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Course: Programming Patterns

Semester: Winter 2022

Programming Patterns Final Project Output

Main menu:

```
Select 1 for english or 2 for french.
1
Welcome to B.A.M.S. or the "Bank Account Management System"
Below, please enter the type of user you are
Enter 'T' for Teller, and 'C' for Client.
Finally, if you would like to close the program, enter 'X'. If you want to return to the main menu at any point, select 0
```

Teller Authentication:

```
Welcome to B.A.M.S. or the "Bank Account Management System"
Below, please enter the type of user you are
Enter 'T' for Teller, and 'C' for Client.
Finally, if you would like to close the program, enter 'X'. If you want to return to the main menu at any point, select 0
t
Enter Id
012931
Id invalid. Try again
lk
Please input only numbers.
1
Enter password
012312
Wrong password. Try again.
aowdkaw22134
Wrong password. Try again.
password
Welcome to the Teller system.
```

Client Authentication:

```
Welcome to B.A.M.S. or the "Bank Account Management System"
Below, please enter the type of user you are
Enter 'T' for Teller, and 'C' for Client.
Finally, if you would like to close the program, enter 'X'. If you want to return to the main menu at any point, select 0
c
Enter Client Id
lpo
Please input only numbers.
980
Id invalid. Try again
3
Welcome to the Client system Elly.
```

Teller Methods:

```
Welcome to the Teller system.
Here you'll find all the functions you may need.
If at any point you want to return to the welcome menu, simply type '0' in the input field
Please select a function (enter the corresponding number):
    1. read all Clients
    2. read all Accounts
    3. read all Transactions
    4. Cancel Transaction
    5. Read Clients
    6. Read Account
    7. Read Client Transaction
    8. Deactivate Account
    9. Create New Client
    10. Create New Account
    11. Create New Transactions
    12. Update Client Identification
    13. Update Client Address

Select:1
3  Elly     Parker       passport        88th avenue
8    JJ     Abrams       passport        92nd avenue
2  John      Neil        passport        77th avenue
9 Leeroy   Jenkins        passport       66th avenue
4 Maggie     Bell         passport        1st street
1   Max    Johnson       passport        5th avenue
10  Max    Johnson        passport       34th street
7 Maxxie    Maxxie        passport        8e rue
6  Nick     McDuff       passport       101st street
5   Pat     Stuart       passport        97th street

Please select a function (enter the corresponding number):
    1. read all Clients
    2. read all Accounts
    3. read all Transactions
    4. Cancel Transaction
    5. Read Clients
    6. Read Account
    7. Read Client Transaction
    8. Deactivate Account
    9. Create New Client
    10. Create New Account
    11. Create New Transactions
    12. Update Client Identification
    13. Update Client Address

Select:
```

```
Select:2
1     1     savings     01/24/2022        10000.00$         false
2     2     checking    01/24/2022         5000.00$         false
3     3     checking    01/24/2022        10000.00$         false
4     4     checking    01/24/2022         2000.00$         false
5     5      savings    01/24/2022         4000.00$         false
6     6     checking    01/24/2022         7000.00$         false
7     7      savings    01/24/2022       100000.00$         false
8     8      savings    01/24/2022        50000.00$         false
9     9     checking     1/24/2022        10000.00$         false
10    10     savings    01/24/2022        10000.00$         false
```

```
Select:3
1      1          2             Payment            2000.00$
2      3          2             Payment            1000.00$
3      5          1             Payment            3000.00$
4      3          6             Payment             400.00$
5      1          2             Payment            7000.00$
6      2          1             Payment             900.00$
7      8          4             Payment             200.00$
8      7         10             Payment              80.00$
9      6          7             Payment              90.00$
10     9          8              Payment           1900.00$
```

```
Select:4
Enter transaction id
10
canceled transaction
Please select a function (enter the corresponding number):
     1. read all Clients
     2. read all Accounts
     3. read all Transactions
     4. Cancel Transaction
     5. Read Clients
     6. Read Account
     7. Read Client Transaction
     8. Deactivate Account
     9. Create New Client
     10. Create New Account
     11. Create New Transactions
     12. Update Client Identification
     13. Update Client Address

Select:3
1      1          2          Payment            2000.00$
2      3          2          Payment            1000.00$
3      5          1          Payment            3000.00$
4      3          6          Payment             400.00$
5      1          2          Payment            7000.00$
6      2          1          Payment             900.00$
7      8          4          Payment             200.00$
8      7         10          Payment              80.00$
9      6          7          Payment              90.00$
```

```
Select:5
Enter client id
2
2  John        Neil         passport          77th avenue
```

```
Select:6
Enter account id
5
5     5    savings     01/24/2022          4000.00$              false
```

```
Select:7
Enter client id
l
Please input only numbers.
100000
Id invalid. Try again
7
9     6         7        Payment          90.00$
```

```
Select:2
1     1    savings     01/24/2022              0.00$              true
```

```
Select:8
Enter account id                          1
2                                         successfuly deactivated0.0
Cannot deactivate account with a balance of 0 true
```

```
1     1    savings     01/24/2022              0.00$              false
```

```
Select:9
Enter client's first name: King
Enter client's last name: Von
Enter client identification (no space): Passport
Enter client address: 64th-Street
Client created successfully
```

```
12  King        Von          Passport          64thStreet
```

```
Select:10
Enter Client Id
10
Enter account type. Choose between checking or savings account:
dw12
Wrong input. Try again.
2
Wrong input. Try again.
savings
Account successfuly created
Please select a function (enter the corresponding number):
    1. read all Clients
    2. read all Accounts
    3. read all Transactions
    4. Cancel Transaction
    5. Read Clients
    6. Read Account
    7. Read Client Transaction
    8. Deactivate Account
    9. Create New Client
    10. Create New Account
    11. Create New Transactions
    12. Update Client Identification
    13. Update Client Address

Select:2
1      1    savings    01/24/2022         10000.00$              false
2      2    checking   01/24/2022          5000.00$              false
3      3    checking   01/24/2022         10000.00$              false
4      4    checking   01/24/2022          2000.00$              false
5      5    savings    01/24/2022          4000.00$              false
6      6    checking   01/24/2022          7000.00$              false
7      7    savings    01/24/2022        100000.00$              false
8      8    savings    01/24/2022         50000.00$              false
9      9    checking    1/24/2022         10000.00$              false
10     10    savings    01/24/2022         10000.00$             false
11     10    savings    05/15/2022            0.00$               true
```

```
Select:11
Enter account id destination:
11
Id invalid. Try again
Enter account id destination:
10
Enter account id sender:
5
Enter transaction description:
payback
Enter transaction value in double decimal format:
70.50
Transaction successfuly created
Please select a function (enter the corresponding number):
    1. read all Clients
    2. read all Accounts
    3. read all Transactions
    4. Cancel Transaction
    5. Read Clients
    6. Read Account
    7. Read Client Transaction
    8. Deactivate Account
    9. Create New Client
    10. Create New Account
    11. Create New Transactions
    12. Update Client Identification
    13. Update Client Address

Select:2
1    1    savings    01/24/2022         10000.00$              false
2    2    checking   01/24/2022          5000.00$              false
3    3    checking   01/24/2022         10000.00$              false
4    4    checking   01/24/2022          2000.00$              false
5    5    savings    01/24/2022          3929.50$              false
6    6    checking   01/24/2022          7000.00$              false
7    7    savings    01/24/2022        100000.00$              false
8    8    savings    01/24/2022         50000.00$              false
9    9    checking    1/24/2022         10000.00$              false
10   10   savings    01/24/2022         10070.50$              false
11   10   savings    05/15/2022             0.00$               true
```

```
Select:11
Enter account id destination:
10
Enter account id sender:
9
Enter transaction description:
ChrstianRonaldo
Enter transaction value in double decimal format:
100.00
Transaction successfuly created
```

```
11    10         9 ChrstianRonaldo          100.00$
 8     8    savings   01/24/2022       30000.00$              true
 9     9    checking   1/24/2022        9900.00$              true
10    10    savings   01/24/2022       10100.00$              true
```

```
Select:12
Enter Client Id
1
Enter client identification (no space):
CarInsurance
Update Successful!
```

```
1   Max    Johnson    CarInsurance         5th avenue
```

```
Select:13
Enter Client Id
1
Enter client address (no space):
63rdAvenue
```

```
1   Max    Johnson    63rdAvenue           5th avenue
```

