



# **Computer and Information Sciences**

**23 - 27**

**6<sup>th</sup> Semester**

## **Internet Application Development**

**Lab 07**

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## Problem Statement:

**Problem 1)** Refer to Lab 1 (Problem 2(i) and (iii)), you have to incorporate *business intelligence* in your order processing system by adding *customer segmentation analysis*.

Customer segmentation is the process of dividing a company's customer base into smaller, distinct groups that share similar characteristics, such as demographics, behaviors, or preferences.

You are advised to do segmentation of *customer behavior* mainly considering *purchase habits*.

### *Suggested Methodology*

- a) Define and describe customer segments of your own choice: e.g. *Frequent Customer, Premium Customer,..*
- b) Draw a prototype interface on paper for segmentation analysis.
- c) Write SQL queries to generate segmentation data.
- d) Develop an interface in visual studio for segmentation analysis. Write code for a suitable handler which will execute queries developed in part (c) above and display segmented data to employees of the company?

*Assumption: Sufficient numbers of orders are present in database.*

**Problem 2)** How you can automate targeted marketing using above segments?  
[Hint: For all royal customers send them a complimentary gift through courier and a message of thanks through email/sms]

**Problem 3)** Develop test cases for your segmentation analysis platform?  
[Hints: (i) No customer in a particular segment  
(ii) Uneven distribution of customers across segments]