**CIDM 6355 Exam 2 Part 2 Submission**

**Due 11:59 PM CT Nov 12, 2023 (Total 70 points)**

Requirements: This exam is open book, open slides, and open notes. However, this is an individual exam, so you are not allowed to collaborate nor discuss with anyone else before the due time of the exam. Any question about the exam should be addressed to the instructor. You are required to follow the instruction to complete all the questions and deliverables. You are not allowed to share your RM processes, R scripts, screenshots, or answers with other students or parties; otherwise, such a behavior will be reported to the university authority. In addition, it is your responsibility to make your answers meet the required format; otherwise, you might lose points because of wrong format.

Please read, understand, and comply with these requirements in this exam by typing your name as below.

**Name: Trevor Hofmann**

1. Step 2.3 Take a screenshot of the centroid table with date and time (Screenshot 1). [5 points].

A screen shot of a computer

Description automatically generated

1. Step 2.6 Take a screenshot of the ANOVA table with date and time (Screenshot 2) and briefly describe your conclusion. Your conclusion must be based on both Steps 2.4 and 2.5. [9 points: 5 pts for your screenshot and 4 pts for your description]

A screenshot of a computer

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1. A blue rectangular object with white background

   Description automatically generatedStep 3.3 Take a screenshot of your output (cluster size and centroids) with date and time (Screenshot 3) [5 points]
2. A screen shot of a computer

   Description automatically generatedStep 3.6 Take a screenshot of the ANOVA table with date and time (Screenshot 4) and briefly describe your conclusion based on the ANOVA table. [9 points: 5 pts for your screenshot and 4 pts for your description]

There is a significant differences in the average quality ratings among each cluster.

1. Step 4.3 Take a screenshot of the bar chart with date and time (Screenshot 5) and briefly describe your conclusion. Your conclusion must include each cluster’s size and their average quality ratings. [9 points: 5 pts for your screenshot and 4 pts for your description]

Cluster 1 seems have the highest average and cluster 0 has the lowest

A screenshot of a graph

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1. Step 5.5 Take a screenshot of the bar chart with date and time (Screenshot 6) and briefly describe your conclusion. Your conclusion must include each cluster’s size (Step 5.3) and their average quality ratings. [9 points: 5 pts for your screenshot and 4 pts for your description]

A screenshot of a computer

Description automatically generated

Each cluster seems to decrease in average quality in order from 1,2,3

1. Step 6.2 Please compute each pair’s match rate and attach the corresponding screenshot below. You must show how your match rate is computed; your screenshot (e.g., a PivotTable) must show how clusters from each model matched with each other. Your screenshots do not have to show date and time. [24 pts: 2 pts. for each match rate and 2 pts for each screenshot]

Attention: To calculate the match rate, please illustrate how it is computed, as demonstrated in the following example; otherwise, 1 point will be deducted. You should provide a screenshot that clearly displays how each pair of clusters is matched, similar to the example shown; otherwise, 1 point will be deducted.

|  |  |  |
| --- | --- | --- |
| Model Pair | Match Rate | A screenshot to support your match rate |
| Models 1 & 2 | 1 |  |
| Models 1 & 3 | 0.693333 |  |
| Models 1 & 4 | 0.68 |  |
| Models 2 & 3 | 0.693333 |  |
| Models 2 & 4 | 0.68 |  |
| Models 3 & 4 | 0.54 |  |