1. Consider the `customers.csv` datafile. This file contains information related to customers' activity on a company website. Below are the description of the variables.

   - `ID:` customer ID
   - `Visit_Time:` The number of visits to the company's website in a given month.
   - `Average_Expense:` The average amount of money that the customer has spend.
   - `Sex:` gender of the customer (0: female, 1: male).
   - `Age:` age of the customer.

   In Python, answer the following:

   (a) (3 points) Using the `pandas` library, read the csv file and create a data-frame called `customers`.

   (b) (3 points) Using the appropriate Python commands, remove the `ID` variable.

   (c) (5 points) Using the appropriate standardization formula, put all the variables on the same scale. *Hint:* Notice that `Sex` is a 0-1 variable.

   (d) (8 points) Using the silhouette score, estimate the number of cluster for this dataset. Consider 2 to 20 clusters. Make sure to use `n_init = 20`.

   (e) (6 points) Using the `cmeans` function from the `skfuzzy.cluster` library, cluster the customers into the number of clusters estimated from part (d).

   (f) (10 points) Change the likelihoods to cluster labels using 70% as threshold. Describe each of the clusters from part (d).