

In this project, you will develop an imaginary bank application that can store customer's information in a bank. In the project, you can assume that your application can hold **maximum 200 accounts**.

In the program, your program should be able to read initial customer information from a text file. For example, this is a sample text file called **c:\\tmp\\data1.txt**

```
7777 Tom Smith 1000 1 10.00
8888 Alice Smith 2000 1 50.25
9999 Joe Otter 5000 1 100.25
```

Each line indicates one customer's information, including SSN (four digit number), first name, last name, account number (four digit number), account type (1: checking, 2: saving), and current balance. So, the first line shows that Tom Smith has a checking account with the current balance of \$10.00. Tom's SSN is 7777 and his account number is 1000. In the sample text file, there is three customers' information. In this project, you can assume that the text file has always correct format (= correct data).

This is another sample text file called **c:\\tmp\\data2.txt**

```
8888 Alice Smith 1000 2 100.00
7777 Tom Smith 3000 2 100.00
7777 Tom Smith 4000 1 125.75
7777 Monica Otter 7000 1 200.75
```

Now, the following present the sample run of the program. Read the sample run very carefully to identify the bank operations.

Sample Run:

```
Welcome to CSUMB Bank
Select your choice:
    1. Read customer data file
    2. Close an account
    3. Customer Info
    4. Bank Info
    5. Exit
1
Enter file name: c:\\tmp\\not_exist_file.txt
File doesn't exist. Check your file name again.
```

```
Select your choice:
    1. Read customer data file
    2. Close an account
    3. Customer Info
    4. Bank Info
    5. Exit
1
Enter file name: c:\\tmp\\data1.txt
Read data.....
    SSN: 7777
    Name: Tom Smith
    Account Number: 1000
```

Account Type: Checking
Balance: \$10.00

SSN: 8888
Name: Alice Smith
Account Number: 2000
Account Type: Checking
Balance: \$50.25

SSN: 9999
Name: Joe Otter
Account Number: 5000
Account Type: Checking
Balance: \$100.25

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

1

Enter file name: c:\\tmp\\data2.txt

Read data.....

SSN: 8888
Name: Alice Smith
Account Number: 1000
Account Type: Saving
Balance: \$100.00
Account Creation Failed - Account number 1000 already exists.

SSN: 7777
Name: Tom Smith
Account Number: 3000
Account Type: Saving
Balance: \$100.00

SSN: 7777
Name: Tom Smith
Account Number: 4000
Account Type: Checking
Balance: \$125.75

SSN: 7777
Name: Monica Otter
Account Number: 7000
Account Type: Checking
Balance: \$200.75
Account Creation Failed - A customer with SSN 7777 already exists.

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

4

Number of Accounts: 5
1000: \$10.00 (checking)
2000: \$50.25 (checking)

```

5000: $100.25 (checking)
3000: $100.00 (saving)
4000: $125.75 (checking)

Number of Customers: 3
Tom Smith: 7777 - 1000($10.00), 3000($100.00), 4000($125.75)
Alice Smith: 8888 - 2000($50.25)
Joe Otter: 9999 - 5000($100.25)

Total Balance: $386.25

Select your choice:
1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

2
Enter Account Number: 4000
Enter Customer SSN: 7777
Account Closed
Name: Tom Smith
Account Number: 4000
Account Type: Checking
Balance: $125.75

Select your choice:
1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

2
Enter Account Number: 7070
Incorrect account number.

Select your choice:
1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

2
Enter Account Number: 1000
Enter Customer SSN: 7000
Incorrect SSN

Select your choice:
1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

2
Enter Account Number: 1000
Enter Customer SSN: 7777

```

Account Closed

Name: Tom Smith
Account Number: 1000
Account Type: Checking
Balance: \$10.00

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

2

Enter Account Number: **5000**

Enter Customer SSN: **9999**

Account Closed

Name: Joe Otter
Account Number: 5000
Account Type: Checking
Balance: \$100.25

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

3

SSN(1)/Last Name(2)/Account Number(3): **1**

Enter SSN: **9999**

No customer with the SSN.

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

3

SSN(1)/Last Name(2)/Account Number(3): **1**

Enter SSN: **7777**

Name: Tom Smith
Account Number: 3000
Account Type: Saving
Balance: \$100.00

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

3

SSN(1)/Last Name(2)/Account Number(3): **2**

Enter a last name: **Smith**

Name: Alice Smith

Account Number: 2000
Account Type: Checking
Balance: \$50.25

Name: Tom Smith
Account Number: 3000
Account Type: Saving
Balance: \$100.00

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

3

SSN(1)/Last Name(2)/Account Number(3): **2**

Enter a last name: **Otter**

No customer with the last name.

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

3

SSN(1)/Last Name(2)/Account Number(3): **3**

Enter an account number: **1000**

No customer with the account number.

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

3

SSN(1)/Last Name(2)/Account Number(3): **3**

Enter an account number: **2000**

Name: Alice Smith
Account Number: 2000
Account Type: Checking
Balance: \$50.25

Select your choice:

1. Read customer data file
2. Close an account
3. Customer Info
4. Bank Info
5. Exit

5

Bye

