

CreditLimitException

Devi is a reputed data services offering company. It has many reputed Customers and the payment for each Customer is processed by raising an invoice through the Invoice Management System and the Customers are free to pay through Cash/Cheque/Credit cards.

Most Customers of Devi make payments for their outstanding invoices through credit cards. Now the Company has come up with a new requirement on to the invoice system and wanted a block of code that should get the credit card limit invoice id and payment amount from the user and every time a Customer makes a payment reduces the available credit limit. When the credit limit gets lower than the payable amount then the program should throw an exception. Intervene to help them write the code.

Create a class named **Invoice** with the following private member variable

- String invoice number
 - Double Total Amount
 - Integer attempt
1. Include appropriate getters and setters.
 2. Include 3 argument constructor with the following argument order **Invoice (String InvoiceNumber, String totalAmount, Integer attempt)**

Create a class named **CreditCard** with the following private member variable

- String cardNumber
 - Double cardLimit
1. Include appropriate getters and setters.
 2. Include 2 argument constructor with the following argument order **Creditcard (StringcardNumber, integer attempt)**

Create a class InvoiceBO class, and include the following member function

Method Name	Description
static void processPayment(Invoice invoice, Creditcard creditcard, Double amount)	method subtract the amount from cardLimit and totalAmount. It should also increment the attempt. If (totalamount-amount) and (cardLimit-amount) less than zero throw CreditLimitException.

Create a class called **Main** to test the above method.

Problem Specification:

1. Create a custom exception named as **CreditLimitException**.
2. Get invoice details and credit card details.

3. Process the payment according to total amount and credit card limit.
4. In case of limit exceeded throw an CreditLimitException

Input and Output Format:

[Note : Strictly adhere to the object oriented specifications given as a part of the problems statement. Use the same class names, method names and attribute names.]

Refer sample input and output for formatting specifications.

Note : All text in bold corresponds to input and rest corresponds to output.

Sample Input and Output 1:

Enter the invoice number:

3053658977

Enter the total invoice amount :

10000

Enter the credit card number :

3456988754523214

Enter the credit limit :

20000

Do you want to process invoice payment?(yes/no)

Yes

Enter the amount :

5000

Do you want to process invoice payment?(yes/no)

Yes

Enter the amount :

5000

Payment successfully done in 2 attempts

Sample Input and Output 2:

Enter the invoice number:

2054658970

Enter the total invoice amount :

20000

Enter the credit card number :

3420125648875469

Enter the credit limit :

10000

Do you want to process invoice payment?(yes/no)

Yes

Enter the amount :

1000

Exception accrued :CreditLimitException:Credit Limit Exceeded!

Sample Input and Output 3:

Enter the invoice number :

4567890321

Enter the total invoice amount :

10000

Enter the credit card number :

400392873345543

Enter the credit limit :

10000

Do you want to process invoice payment?(yes/no)

Yes

Enter the amount :

10000

Payment successfully done in 1 attempt

Don'ts :

1. Do not create packages for classes. Strictly adhere to the program structure given in the template code .
2. Do not use internet Explorer, highly recommended to use chrome browser to launch ebox platform.

3. Do not create multiple classes inside a single file. Create separate file for each class.