

An overview about the environment of most popular universities in sfax, Tunisia

Capstone Project - Sfax universities, 29 december 2019

1. A description of the problem

Many centers of research try to understand why there is big difference between scores of success and motivation of students between various universities in my city Sfax, Tunisia

2.Idea of this work:

To do so, I propose in this report to understand the environment of the most popular universities in sfax in order to evaluate this factor. So in this work, I will study the neighbors venues of each university, coffee, restaurant, sport center, ect... This study will change many strategies of minister of education and also many people that have idea to open a coffee, restaurant or sport center.

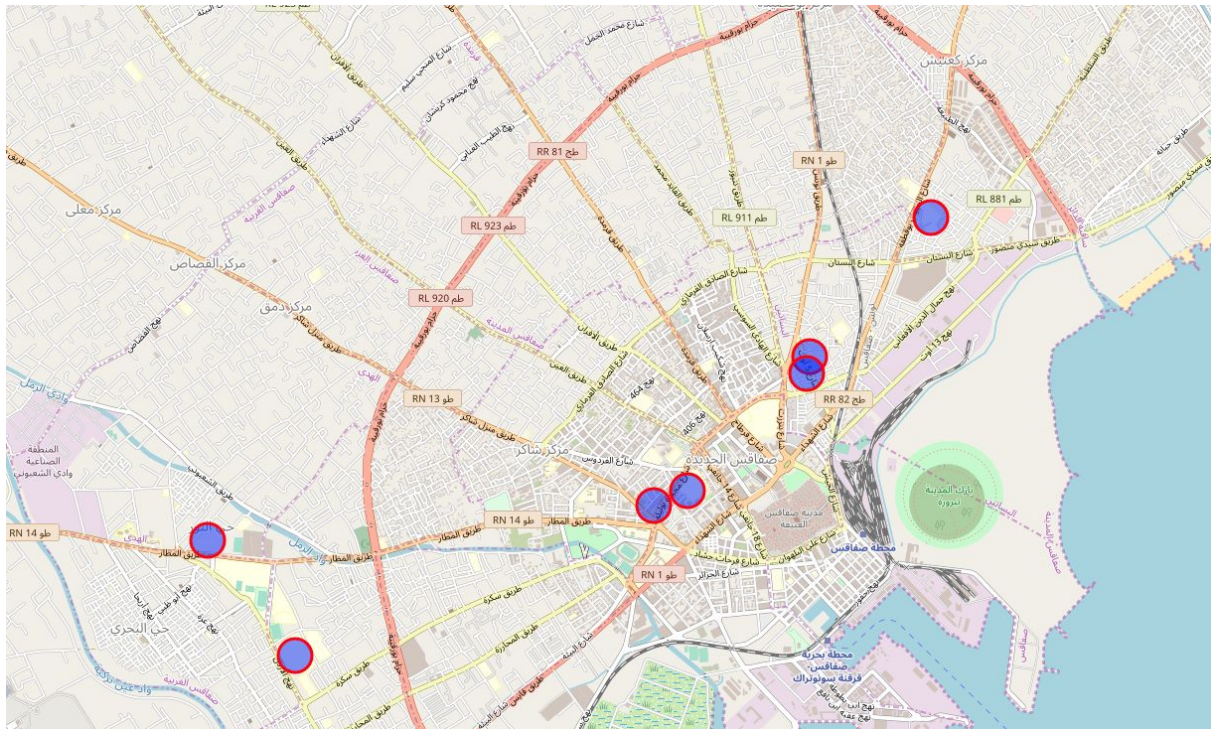
3.Description of the data

Then I extract information about universities of sfax from

https://en.wikipedia.org/wiki/University_of_Sfax and i search latitudes and longitudes from

<https://www.coordonnees-gps.fr/carte/pays/TN>. I construct manually a data frame about 9

