**CMPE256- Assignment 6**

**Starbucks Hot Beverages Cluster Assignment**

Learning Objective: hierarchical clustering & Python Code

A newly opened Starbucks coffee shop manager wanted to increase loyal customer to his newly opened shop. As part of increasing customer loyalty, he collected data of sale of hot beverages vs popular times of a typical day - in this case Wednesday. The goal of the manager is to offer a sales coupons to customers based on time visit to the store.

He consulted you, data scientist, and wanted you to develop clustering (maximum three popular time slots of the day to offer coupon). How do you approach?

Part B: Please upload Cluster Source code & Output for Single Link, Complete Link and Average Link.

Chart, scatter chart

Description automatically generated

**Part A**

K-means clustering is done manually, PDF is uploaded on Github.

Github Link-

<https://github.com/charucheema/Assignment_6_Starbucks_Hot_Beverages_Cluster/blob/main/CMPE256_Assignment_6_Part_A%202.pdf>

**Part B**

Python program written on Google collab. PDF is uploaded in Github.

Github Link-

<https://github.com/charucheema/Assignment_6_Starbucks_Hot_Beverages_Cluster/blob/main/Starbucks_Hot_Beverages_Cluster.ipynb>