

**SERVICIO
GEOLÓGICO
COLOMBIANO**



SGC

ConsultaSQL

Rutina realizada para realizar consulta a la base de datos. (Se puede hacer simple, por id o radial).
Revisar las instrucciones.

```

al_date=20191201 000000,final_date=20191202 000000,min_mag=0,max_mag=8,min_prof=-5,max_prof
tude,depth,radio,magnitude,rms,depth_uncertainty,latitude_uncertainty,longitude_uncertainty
43,6.59,-73.18,10.0,24.28,1.34,10.30676792,,,"San Gil - Santander, Colombia",not locatabl
53,6.46,-73.77,102.47,76.38,1.18,0.22,2.2,0.9899494937,0.9899494937,"Landázuri - Santander
50,6.79,-73.2,141.33,4.46,1.83,0.39,3.0,1.838477631,1.838477631,"Zapatoca - Santander, Co
57,6.78,-73.18,142.21,3.76,1.86,0.67,3.5,2.687005769,2.687005769,"Los Santos - Santander,
02,6.81,-73.18,141.71,0.88,1.8,0.22,1.6,0.9899494937,0.9899494937,"Los Santos - Santander,
32,6.8,-73.18,147.86,1.25,1.58,0.31,2.7,1.697056275,1.697056275,"Los Santos - Santander, C
44,7.41,-73.19,132.87,66.39,1.49,0.39,3.6,2.474873734,2.474873734,"Rionegro - Santander, C
20,6.81,-73.16,141.41,1.49,2.36,0.47,1.4,1.13137085,1.13137085,"Los Santos - Santander, Co
54,6.82,-73.17,146.94,1.5,2.35,0.39,1.4,1.060660172,1.060660172,"Los Santos - Santander, C
02,6.82,-73.12,151.86,5.78,2.62,0.71,2.0,1.414213562,1.414213562,"Los Santos - Santander,
7:34,6.82,-73.15,143.56,2.64,2.4,0.49,1.5,1.13137085,1.13137085,"Los Santos - Santander, Co
1:30,6.8,-73.16,146.98,1.51,2.03,0.54,2.2,1.555634919,1.555634919,"Los Santos - Santander,
9:41,6.81,-73.14,152.72,2.91,1.87,0.42,2.0,1.767766953,1.767766953,"Los Santos - Santander,
9:12,6.68,-73.6,105.73,49.41,0.93,0.01,0.3,0.1414213562,0.1414213562,"El Carmen - Santander
2:00,6.83,-73.16,144.23,3.08,3.04,0.64,1.6,1.272792206,1.272792206,"Los Santos - Santander,
9:20,6.83,-73.14,144.0,4.28,1.93,0.41,1.9,1.343502884,1.343502884,"Los Santos - Santander,
9:09,6.82,-73.19,146.05,2.44,1.51,0.19,1.3,1.060660172,1.060660172,"Zapatoca - Santander, C
8:40,6.8,-73.12,151.0,5.86,1.64,0.42,1.8,1.414213562,1.414213562,"Los Santos - Santander, C
8:05,6.81,-73.18,138.17,1.3,2.75,0.46,1.3,0.9899494937,0.9899494937,"Los Santos - Santander
1:13,6.8,-73.15,150.52,2.44,1.62,0.28,1.6,1.202081528,1.202081528,"Los Santos - Santander,
5:44,6.8,-73.14,144.49,4.08,1.67,0.3,1.8,1.48492424,1.48492424,"Los Santos - Santander, Col
8:15,6.8,-73.11,144.25,7.25,1.34,0.11,1.3,1.13137085,1.13137085,"Los Santos - Santander, Co
5:34,6.81,-73.19,139.74,2.52,1.45,0.27,2.3,1.697056275,1.697056275,"Zapatoca - Santander, C
1:16,6.8,-73.12,146.53,5.72,2.14,0.52,2.1,1.626345597,1.626345597,"Los Santos - Santander,
1:27,6.77,-73.21,143.5,6.22,1.28,0.25,2.3,1.48492424,1.48492424,"Zapatoca - Santander, Colo
2:20,6.79,-73.42,126.05,28.18,1.34,0.28,1.8,1.060660172,1.060660172,"San Vicente de Chucurí
8:55,6.77,-73.14,139.87,6.09,1.53,0.15,1.0,0.8485281374,0.8485281374,"Los Santos - Santande
8:18,7.42,-73.21,139.01,67.88,1.2,0.34,2.2,2.404163056,2.404163056,"Rionegro - Santander, C
9:58,6.83,-73.15,145.84,2.6,2.56,0.42,1.3,1.060660172,1.060660172,"Los Santos - Santander,
2:57,6.8,-73.16,141.77,2.17,1.71,0.31,1.9,1.697056275,1.697056275,"Los Santos - Santander,
2:48,6.82,-73.19,144.59,2.2,1.75,0.15,1.2,0.9899494937,0.9899494937,"Zapatoca - Santander,
5:17,6.8,-73.16,142.68,1.76,1.58,0.2,1.4,1.202081528,1.202081528,"Los Santos - Santander, C
9:52,6.0,-72.82,-0.46,97.88,1.27,0.19,6.9,4.596194078,4.596194078,"Belén - Boyacá, Colombia
8:47,6.19,-73.85,100.41,101.91,1.4,0.38,3.3,1.555634919,1.555634919,"Landázuri - Santander,
9:27,6.84,-73.17,147.26,3.1,2.66,0.51,1.6,1.13137085,1.13137085,"Los Santos - Santander, Co