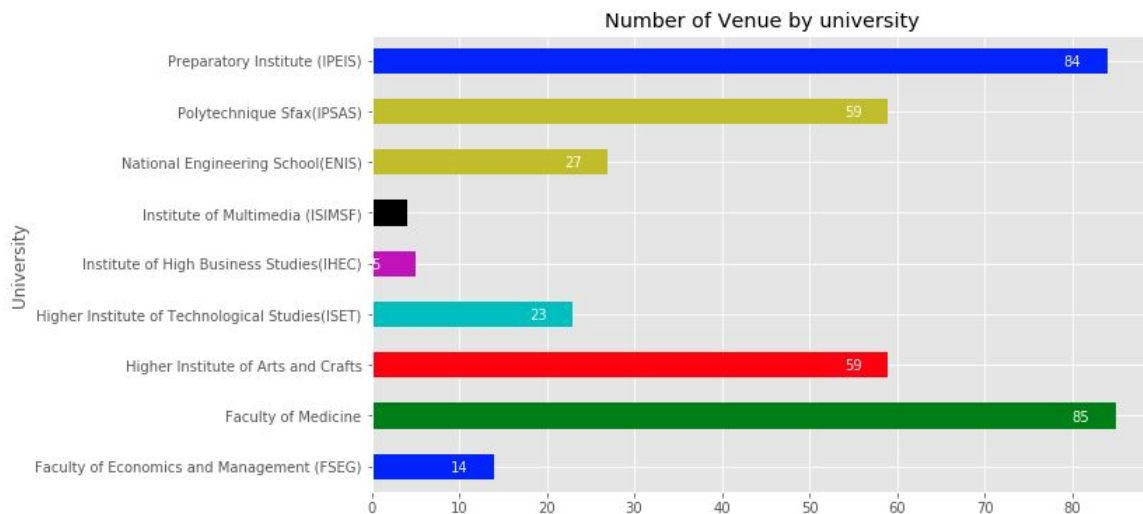
universities: data = Faculty of Medicine National Engineering School(ENIS), Institute of Multimedia (ISIMSF), Institute of High Business Studies(IHEC), Preparatory Institute (IPEIS), Faculty of Economics and Management (FSEG), Higher Institute of Technological Studies(ISET), Higher Institute of Arts and Crafts, Polytechnique Sfax(IPSAS)



3. Methodology

3.1 Number of venues

Using foursquare API, I wil extract all venues that are near to each universities. I calculate for each university the number of near venues. I plot a bar figures for that. I remark that there is big difference between number of near venues as shwon below.



3.2 Category of venues

I also extract the category of each venue. Next, I change the name of categories as they are very similar. I organize the data frame to have a category in following group: Coffee, Shop, Sport, Restaurant and Leisure space

3.3 Comptuing frequency of each category and results

I compute the frequency of each venue just near the university. For each university, I ouput the most frequent category as followwing:

Results:

----Faculty of Economics and Management (FSEG)----

- 0 Coffee 0.57
- 1 Sport 0.21
- 2 Restaurant 0.14

----Faculty of Medicine----

- 0 Restaurant 0.33
- 1 Coffee 0.26
- 2 Shop 0.14

----Higher Institute of Arts and Crafts----

0 Restaurant 0.39

1 Shop 0.22

2 Coffee 0.20

----Higher Institute of Technological Studies(ISET)----

0 Coffee 0.26

1 Restaurant 0.22

2 Shop 0.13

----Institute of High Business Studies(IHEC)----

0 Coffee 0.4

1 Restaurant 0.4

2 Delicious 0.2

----Institute of Multimedia (ISIMSF)----

0 Restaurant 0.50

1 Coffee 0.25

2 Leisure space 0.25

----National Engineering School(ENIS)----

0 Coffee 0.48

1 Restaurant 0.22

2 Sport 0.15

----Polytechnique Sfax(IPSAS)----

0 Restaurant 0.39

1 Shop 0.24

2 Coffee 0.19

----Preparatory Institute (IPEIS)----

0 Restaurant 0.33

1 Coffee 0.30

2 Shop 0.14

Discussion and conclusion

In our work, I include 9 universities. These results shown the Coffee venue is the most frequent for 4 universities and venue Restaurant for 5 universities. The other frequent venues are shop and sometimes sport. This work can be followed for more details when we have a data about motivation and score of success of each universities. BUT, for such people who is interessted to open a coffee, I will encourage him to open it just near Polytechnique Sfax(IPSAS).