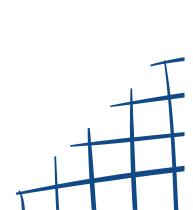


### Data Science



### **About Us**

At Digital Empowerment, we envision a future where youth are equipped with the skills, knowledge, and mindset needed to thrive in a rapidly evolving world. Our mission is to bridge the digital divide, foster leadership development, and enhance academic growth, empowering young minds to realize their full potential. To achieve this, we offer comprehensive virtual internships across various domains, providing students with invaluable hands-on experience and practical skills essential for success. Furthermore, we are committed to prestigious companies, helping to launch their careers and build a brighter future for assisting exceptional students in securing positions at themselves and future generations.

# www.digitalempowermentpakistan.com

### Instructions

- 1. Enhance your online presence by updating your LinkedIn profile.
- 2. For successful completion of the internship, complete one level (Level 1, 2, or 3) of the Web Development internship at your own pace.
- 3. Keep your tasks organized in a separate GitHub repository named "DEP" and share the link in the task submission form.
- 4. Utilize online resources like Google Search, tutorials, and videos to assist you in completing the tasks.



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### Task 1

## **Customer Segmentation for a Retail Store:**

- Objective: Use transaction data to segment customers based on their purchasing behavior.
- distinct groups of customers. This can help in targeted **Description:** Analyze historical sales data to identify marketing strategies, personalized promotions, and improving customer retention.
- Key Steps:
- Data cleaning and preprocessing
- Exploratory data analysis (EDA)
- Clustering algorithms (e.g., K-means)
- Visualization of customer segments

