**Objective:**

The objective of this assessment is to evaluate your understanding and ability to apply clustering techniques to a real-world dataset.

**Dataset**

Use the Iris dataset available in the sklearn library.

**Key components to be fulfilled :**

**1. Loading and Preprocessing (1 marks)**

* Load the Iris dataset from sklearn.
* Drop the species column since this is a clustering problem.

**2.Clustering Algorithm Implementation (8 marks)**

* Implement the following two clustering algorithms:

**A) KMeans Clustering (4 marks)**

* Provide a brief description of how KMeans clustering works.
* Explain why KMeans clustering might be suitable for the Iris dataset.
* Apply KMeans clustering to the preprocessed Iris dataset and visualize the clusters.

**B) Hierarchical Clustering (4 marks)**

* Provide a brief description of how Hierarchical clustering works.
* Explain why Hierarchical clustering might be suitable for the Iris dataset.
* Apply Hierarchical clustering to the preprocessed Iris dataset and visualize the clusters.

**3.Timely Submission (1 mark)**

**Submission Guidelines**

* Provide your code in a Jupyter Notebook format and submit the GitHub link here.
* Ensure your explanations and answers are clear and concise.

**Total Score: 10**