Data Boot Camp Grading Rubric

Module 20 - Unsupervised Machine Learning Homework - Myopia Clusters

Instructions:

Evaluate the homework against the outlined criteria in the below rubric, assigning a rating to each criterion. Add points earned across all criteria and convert the total points to a letter grade, assigning a "+" or "-" letter grade designation at your discretion.

A (+/-)	90+	C (+/-)	70-79	F (+/-)	<60
B (+/-)	80-89	D (+/-)	60-69		

Notes:

The deployed assignment utilizes the **sklearn** library to train unsupervised learning models on a set of data. The source code should also be deployed to **GitHub** or **GitLab**.

Rubric for Predicting Credit Risk :

	Proficiency 100 to > 90 points	Approaching Proficiency 89 to > 80 points	Developing Proficiency 79 to > 60 points	Emerging 59 to > 0 points	Incomplete
Data Preparation	The submission does 4 or more of the following: ✓ Reads the csv into pandas ✓ Previews the DataFrame ✓ Removes the MYOPIC column from the dataset ✓ Standardizes the dataset using a scaler ✓ Names the resulting DataFrame X	The submission does 3 of the following: ✓ Reads the csv into pandas ✓ Previews the DataFrame ✓ Removes the MYOPIC column from the dataset ✓ Standardizes the dataset using a scaler ✓ Names the resulting DataFrame X	The submission does 2 of the following: ✓ Reads the csv into pandas ✓ Previews the DataFrame ✓ Removes the MYOPIC column from the dataset ✓ Standardizes the dataset using a scaler ✓ Names the resulting DataFrame X	The submission does 0-1 of the following: ✓ Reads the csv into pandas ✓ Previews the DataFrame ✓ Removes the MYOPIC column from the dataset ✓ Standardizes the dataset using a scaler ✓ Names the resulting DataFrame X -OR- ✓ No data preparation done	No submission was received -OR- Submission was empty or blank -OR- Submission contains evidence of academic dishonesty

Dimensionality Reduction	The submission does 4 or more of the following: ✓ PCA model is created and used to reduce dimensions of the scaled dataset ✓ PCA model's explained variance is set to 90% (0.9) ✓ The shape of the reduced dataset is examined for reduction in number of features ✓ t-SNE model is created and used to reduce dimensions of the scaled dataset ✓ t-SNE is used to create a plot of the reduced features	The submission does 3 of the following: ✓ PCA model is created and used to reduce dimensions of the scaled dataset ✓ PCA model's explained variance is set to 90% (0.9) ✓ The shape of the reduced dataset is examined for reduction in number of features ✓ t-SNE model is created and used to reduce dimensions of the scaled dataset ✓ t-SNE is used to create a plot of the reduced features	The submission does 2 of the following: ✓ PCA model is created and used to reduce dimensions of the scaled dataset ✓ PCA model's explained variance is set to 90% (0.9) ✓ The shape of the reduced dataset is examined for reduction in number of features ✓ t-SNE model is created and used to reduce dimensions of the scaled dataset ✓ t-SNE is used to create a plot of the reduced features	The submission does 0-1 of the following: ✓ PCA model is created and used to reduce dimensions of the scaled dataset ✓ PCA model's explained variance is set to 90% (0.9) ✓ The shape of the reduced dataset is examined for reduction in number of features ✓ t-SNE model is created and used to reduce dimensions of the scaled dataset ✓ t-SNE is used to create a plot of the reduced features	
Cluster Analysis and Conclusion	The submission does all of the following: ✓ A K-means model is created ✓ A for-loop is used to create a list of inertias for each `k` from 1 to 10, inclusive ✓ A plot is created to examine any elbows that exist ✓ States a brief (1-2 sentence) conclusion on whether patients can be clustered together, and supports it with findings	The submission does 3 of the following: ✓ A K-means model is created ✓ A for-loop is used to create a list of inertias for each `k` from 1 to 10, inclusive ✓ A plot is created to examine any elbows that exist ✓ States a brief (1-2 sentence) conclusion on whether patients can be clustered together, and supports it with findings	The submission does 2 of the following: ✓ A K-means model is created ✓ A for-loop is used to create a list of inertias for each `k` from 1 to 10, inclusive ✓ A plot is created to examine any elbows that exist ✓ States a brief (1-2 sentence) conclusion on whether patients can be clustered together, and supports it with findings	The submission does 0-1 of the following: ✓ A K-means model is created ✓ A for-loop is used to create a list of inertias for each `k` from 1 to 10, inclusive ✓ A plot is created to examine any elbows that exist ✓ States a brief (1-2 sentence) conclusion on whether patients can be clustered together, and supports it with findings	