# JS Advanced - Exam: 08.04.2020

Exam problems for the [“JavaScript Advanced” course @ SoftUni](https://softuni.bg/courses/javascript-advanced).

## Problem 3. Bank

class Bank {  
 *// TODO: implement this class...*  
}

Your Task

Write a Class Bank, Which Implements the Following Functionality:

Functionality

#### constructor (bankName)

Receives 1 parameter at initialization of the class (bankName), and should be set as private property.

Should have these **2** properties:

* bankName - private property of type string
* allCustomers - initially an empty array

#### newCustomer (customer)

The customer is of type object {firstName, lastName, personalId}.

* Check if the customer is already a customer of the bank. If so you should throw an Error:

”{firstName} {lastName} is already our customer!”

* Otherwise this function should add the customer as new one and return the customer details.

#### depositMoney (personalId, amount)

Both the personalId and the amount are numbers.

* Check if the given **personalId** corresponds to a customer in the **customers** array, if not **throw a new error**:

“We have no customer with this ID!”

* Otherwise **add the amount** to the corresponding customer in a property named **totalMoney** and **store the transaction information** to this customer (for more clarity see the example below and the hints), then **return the total money** of the corresponding customer and a dollar sign:

“{totalMoney}$”

#### withdrawMoney (personalId, amount)

Both the personalId and the amount are numbers.

* Check if the given **personalId** corresponds to a customer in the **customers** array, if not **throw a new error**:

“We have no customer with this ID!”

* If there is a customer with the given personalId, check if the customer has enough money in his account, to withdraw the given amount. If the money is not enough throw a new error:

“{firstName} {lastName} does not have enough money to withdraw that amount!”

* Otherwise subtract the **amount** from the **totalMoney** of the customerand store the **transaction information** to this customer, then **return the total money** of the corresponding customer and a dollar sign:

“{totalMoney}$”

#### customerInfo (personalId)

The personalId is of type number.

* Check if the given **personalId** corresponds to a customer in the **customers** array, if not **throw a new error**:

“We have no customer with this ID!”

* Otherwise return the whole information for the customer in the following format:

**“Bank name: {bankName}**

**Customer name: {firstName} {lastName}**

**Customer ID: {personalId}**

**Total Money: {totalMoney}$**

**Transactions:**

**n. {firstName} {lastName} made deposit of {amount}$!**

**...**

1. {firstName} {lastName} withdrew {amount}$!
2. {firstName} {lastName} made deposit of {amount}$!”

**Transaction information** contains information about:

* **number** of the transaction in descending order;
* **names** (firstName, lastName);
* if the transaction is **deposit/withdraw**;
* **amount** of the transaction.

Examples

This is an example how the code is intended to be used:

|  |
| --- |
| Sample code usage |
| let bank = new Bank(‘SoftUni Bank’);  console.log(bank.newCustomer({firstName: ’Svetlin’, lastName: ’Nakov’, personalId: 6233267}));  console.log(bank.newCustomer({firstName: ’Mihaela’, lastName: ’Mileva’, personalId: 4151596}));  bank.depositMoney(6233267, 250);  console.log(bank.depositMoney(6233267, 250));  bank.depositMoney(4151596,555);  console.log(bank.withdrawMoney(6233267, 125));  console.log(bank.customerInfo(6233267)); |
| Corresponding output |
| **{ firstName: ‘Svetlin’, lastName: ‘Nakov’, personalId: 6233267 }**  **{ firstName: ‘Mihaela’, lastName: ‘Mileva’, personalId: 4151596 }**  500$  375$  Bank name: SoftUni Bank  Customer name: Svetlin Nakov  Customer ID: 6233267  Total Money: 375$  Transactions:  3. Svetlin Nakov withdrew 125$!  2. Svetlin Nakov made depostit of 250$!  1. Svetlin Nakov made depostit of 250$! |