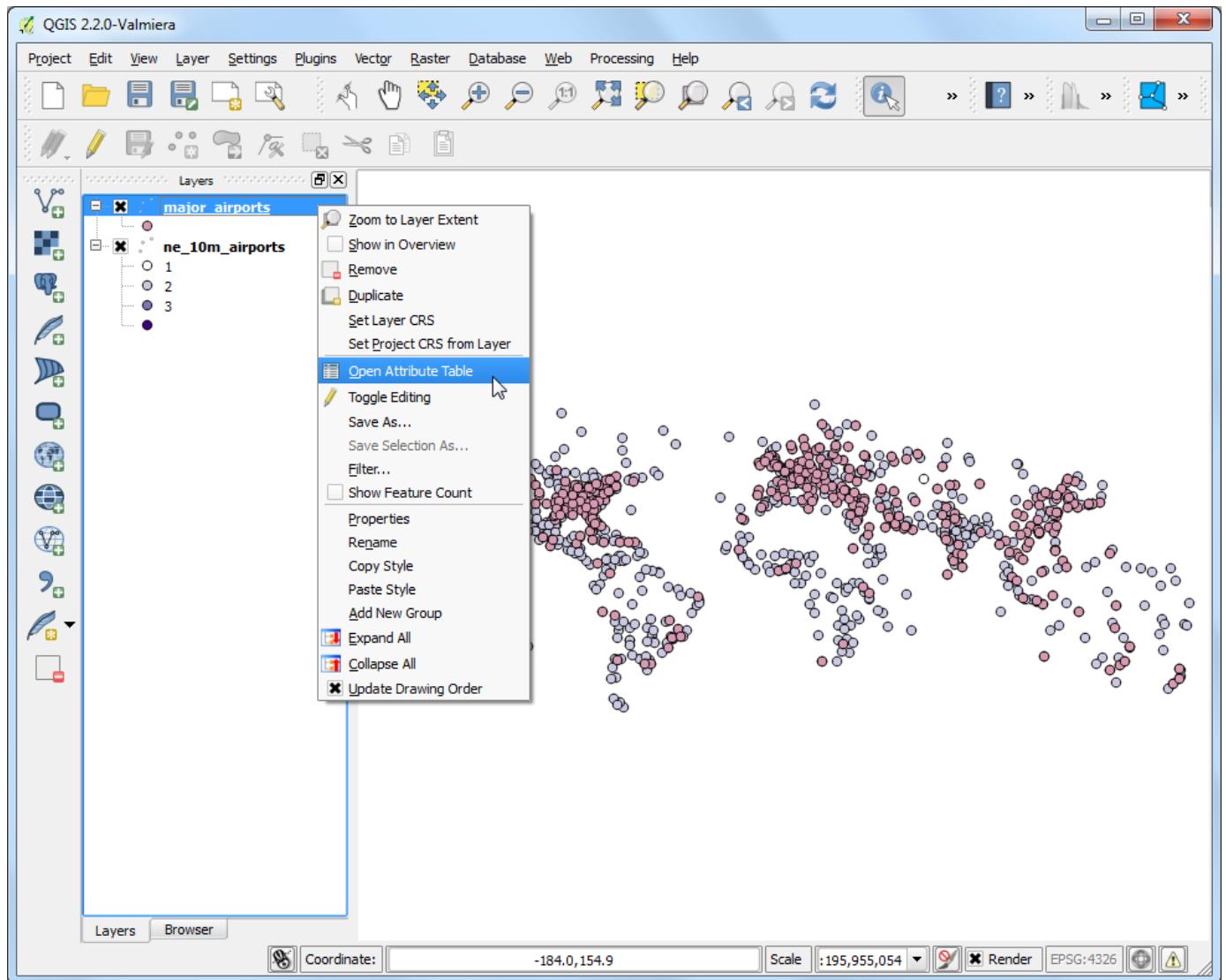
22. Right-click the `ne_10m_airports` airports and select Save Selection As....



