

# Class LineOfCredit

java.lang.Object  
    BankAccount  
        LineOfCredit

```
public class LineOfCredit
extends BankAccount
```

Line of credit class for CS1083 With a line of credit, the "balance" variable represents how much money the customer has borrowed. The balance is at most \$0.00, meaning no money is currently owed on this account. Or the balance can be a negative amount, indicating the amount currently owed.

## Field Summary

Fields		
Modifier and Type	Field	Description
private int	creditLimit	Credit limit in pennies - a negative number, indicating the maximum amount that can be borrowed on this line of credit.

## Constructor Summary

### Constructors

Constructor	Description
<b>LineOfCredit</b> (int accountNumberIn, int creditLimitIn)	Constructs a LineOfCredit object given an account number and credit limit.
<b>LineOfCredit</b> (int accountNumberIn, int creditLimitIn, int balanceIn)	Constructs a LineOfCredit object given an account number, initial balance, and credit limit.

Method Summary

All Methods	Instance Methods	Concrete Methods
Modifier and Type	Method	Description
void	<b>deposit</b> (int depositAmount)	Deposits money into this account, which represents a payment on the amount owed.
int	<b>getCreditLimit</b> ()	Accessor method for creditLimit.
void	<b>setCreditLimit</b> (int creditLimitIn)	Mutator method for creditLimit.
java.lang.String	<b>toString</b> ()	Supplies the account number, balance and credit limit as a String.
void	<b>withdraw</b> (int withdrawalAmount)	Withdraws money from this account, which represents borrowing money from the line of credit.

Methods inherited from class BankAccount
getAccountNumber, getBalance, setBalance

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

Field Detail

## creditLimit

```
private int creditLimit
```

Credit limit in pennies - a negative number, indicating the maximum amount that can be borrowed on this line of credit.

## Constructor Detail

### LineOfCredit

```
public LineOfCredit(int accountNumberIn,  
                    int creditLimitIn,  
                    int balanceIn)
```

Constructs a LineOfCredit object given an account number, initial balance, and credit limit. Remember, when you construct a subclass object, you are also creating an instance of the superclass. So in this case a LineOfCredit object is also a BankAccount object. Even though the LineOfCredit class only defines one instance variable (creditLimit), a LineOfCredit object inherits the accountNumber and balance variables from the BankAccount class. This happens automatically when you use "extends BankAccount" in the first line of this class definition.

#### Parameters:

`accountNumberIn` - The given account number.

`creditLimitIn` - The given credit limit in pennies (a negative amount).

`balanceIn` - The given balance in pennies (0 or a negative amount).

### LineOfCredit

```
public LineOfCredit(int accountNumberIn,  
                    int creditLimitIn)
```

Constructs a LineOfCredit object given an account number and credit limit.

#### Parameters:

`accountNumberIn` - The given account number.

`creditLimitIn` - The given credit limit in pennies (a negative amount).

## Method Detail

### getCreditLimit

```
public int getCreditLimit()
```

Accessor method for creditLimit.

**Returns:**

The credit limit in pennies.

### setCreditLimit

```
public void setCreditLimit(int creditLimitIn)
```

Mutator method for creditLimit.

**Parameters:**

`creditLimitIn` - The given credit limit in pennies.

### deposit

```
public void deposit(int depositAmount)  
           throws OverpaymentException
```

Deposits money into this account, which represents a payment on the amount owed. The deposit is performed only if the payment does not take the balance above \$0.00.

**Overrides:**

`deposit` in class [BankAccount](#)

**Parameters:**

`depositAmount` - The amount to be deposited in pennies.

**Throws:**

[OverpaymentException](#) - When the deposit attempts to increase the balance to be greater than \$0.00

**withdraw**

```
public void withdraw(int withdrawalAmount)
    throws InsufficientFundsException
```

Withdraws money from this account, which represents borrowing money from the line of credit. The withdrawal is performed only if the transaction does not take the balance below the credit limit.

**Overrides:**

[withdraw](#) in class [BankAccount](#)

**Parameters:**

`withdrawalAmount` - The amount to be withdrawn in pennies.

**Throws:**

[InsufficientFundsException](#) - When the withdrawal attempts to reduce the balance below the credit limit.

**toString**

```
public java.lang.String toString()
```

Supplies the account number, balance and credit limit as a String.

**Overrides:**

[toString](#) in class [BankAccount](#)

**Returns:**

A String representation of the account number, balance, and credit limit for this [LineOfCredit](#) instance. The balance and credit limit are formatted in currency format.