

# Assignment: Bank Customer Management System

## Introduction:

This assignment requires creating a console application to manage customer information for a bank. The application will provide functionalities for efficient customer data management.

## Requirements:

### Functionality:

- Admin Operations: The application should allow administrators to perform the following operations on customer data:
- Add New Customer: This includes capturing details like first name, last name, account number, address, and account balance.
- View Customer List: Display a list of all customers, with the option to sort by either ascending or descending order.
- Search and Edit: Allow searching for existing customers by last name and then editing their information.
- Delete Customer: Delete a customer record from the system.
- Find Negative Balance: Display a list of customers whose accounts have negative balance.
- Find Max/Min Balance: Identify the customer with the highest and lowest account balance.

### Data Storage:

Customer data will be stored and retrieved from a CSV file. Here is the sample of customers.csv:

```
1111;Lee;Peter;120 Mission Blvd, Fremont;10000
2222;Tonn;Tim;222 Warm Spring Blvd, Fremont;9990
3333;Wu;Nancy;333 Auto Mall Parkway, Fremont;7000
4444;Buck;Carl;555 Dixon Landing Blvd, Fremont;17700
```

### Architecture:

Implement a 3-layer architecture consisting of:

- Presentation Layer: Develop a menu-driven user interface (console-based) for interacting with the application.
  - Business Layer: This layer handles the core functionalities like managing customer objects, performing business logic (e.g., validating inputs), and enforcing business rules.
  - Data Layer: This layer manages reading and writing customer data to and from the CSV file.
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