**Final Project –** Proposal

**Topic –** Analytics of neighborhoods in City of Toronto

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**Goal -** Group Toronto neighborhoods in order of desirability using Machine Learning and Data Visualization techniques.

Breaking it down to criteria of:

* Count of number essential venues in each neighborhood
* Basis of this topic by:
  + Unemployment rate
  + Crime rate
  + Covid-19 rate
  + Housing price and rental in each neighborhood

**Procedure**

* Using Pandas (Jupyter notebook) for ETL
* Using Google colab for machine learning (Scikit learning)
* Geopy and geojson – to retrieve location coordinates.
* Plotly Visualization Package – For all visualizations (including maps and graphs)

**Data:**

* City of Toronto open data source portal
  + [**https://open.toronto.ca/dataset/neighbourhoods/**](https://open.toronto.ca/dataset/neighbourhoods/)
  + [**https://www.toronto.ca/home/covid-19/covid-19-latest-city-of-toronto-news/covid-19-status-of-cases-in-toronto/**](https://www.toronto.ca/home/covid-19/covid-19-latest-city-of-toronto-news/covid-19-status-of-cases-in-toronto/)
  + [**https://open.toronto.ca/dataset/neighbourhood-crime-rates/**](https://open.toronto.ca/dataset/neighbourhood-crime-rates/)
  + [**https://open.toronto.ca/dataset/neighbourhood-profiles/**](https://open.toronto.ca/dataset/neighbourhood-profiles/)
  + [**https://www.zumper.com/rent-research/toronto-on**](https://www.zumper.com/rent-research/toronto-on)