Live Session Assignment 4: Basic Clustering

Five times during the course we will hold a "Flipped Lecture Assignment," where videos are posted/watched before the live session and we will use class time to complete a live coding assignment. The specifications for the assignment will be given at the start of session, and the assignment will then be turned in at the end of the live session. Students can work individually or in teams and turn in the live-session assignments at the end of the session. In-session assignments will be given in the form of an iPython notebook with blank spaces for questions and blank spaces for code to be filled in. As a team, you will answer the questions to the best of your ability. Live-session assignments should be turned in as rendered iPython notebooks (exactly like the preferred method for lab assignments).

This live session assignment will contain questions about using k-means, HAC, and DBSCAN in scikit-learn. You will be asked to live code (mostly using scikit-learn) some algorithms we went over in this videos. **Note for windows users:** k-means clustering is not optimized in the current release of scikit for the windows OS. It therefore takes many minutes to run each iteration (instead of milliseconds). The easiest way to run the notebook is via mac or linux. If you will be running windows, please inform the instructor.

If working as a team, all team members will need to be present to receive a grade. An absence during a live-session assignment cannot be made up after the assignment has been given in session. However, certain arrangements (in very restricted circumstances) can be made beforehand to take the assignment early. For example, known cleared absences like conference/work-related travel, travel related to university sanctioned extracurricular activities, etc. Exceptions will be made for unexpected circumstances such as death/hospitalization of a family member.