

Working with peers is not allowed for the projects

Sorry. You need to work on your own for the project.

TASK:

You are required to use K-Means to segment the customers in the data set. Your training data is a CSV file called `Customers_clustering.csv` with the following headers for 5 columns:

Customer ID	Gender	Age [years]	Annual Income [\$1000/year]	Spending Score (1-100)
-------------	--------	----------------	--------------------------------	---------------------------

The first column is just the customer ID or number of each instance. The next 4 columns are training features.

You should use the data to arrive to (i) the number of clusters, and (ii) the centroid vector for each cluster, so we can use these to predict to which cluster a new instance feature vector will belong.

How to hand in your work:

(1) Please, use the template provided (`Project_2_template.docx`) to explain how your project works.

Replace the green text with the information requested. Note: Do not explain where you went wrong and tried to fix it, nor that you got sick and had to do it on the last night. Imagine you are delivering this report to your manager, and you just need to explain what method you used, how to run it, and the results you got. **See the template for guidelines.** Once it's done, save your template as a PDF file to include among your deliverables.

(2) Please, sign and scan this page and include it among your submission files.

(3) Provide your scripts in individual working m files.

● Collect all your files into one ZIP file with the name `<your UID><your last name>Project2.zip`

● Upload the ZIP file to the Canvas Assignment called **Project 2**. If Canvas is down, or if Canvas prevents you from uploading your ZIP file, only then you may email your submission to the grader at this email address: `anakra@terpmail.umd.edu` Note: your grader will check Canvas for submissions, and only view his email if your submission is missing from Canvas.

When to hand in your work:

Due date: December 8, 2021

Due time: 9pm

Note: Late submissions will receive a reduced grade: 5% from the first half hour until the end of the day. Then, afterwards 10% per day, cumulatively.

Honor Pledge:

"I understand that all work handed in must be my own, individual work. I pledge on my honor that I have not given or received any unauthorized assistance on this homework."

Student Signature: Chih-Hua Chang

Student Name: Chih-Hua Chang

Student UID: 118143422