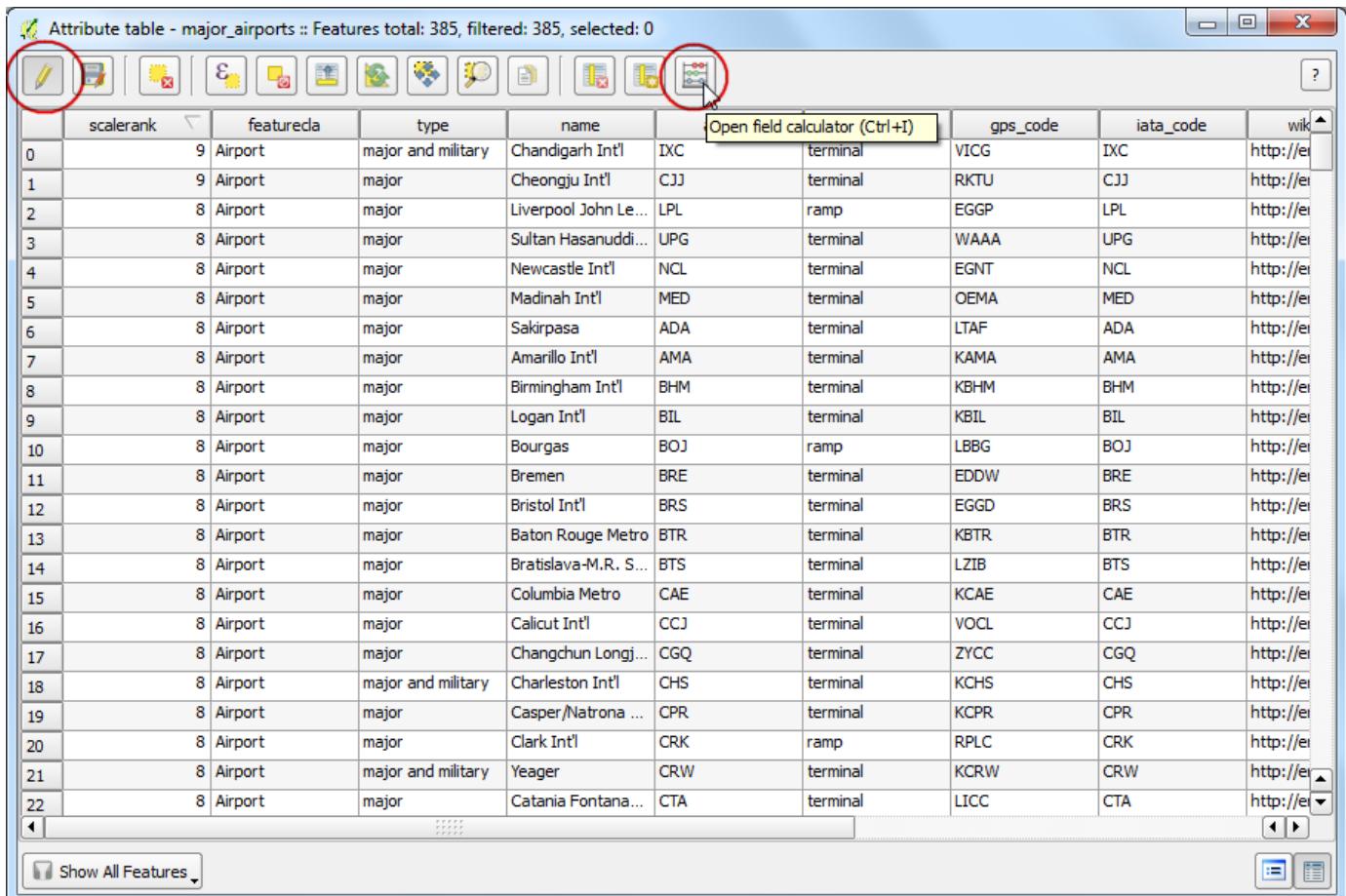
23. In the Save vector layer as... dialog, name the output file as major_airports.shp. Check the Add saved file to map and click OK.



