



SCHEMATIC PUBLIC TRANSPORTATION MAPS

GEOSPATIAL DATABASES - PROJECT

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TASK 1

- Set up “GSDBOMM” database using PostgreSQL
- Extended it with PostGIS
- Import data from Portugal

List of relations			
Schema	Name	Type	Owner
public	planet_osm_line	table	postgres
public	planet_osm_line_tmp	table	postgres
public	planet_osm_nodes	table	postgres

topology	layer	table	postgres
topology	topology	table	postgres
(49 rows)			

postgres=# \l						
List of databases						
Name	Owner	Encoding	Collate	Ctype	Access privileges	
GSDBOMM	postgres	UTF8	en_US.UTF-8	en_US.UTF-8		
postgres	postgres	UTF8	en_US.UTF-8	en_US.UTF-8		



TASK 2

- Javascript
- NPM
- Overpass API

```
[out:json];
(
  node["station"]="subway" (38.699223, -9.226499, 38.797711, -9.084250);
  relation["route"]="subway" (38.699223, -9.226499, 38.797711, -9.084250);
);
out body;
>;
out skel qt;
```

- *lisbon-metro-original.json*
- Nodes = Information about subway stations
- Relations = Information about lines and how stations are linked



TASK 2

- `npm run process-data`
- ***lisbon-metro-formatted.json***
 - Stations
 - Id
 - Name
 - Label
 - Position
 - Lines
 - Name
 - Color
 - Nodes
 - Name
 - Label Position
 - Coordinates

```
},  
"Alvalade": {  
  "id": 256971869,  
  "name": "Alvalade",  
  "label": "Alvalade",  
  "position": {  
    "lat": 38.753034,  
    "lon": -9.1439777  
  }  
},
```

station

line

```
"name": "Verde",  
"color": "#2F9B9C",  
"shiftCoords": [0, 0],  
"nodes": [  
  {  
    "coords": [39, 21],  
    "labelPos": "E",  
    "name": "Alvalade"  
  },
```

```
{  
  "coords": [39, 21],  
  "labelPos": "E",  
  "name": "Alvalade"  
},
```

node

- ***lisbon-metro.json***



TASK 2

- D3-tube-map



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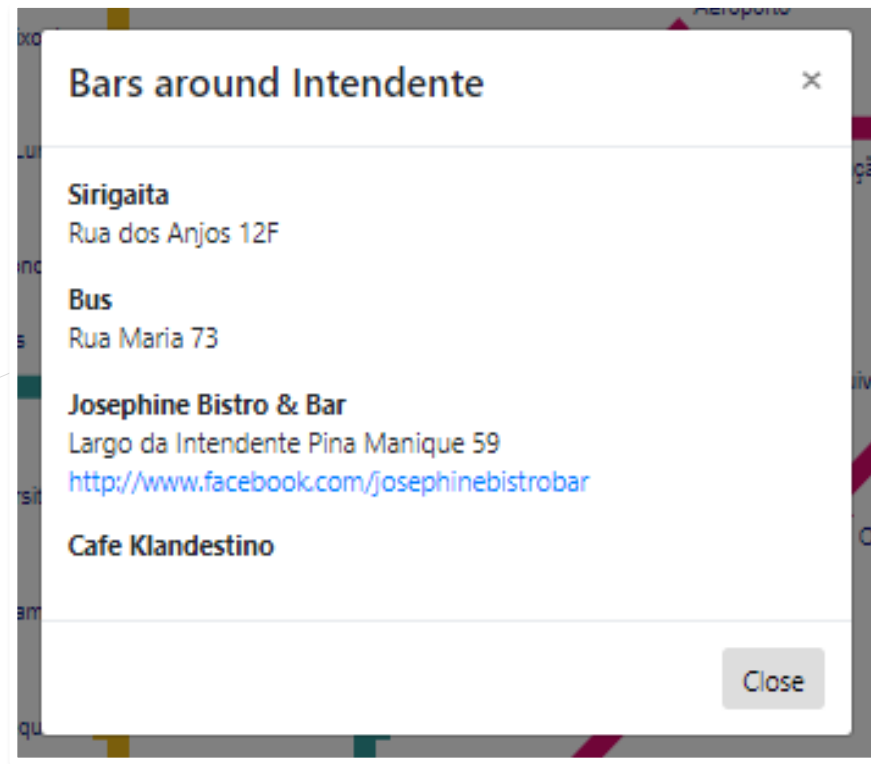


TASK 3

- Overpass API
- *getBarsAround()*

```
[out:json];  
node["amenity"="bar"](around:500,{lat},{lon});  
out;
```

- Bars
 - Name
 - Street Address
 - Website





REPOSITORY

<https://github.com/JCanhao/GSDB.git>