```

OUT

1. Instalación en linux

- Requerimientos previos

Se corre en sistemas linux.

- Python

Python Versión 3.7 en adelante. (Usaremos como ejemplo python 3.8)

```
sudo apt-get install python3.7 (o 3.8)
```

Tener virtualenv en python.

```
python3.7 -m pip install virtualenv
```

Instalación con pip

```
python3.7 -m virtualenv .query  
source .query/bin/activate  
pip install -r requirements.txt
```

Instalación con pip

```
conda env create -f enviroment.yml  
conda activate php_query
```

Instrucciones de uso

En los archivos '.ipynb' se muestra como usarlo en otros códigos. Si necesita correrlo en consola puede ver los siguientes ejemplos

Comandos

```
+h, ++help          show this help message and exit  
  
REQUERIDOS:  
+m , ++mode         picks o events  
+s , ++start        Fecha inicial en formato 'yyyymmddThhmmss'  
+e , ++end          Fecha final en formato 'yyyymmddThhmmss'  
+m_mag , ++min_mag  Magnitud mínima  
+M_mag , ++max_mag  Magnitud máxima  
+m_prof , ++min_prof Profundidad mínima  
+M_prof , ++max_prof Profundidad máxima  
+o , ++out          csv format  
  
OPCIONALES:  
+et [ ...], ++event_type [ ...] earthquake not_locatable explosion volcanic_eruption
```

```
+sta [ ...], ++station_list [ ...] BAR2 RUS PTB
+id [ ...], ++id [ ...] SGC2019xqwwuh SGC2019xpcvv
+r [ ...], ++radial [ ...] Se debe especificar: lat lon r. Ejemplo: 6.81 -73.17 120
+mysqldb [ ...], ++mysqldb [ ...] Se debe especificar: host user passwd db.
Ejemplo: 10.100.100.232 consulta consulta seiscomp3
```

Ejemplos

Picks

- simple

```
python run_query.py +m picks +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof
```

- simple: servidor 13

```
python run_query.py +m picks +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof
```

- id

```
python run_query.py +m picks +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof
```

-radial

```
python run_query.py +m picks +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof -5 +M_p
```

Events

- simple

```
python run_query.py +m events +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof
```

- id

```
python run_query.py +m events +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof
```

-radial

```
python run_query.py +m events +s 20191201T000000 +e 20191202T000000 +m_mag 0 +M_mag 8 +m_prof -5 +M_p
```

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