

1

Set the Goals

Define the output you want to create in a couple of sentences

The goal is to create a customer segmentation model using K-Means clustering on online retail data. The output will include a clustering model, visualizations of customer segments, and a short report describing the characteristics of each segment for business insights.

Add the skills that you want to learn by the end of the mentorship

1 Data Cleaning and preprocessing. 2 Applying K-Means clustering for customer segmentation. 3 Creating business-friendly visualizations. 4 Evaluating clustering performance using Elbow Method.

Add the key learnings you want

1 How to extract useful insights from customer purchasing data. 2 Understanding clustering and its applications in real-world businesses. 3 How customer segmentation supports marketing strategies and decision-making.

2

Major Constraints

Add the constraints you face in working on the tasks mentioned in the mentorship (for example: data cleaning, creating a content calendar)

1 Data cleaning may be time-consuming if the dataset contains many missing or incorrect values.

2 Selecting the right number of clusters is challenging and requires testing multiple algorithms.

3 Limited prior experience with ML libraries (Pandas, Scikit-learn, Seaborn), so I'll need to spend more time learning.

Find resources on your own that can help you and add below

1 Scikit-learn documentation for K-Means. 2 Matplotlib/Seaborn official guides for data visualization. 3 Blogs/articles explaining Elbow Method. 4 StatQuest with Josh Starmer - K-Means Clustering clearly explained, Link - <https://www.youtube.com/watch?v=H7Wz3338210>. You need to fill in the link. 5 K-Means Clustering Algorithm with Silhouette Coefficient - K Means Clustering — focused on silhouette score, useful to validate clusters, Link - <https://www.youtube.com/watch?v=H7Wz3338210>.

3

Add the schedule

Add the Schedule Below

Stage	Add the deadline by when you want to complete the corresponding steps	Tick when completed
Start of the Mentorship	September 26, 2025	<input checked="" type="checkbox"/>
Complete the Workplan and Submitted	September 27, 2025	<input checked="" type="checkbox"/>
Component 2	September 28, 2025	<input type="checkbox"/>
Component 3	September 29, 2025	<input type="checkbox"/>
Component 4	September 30, 2025	<input type="checkbox"/>
Component 5	October 1, 2025	<input type="checkbox"/>
Completed the Mentorship	October 2, 2025	<input type="checkbox"/>
Received the Feedback over email	October 5, 2025	<input type="checkbox"/>
Submitted the Final Draft	October 6, 2025	<input type="checkbox"/>

Add the Schedule for Mentor Sessions you want to attend

Stage	Date (Double click on the cell below and add a date)	Tick when completed
Mentor Session 1	September 28, 2025	<input type="checkbox"/>
One on One Call (Book one when you have specific queries)		<input type="checkbox"/>
Mentor Session 2		<input type="checkbox"/>
Mentor Session 3		<input type="checkbox"/>
One on One Call (Book one when you have specific queries)		<input type="checkbox"/>
Mentor Session 4		<input type="checkbox"/>