## TASKS - 01.07.2020

The development to do concerns the refinement and modification of the previously developed API.

Here are the tasks:

TASK 1	API CREATE		
API Name	readDataByArea		
Parameters	o latU		
	o latD		
	o latD		
	o tipoDati		
PARAMETERS DESCRIPTION			
latU	latitude of the point at the top left		
IonU	longitude of the point at the top left		
latD	latitude of the point at the bottom right		
latD	longitude of the point at the bottom right		
tipoDati	These are possible values:		
	• attivita		
	• superficieEdificato		
	superficieAreeServizio		
	struttureVarie		
	• tutti		
	Here are the specifications regarding the "tipoDati" parameter:		
	attivita	TODO IN ANOTHER TASK	
	superficieEdificato	Tables:     search the list of tables in table: "ws_datatype_tables" (osm_buildings)  Output:     a GeoTIFF file (multilevel): with the levels grouped according to the data stored in the table "ws_datatype_groups"     a JSON file with the structure defined in the file "02_superficieEdificato.json"     In the JSON file there are 2 fields for saving totale area:	
	superficieAreeServizio	Tables:  • search the list of tables in table: "ws_datatype_tables" (osm_landuse)  Output to be produced:  • a GeoTIFF file (multilevel): with the levels grouped according to the data stored in the table "ws_datatype_groups"  • a JSON file with the structure defined in the file "03_superficieAreeServizio.json"  • In the JSON file there are 2 fields for saving totale area:	

		<ul><li> "layer_area": with the area of a single layer</li><li> "totale_area": with the are of all layers</li></ul>
	struttureVarie	Tables:  • search the list of tables in table: "ws_datatype_tables" (osm_pois)  Output:  • a JSON file with the structure defined in the file "04_struttureVarie.json"
	tutti	Selecting this parameter you will have to produce all the outputs previously described

## **DATA SOURCE**

- Download data from <a href="http://download.geofabrik.de/europe/italy/sud.html">http://download.geofabrik.de/europe/italy/sud.html</a>
- Load these shapefile:
  - o "gis\_osm\_buildings\_a\_free\_1.shp" into table "osm\_buildings"
  - o "gis\_osm\_landuse\_a\_free\_1.shp" into table "osm\_landuse"
  - o "gis\_osm\_pois\_a\_free\_1.shp" into table "osm\_pois"