24. Once the `major_airports` layer is loaded in QGIS, right-click it and select Open Attribute Table.



25. In the attribute table dialog, click the Toggle Editing button. Once the layer is in editing mode, click the Open Field Calculator button.



Attribute table - major_airports :: Features total: 385, filtered: 385, selected: 0

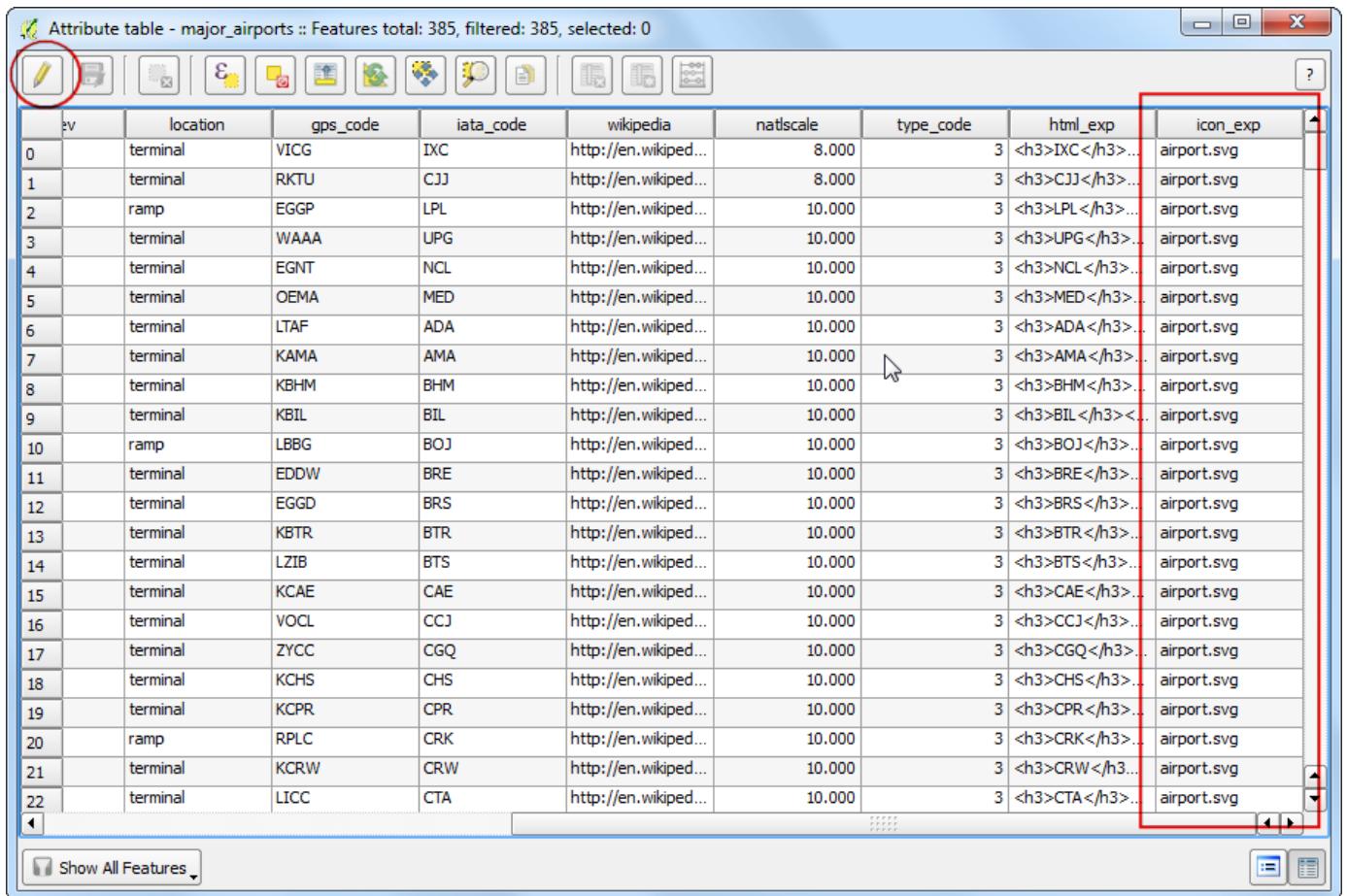
| | scalerank | featurecla | type | name | | Open field calculator (Ctrl+I) | gps_code | iata_code | wik |
|----|-----------|------------|--------------------|----------------------|-----|--------------------------------|----------|-----------|----------|
| 0 | 9 | Airport | major and military | Chandigarh Int'l | IXC | terminal | VICG | IXC | http://e |
| 1 | 9 | Airport | major | Cheongju Int'l | CJJ | terminal | RKTU | CJJ | http://e |
| 2 | 8 | Airport | major | Liverpool John Le... | LPL | ramp | EGGP | LPL | http://e |
| 3 | 8 | Airport | major | Sultan Hasanuddi... | UPG | terminal | WAAA | UPG | http://e |
| 4 | 8 | Airport | major | Newcastle Int'l | NCL | terminal | EGNT | NCL | http://e |
| 5 | 8 | Airport | major | Madinah Int'l | MED | terminal | OEMA | MED | http://e |
| 6 | 8 | Airport | major | Sakirpasa | ADA | terminal | LTAF | ADA | http://e |
| 7 | 8 | Airport | major | Amarillo Int'l | AMA | terminal | KAMA | AMA | http://e |
