

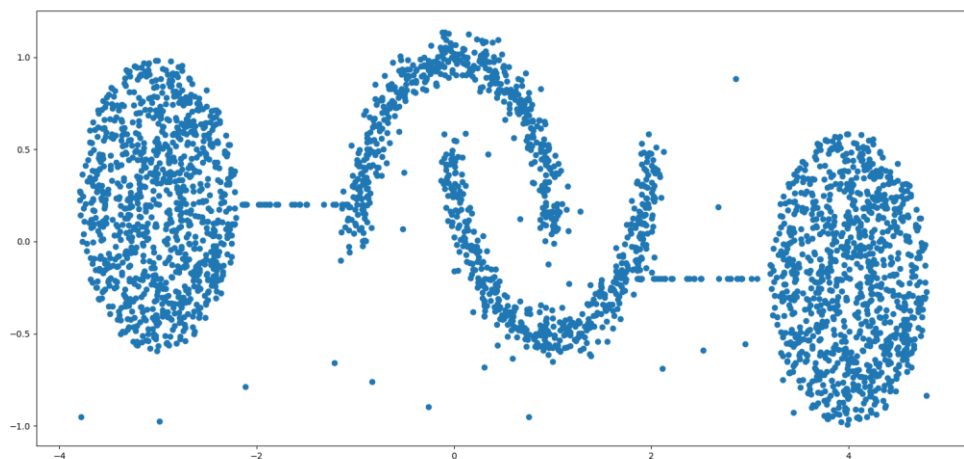
BT3041 – Analysis and Interpretation of Biological Data

Assignment 1

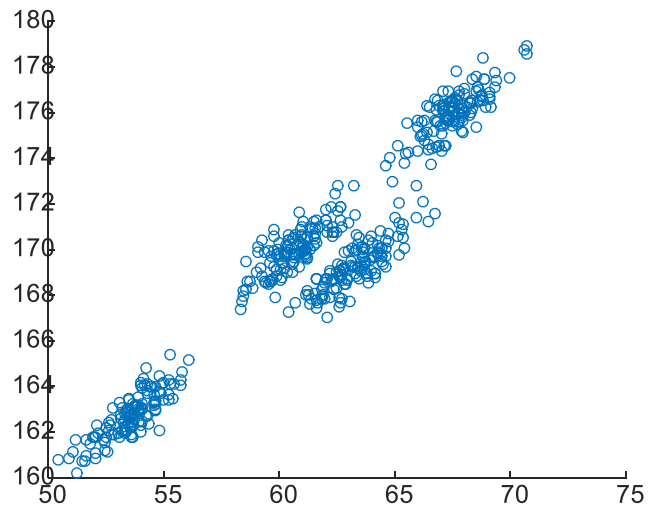
General Instructions:

- ✓ The goal of this assignment is simulating and Understanding the DBSCAN clustering algorithm.
 - ✓ This is an individual assignment.
 - ✓ You may use MATLAB or Python for your implementation. (Note basic libraries like numpy can be used, however specialized datascience libraries is not allowed. depending on the library usage marks awarded will also vary).
 - ✓ You have to turn in the well commented code along with a detailed report of the study with inferences and conclusion.
 - ✓ Your report should contain answers for all of the questions/cases asked below.
 - ✓ Look at the end of the assignment for submission instructions.
 - ✓ **Submission deadline: Tuesday 15th March, 2022 (23:59).**
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1. Implement dbscan algorithm to cluster the given 2000 datapoints (dataset: dbscan2000). Report the right parameters to get four clusters and plot the clusters.



2. Implement dbscan algorithm to cluster the below given data points (dataset: Clustering_gmm). Please select epsilon =0.5 and minimum points in a cluster as 10.



Submission Instructions

Please enclose all your programs, plots and report in a single zip folder.

Please submit a compressed zip or tar file named as <ROLLNO>_A1.zip by uploading it to the moodle.