Predicting Residential Area For Education

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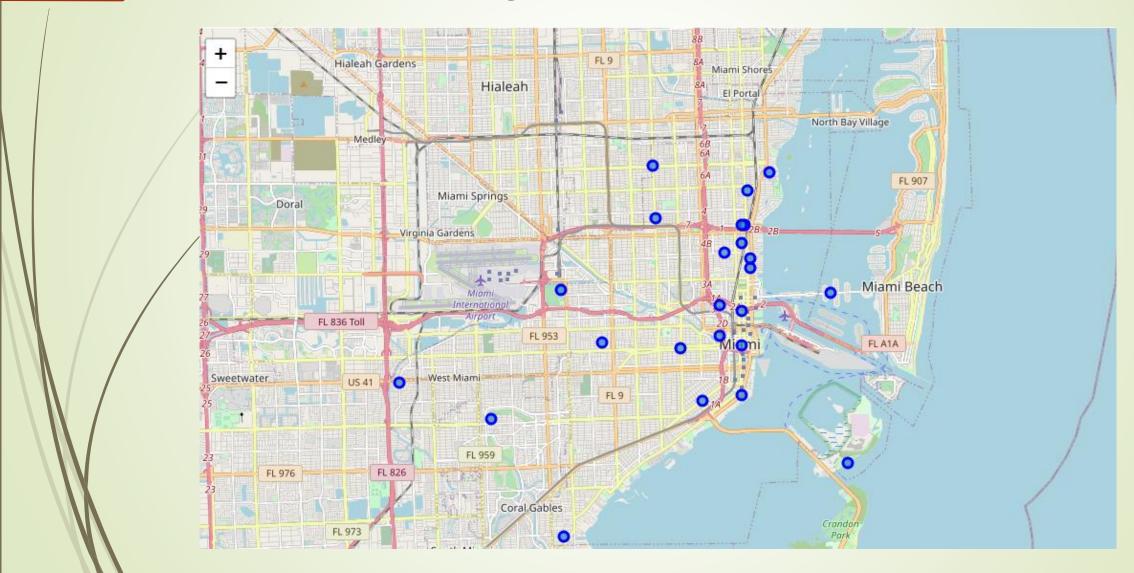
- In this project we will try to find an optimal location for a better education options available in Miami. Specifically, this report will be targeted to stakeholders interested in selecting a residence location in Miami, Florida, USA which has maximum Education institution.
- There are lots educational institutes available in Miami and we will try to detect locations that has more options for Education.
- We will use our data science powers to generate a few most promising neighborhoods based on this criteria. Advantages of each area will then be clearly expressed so that best possible final location can be chosen by stakeholders.

Data acquisition and cleaning

- Based on definition of our problem, factors that will influence our decision are:
- * Number of existing education institution available in the neighborhood
- Following data sources will be needed to extract/generate the required information:
- * Neighborhoods in Miami and its Co-ordinates.
- This data will be extracted from the following web page.
- https://en.wikipedia.org/wiki/List_of_neighborhoods_in_Miami

* Number of educational institutes and their type and location in every neighborhood will be obtained using **Foursquare API**

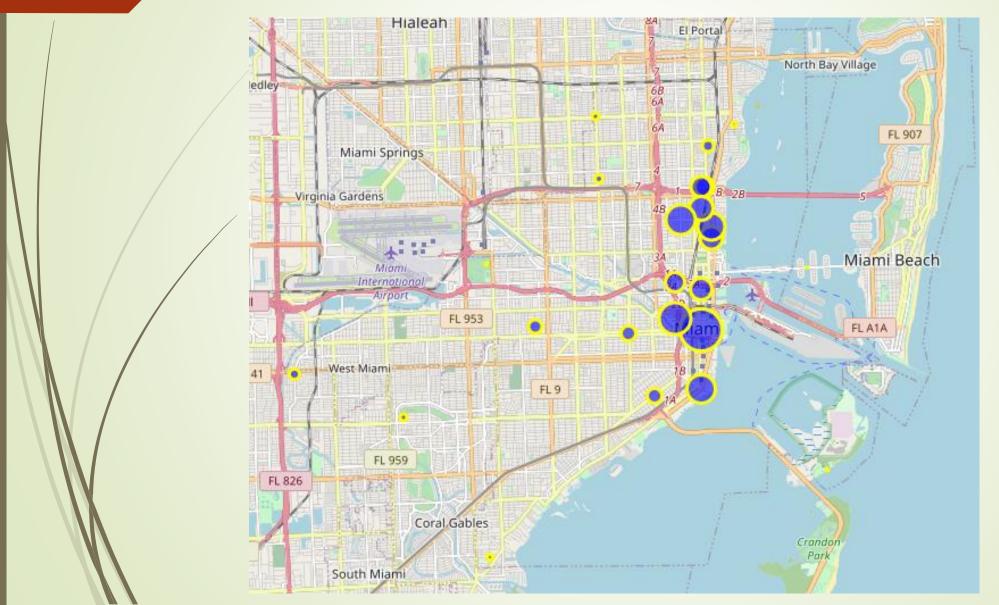
Miami Neighborhoods



Top 10 Neighborhood based on Educational Density

| | Neighborhood | 1st Most Common Venue | 2nd Most Common Venue | 3rd Most Common Venue | 4th Most Common Venue | 5th Most Common Venue | 6th Most Common Venue | 7th Most Common Venue | 8th Most Common Venue | 9th Most Common Venue | 10th Most Common Venue | NumberOfInstitutes |
|---|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------------|------------------------------------|-----------------------------|------------------------------------|------------------------------|------------------------------|--------------------|
| 0 | Downtown | School | Elementary School | Language School | Preschool | Music School | General College & University | Private School | Church | Daycare | High School | 37 |
| 1 | Lummus Park | School | Elementary School | High School | Music School | General College & University | Language School | Private School | Church | Daycare | Middle School | 28 |
| 2 | Wynwood | School | Elementary School | High School | Language School | Preschool | Art Gallery | College Arts Building | Miscellaneous Shop | Adult Education Center | Playground | 26 |
| 3 | Brickell | School | Preschool | Language School | Private School | Nursery School | Church | Elementary School | General College & University | Middle School | Music School | 25 |
| 4 | Edgewater | School | Elementary School | High School | Language School | Miscellaneous Shop | Art Gallery | College Arts Building | University | Adult Education Center | Playground | 24 |
| 5 | Midtown | School | Elementary School | High School | Language School | Preschool | Art Gallery | College Arts Building | Miscellaneous Shop | Adult Education Center | Playground | 21 |
| 6 | Arts & Entertainment District | School | Elementary School | Language School | High School | Miscellaneous Shop | Art Gallery | University | Adult Education Center | Preschool | Playground | 20 |
| 7 | Park West | School | High School | Elementary School | Language School | Daycare | General College & University | University | Art Gallery | Business Service | Church | 19 |
| 8 | Design District | School | Elementary School | High School | Language School | Art Gallery | College Arts Building | Preschool | Miscellaneous Shop | Golf Course | Business Service | 18 |
| 9 | Buena Vista | School | Elementary School | High School | Language School | Art Gallery | College Arts Building | Preschool | Miscellaneous Shop | Golf Course | Business Service | 17 |

Neighborhoods based on Educational Density



Conclusion

By considering data and map we can see that area near to Midtown neighborhood is most suitable for requirement.