| 8 | 8 | Airport | major | Birmingham Int'l | BHM | terminal | KBHM | BHM | http://e |
| 9 | 8 | Airport | major | Logan Int'l | BIL | terminal | KBIL | BIL | http://e |
| 10 | 8 | Airport | major | Bourgas | BOJ | ramp | LBBG | BOJ | http://e |
| 11 | 8 | Airport | major | Bremen | BRE | terminal | EDDW | BRE | http://e |
| 12 | 8 | Airport | major | Bristol Int'l | BRS | terminal | EGGD | BRS | http://e |
| 13 | 8 | Airport | major | Baton Rouge Metro | BTR | terminal | KBTR | BTR | http://e |
| 14 | 8 | Airport | major | Bratislava-M.R. S... | BTS | terminal | LZIB | BTS | http://e |
| 15 | 8 | Airport | major | Columbia Metro | CAE | terminal | KCAE | CAE | http://e |
| 16 | 8 | Airport | major | Calicut Int'l | CCJ | terminal | VOCL | CCJ | http://e |
| 17 | 8 | Airport | major | Changchun Longj... | CGQ | terminal | ZYCC | CGQ | http://e |
| 18 | 8 | Airport | major and military | Charleston Int'l | CHS | terminal | KCHS | CHS | http://e |
| 19 | 8 | Airport | major | Casper/Natrona ... | CPR | terminal | KCPR | CPR | http://e |
| 20 | 8 | Airport | major | Clark Int'l | CRK | ramp | RPLC | CRK | http://e |
| 21 | 8 | Airport | major and military | Yeager | CRW | terminal | KCRW | CRW | http://e |
| 22 | 8 | Airport | major | Catania Fontana... | CTA | terminal | LICC | CTA | http://e |

