Python code for Bin location and Bin Status

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PROJECT NAME: SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES

CODE:

```
import requests
import urllib.parse
import folium
address = 'kodambakkam'
address1 = 'virugambakkam'
address2 = 'Royapettah'
address3 = 'Ambattur'
address4 = 'Coimbatore'
str1 = input("Enter the string:")
if(str1 == address):
  url = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quote
(address) +'?format=json'
  response = requests.get(url).json()
  a = response[1]["lat"]
  b = response[1]["lon"]
  m = folium.Map(location =[a,b],zoom_start=15)
  folium.Marker(location =[a,b],popup=" kodambakkam",tooltip="click for mo
re info").add_to(m)
  folium.Marker(location =[13.0559, 80.2265],popup=" ",tooltip="click for
more info").add_to(m)
folium.Marker(location =[13.0418, 80.2341],popup=" ",tooltip="click for mo
re info").add_to(m)
folium.Marker(location =[13.0532, 80.1922],popup=" ",tooltip="click for mo
re info").add_to(m)
m
if(str1 == address1):
  url1 = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quot
e(address1) +'?format=json'
  response = requests.get(url1).json()
  a = response[1]["lat"]
  b = response[1]["lon"]
  m = folium.Map(location =[a,b],zoom_start=15)
```

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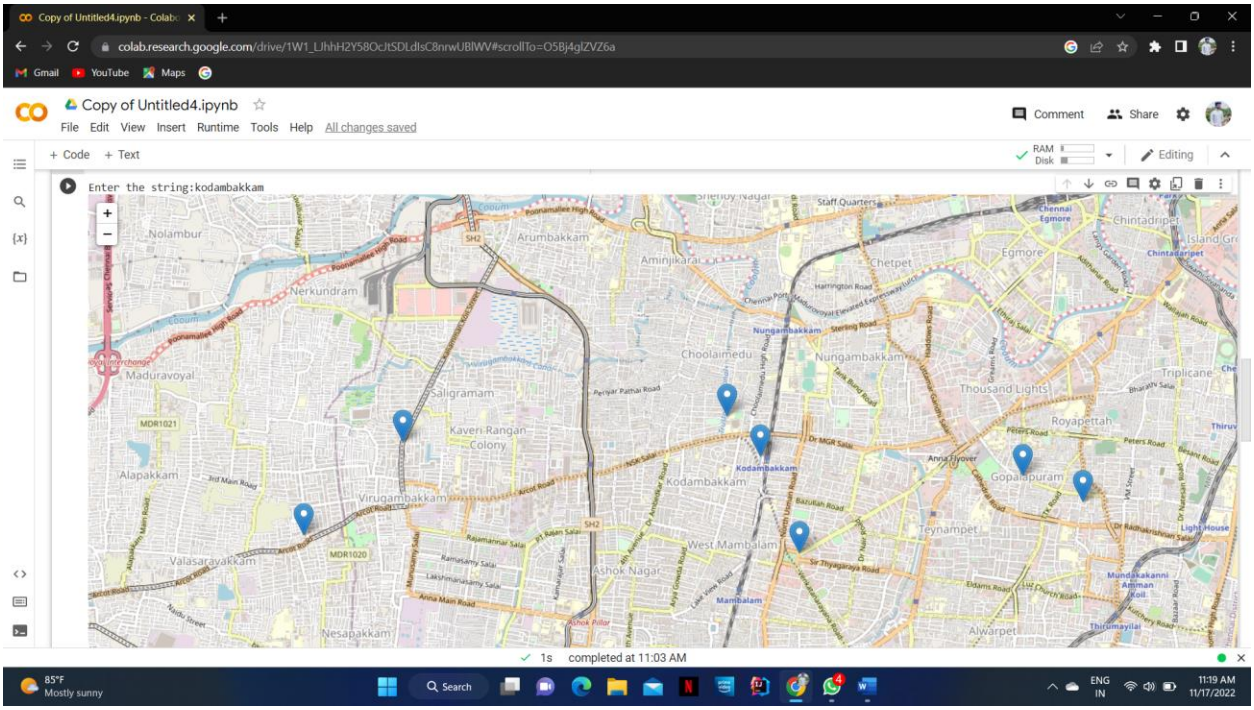
  folium.Marker(location =[a,b],popup=" ",tooltip="click for more info").a
dd_to(m)
folium.Marker(location =[22.6992, 75.8671],popup=" ",tooltip="click for mo
re info").add_to(m)
folium.Marker(location =[13.0436, 80.1817],popup=" ",tooltip="click for mo
re info").add_to(m)
#folium.Marker(location =[13.0532, 80.1922],popup=" ",tooltip="click for m
ore info").add_to(m)
m
if(str1 == address2):
  url2 = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quot
e(address2) +'?format=json'
  response = requests.get(url2).json()
  a = response[1]["lat"]
  b = response[1]["lon"]
  m = folium.Map(location =[a,b],zoom_start=15)
  folium.Marker(location =[a,b],popup=" Royapettah",tooltip="click for mor
e info").add_to(m)
folium.Marker(location =[  13.0497, 80.2577],popup=" kodambakkam",tooltip=
"click for more info").add_to(m)
folium.Marker(location =[13.047059,80.264052],popup="Harshitha's home",too
ltip="click for more info").add_to(m)
m
if(str1 == address3):
  url2 = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quot
e(address3) +'?format=json'
  response = requests.get(url2).json()
  a = response[1]["lat"]
  b = response[1]["lon"]
  m = folium.Map(location =[a,b],zoom_start=15)
  folium.Marker(location =[a,b],popup=" Ambattur",tooltip="click for more
info").add_to(m)
  folium.Marker(location =[13.0892, 80.1613],popup=" ",tooltip="click for
more info").add_to(m)
folium.Marker(location =[13.1142, 80.1527],popup=" ",tooltip="click for mo
re info").add_to(m)
folium.Marker(location =[13.1197, 80.1501],popup=" ",tooltip="click for mo
re info").add_to(m)
m
if(str1 == address4):
  url3 = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quot
e(address4) +'?format=json'
  response = requests.get(url3).json()
  a = response[1]["lat"]
  b = response[1]["lon"]
```

```
  m = folium.Map(location =[a,b],zoom_start=15)
  folium.Marker(location =[a,b],popup="Coimbatore",tooltip="click for more
 info").add_to(m)
  folium.Marker(location =[11.0242, 77.0028],popup=" ",tooltip="click for
more info").add_to(m)
folium.Marker(location =[10.822477, 77.016144],popup=" ",tooltip="click fo
r more info").add_to(m)
folium.Marker(location =[11.0102, 76.9504],popup=" ",tooltip="click for mo
re info").add_to(m)
m
```

BIN LOCATION ON MAP:



BIN STATUS:

```
import requests
import urllib.parse
import random
import time
address = ['kodambakkam','T.Nagar','West mambalam','vadapalani','ekkattuth
angal']

for x in address:
```

```
  url = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quote
(x) +'?format=json'
  response = requests.get(url).json()
  a = response[1]["lat"]
  b = response[1]["lon"]
  print("Lattitude:",a)
  print("Longitude:",b)
  bin_stat = random.randint(0,100)
  Inpercent=str( bin_stat) +  "%"
  print("The Bin is",bin_stat, "% full")
```

OUTPUT: