

# Data Science Programming Final Project

- An analysis of the Hackettstown Businesses in a Distance

Matrix format

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# Introduction

- Why Did I Choose to explore the Hackettstown Businesses, and what was the primary question?

What different individuals benefit from this analysis?

- The Hackettstown (BID)
  - Hackettstown Developers
  - Entrepreneurs
- 

# Methodology

Business Names →

Business Location →

**30 Burgers**

903 High Street

[Directions →](#)

**(908) 452-5497**

[Website →](#)

## Methodology:

- Webscrapping <https://hackettstownbid.com/>
- For instance,

```
<div class="fusion-column-wrapper fusion-column-has-shadow fusion-flex-justify-content
-flex-start fusion-content-layout-column"> <flex>
  <div class="fusion-text fusion-text-4">
    <p>
      <strong> 30 Burgers </strong>
      "903 High Street"
      <br>
      <a href="https://goo.gl/maps/dwAwVJ2KfpZfyCrk6" target="_blank" rel="noopener">
        Directions →</a>
      </p>
    <p> == $0
      <a href="tel:+1-908-452-5497">(908) 452-5497</a>
      <br>
      <a href="http://30burgershkt.com/" target="_blank" rel="noopener">Website →</a>
    </p>
  </div>
</div>
```

- Tools: Jupyter Notebook + Python + .env. + python pickling

# results

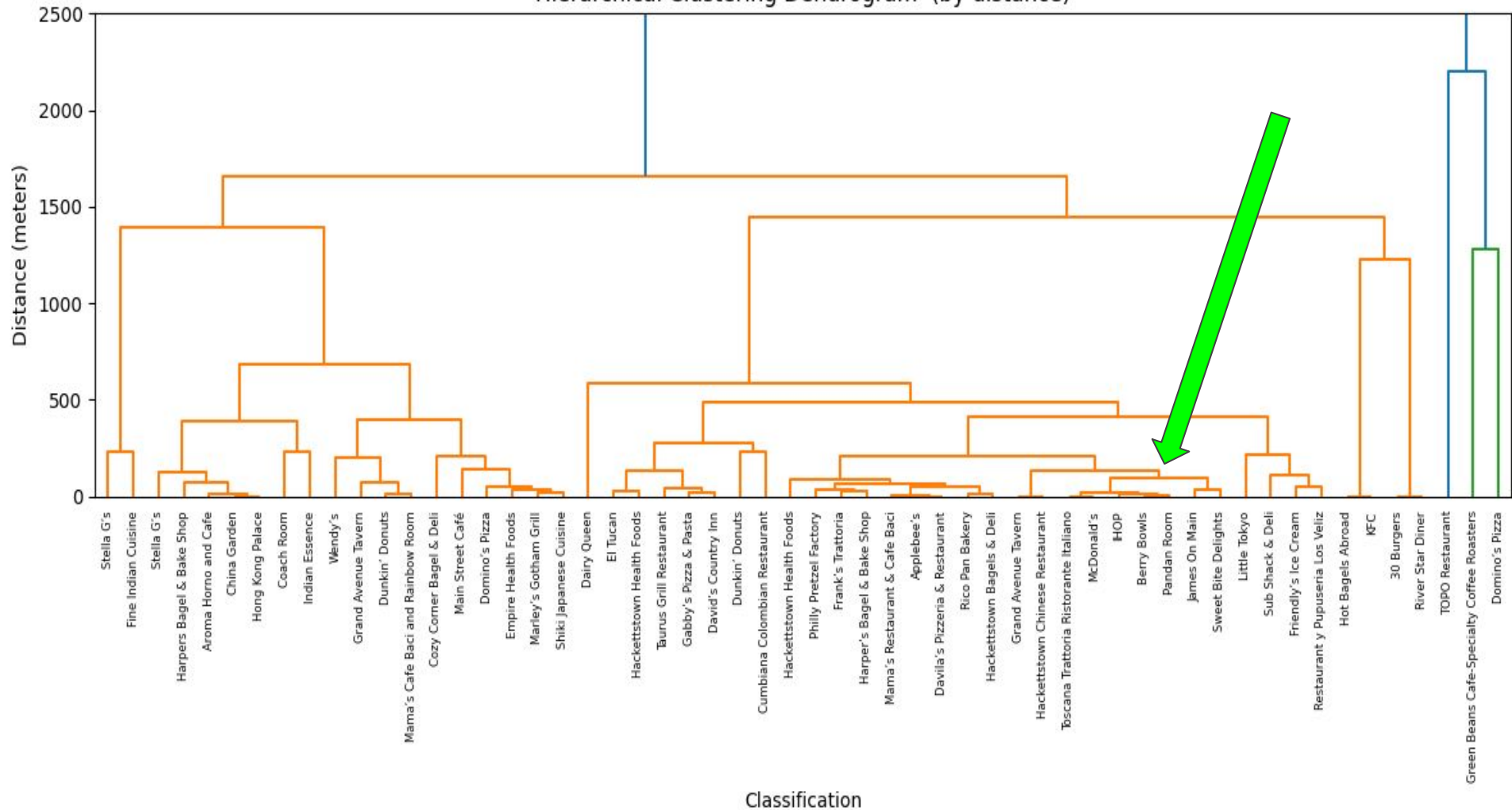
- Distance matrix of a selection of 5 of the items from the Hackettstown restaurant.
- The matrix did not directly answer my questions, but it was important in developing the premise of how the correlations could be interpreted.

Name	30 Burgers	Grand Avenue Tavern	James On Main
Name			
30 Burgers	0.000000	1546.632399	1409.834982
Grand Avenue Tavern	1546.632399	0.000000	205.391354
James On Main	1409.834982	205.391354	0.000000
Coach Room	3545.743906	2100.984595	2297.339462
Grand Avenue Tavern	2344.672573	933.991106	1138.474462

Name	Coach Room	Grand Avenue Tavern
Name		
30 Burgers	3545.743906	2344.672573
Grand Avenue Tavern	2100.984595	933.991106
James On Main	2297.339462	1138.474462
Coach Room	0.000000	1202.647752
Grand Avenue Tavern	1202.647752	0.000000

# Hierarchical Clustering Dendrogram (by distance)



# Future work

## **Future Work:**

- What could including other towns improve to the data + analysis?
- Issues with some data leaving gaps in answers.



# Appendix

- Include any other supporting documentation, explanations, or plots that you could be useful during the Q&A.

Stack Overflow