26. In Field Calculator dialog, enter `icon_exp` as the Output field name. Make it a Text (string) type. In the Expression area, enter the following expression.

```
'airport.svg'
```



27. Save your edits by clicking the Toggle Editing button in the Attribute Table.



Attribute table - major_airports :: Features total: 385, filtered: 385, selected: 0

| id | location | gps_code | iata_code | wikipedia | natscale | type_code | html_exp | icon_exp |
|----|----------|----------|-----------|----------------------|----------|-----------|------------------|-------------|
| 0 | terminal | VICG | IXC | http://en.wikiped... | 8.000 | 3 | <h3>IXC</h3>... | airport.svg |
| 1 | terminal | RKTU | CJJ | http://en.wikiped... | 8.000 | 3 | <h3>CJJ</h3>... | airport.svg |
| 2 | ramp | EGGP | LPL | http://en.wikiped... | 10.000 | 3 | <h3>LPL</h3>... | airport.svg |
| 3 | terminal | WAAA | UPG | http://en.wikiped... | 10.000 | 3 | <h3>UPG</h3>... | airport.svg |
| 4 | terminal | EGNT | NCL | http://en.wikiped... | 10.000 | 3 | <h3>NCL</h3>... | airport.svg |
| 5 | terminal | OEMA | MED | http://en.wikiped... | 10.000 | 3 | <h3>MED</h3>... | airport.svg |
| 6 | terminal | LTAF | ADA | http://en.wikiped... | 10.000 | 3 | <h3>ADA</h3>... | airport.svg |
| 7 | terminal | KAMA | AMA | http://en.wikiped... | 10.000 | 3 | <h3>AMA</h3>... | airport.svg |
| 8 | terminal | KBHM | BHM | http://en.wikiped... | 10.000 | 3 | <h3>BHM</h3>... | airport.svg |
| 9 | terminal | KBIL | BIL | http://en.wikiped... | 10.000 | 3 | <h3>BIL</h3><... | airport.svg |
| 10 | ramp | LBBG | BOJ | http://en.wikiped... | 10.000 | 3 | <h3>BOJ</h3>... | airport.svg |
| 11 | terminal | EDDW | BRE | http://en.wikiped... | 10.000 | 3 | <h3>BRE</h3>... | airport.svg |
| 12 | terminal | EGGD | BRS | http://en.wikiped... | 10.000 | 3 | <h3>BRS</h3>... | airport.svg |
| 13 | terminal | KBTR | BTR | http://en.wikiped... | 10.000 | 3 | <h3>BTR</h3>... | airport.svg |
| 14 | terminal | LZIB | BTS | http://en.wikiped... | 10.000 | 3 | <h3>BTS</h3>... | airport.svg |
| 15 | terminal | KCAE | CAE | http://en.wikiped... | 10.000 | 3 | <h3>CAE</h3>... | airport.svg |
| 16 | terminal | VOCL | CCJ | http://en.wikiped... | 10.000 | 3 | <h3>CCJ</h3>... | airport.svg |
| 17 | terminal | ZYCC | CGQ | http://en.wikiped... | 10.000 | 3 | <h3>CGQ</h3>... | airport.svg |
| 18 | terminal | KCHS | CHS | http://en.wikiped... | 10.000 | 3 | <h3>CHS</h3>... | airport.svg |
| 19 | terminal | KCPR | CPR | http://en.wikiped... | 10.000 | 3 | <h3>CPR</h3>... | airport.svg |
| 20 | ramp | RPLC | CRK | http://en.wikiped... | 10.000 | 3 | <h3>CRK</h3>... | airport.svg |
| 21 | terminal | KCRW | CRW | http://en.wikiped... | 10.000 | 3 | <h3>CRW</h3>... | airport.svg |
| 22 | terminal | LICC | CTA | http://en.wikiped... | 10.000 | 3 | <h3>CTA</h3>... | airport.svg |

28. Open the `qgis2leaf` plugin from Web ▶ `qgis2leaf` ▶ Exports a QGIS Project to a working leaflet webmap. Click Get Layers button to fetch both the layers from QGIS. There are many different pre-made tile layers available for basemaps. In this map, we can try something different and load the Stamen Watercolor as the Basemap. Click OK.



29. If you remember we specified `airport.svg` as the icon for the airports. We need to add that icon manually to the output directory. QGIS comes with a large collection of icons. On Windows, these icons are located at `C:\OSGEO4W64\apps\qgis\svg`. The path may differ depending on your platform and install type. Locate that directory and choose an icon you like. For our map, we can try the `amenity=airport.svg` icon located under `transport` category.



30. Copy and paste this icon in the output directory you had specified when exporting the map. Rename it as `airport.svg`.



31. Now open the `index.html` file located in the folder. You will see a beautiful basemap with our custom icons for the major airports. Also notice the layer panel at top-right corner which has layer display control for both the layers.

