## Cluster Analysis

## Instructions

Conduct a cluster analysis on your project (or thesis) data. The format of the homework should look like a report that addresses the following questions, within the following sections.

- Introduction
  - This is a brief data introduction to the data.
  - a priori what do you expect to find? Is there a natural grouping you expect to find in your data?
- Data Preparation
  - Any data management that you did prior to the analysis (filtering, only choosing certain variables etc)
- Methods
  - Explain in english which clustering methods you are using. Including details such as type of distance or linkage.
  - You must test out at least two clustering algorithms.
  - You must explore different numbers of k
- Results
  - You must include plots
  - You must talk about each plot.
- Conclusion
  - What is your take home message? How many clusters do you have?
  - Can you interpret your clusters in context?
  - Does anything stand out?
  - Did you expect these results?

## Submission instructions

- Name this file hw05\_cluster\_username
- Compile to PDF, make sure it looks clean and readable.
- Use markdown headers (#, ##) to denote sections.
- Upload to Topic 05 google drive folder by the due date.
- You will still have a draft and final version.