Exit teller

```
Select:0
Welcome to B.A.M.S. or the "Bank Account Management System"
Below, please enter the type of user you are
Enter 'T' for Teller, and 'C' for Client.
Finally, if you would like to close the program, enter 'X'. If you want to return to the main menu at any point, select 0
```
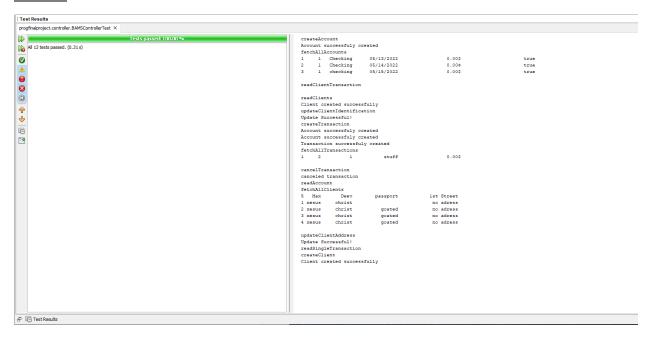
Client Authentication:

```
Welcome to B.A.M.S. or the "Bank Account Management System"
Below, please enter the type of user you are
Enter 'T' for Teller, and 'C' for Client.
Finally, if you would like to close the program, enter 'X'. If you want to return to the main menu at any point, select 0
c
Enter Client Id
10
Welcome to the Client system Max.
Here you'll find all the functions you may need.
If at any point you want to return to the welcome menu, simply type '0' in the input field
Please select a function (enter the corresponding number):
    1. Read Client
    2. Client Transaction
    3. Read Account
Select:
```

```
Please select a function (enter the corresponding number):
    1. Read Client
    2. Client Transaction
    3. Read Account
Select:1

10   Max     Johnson         passport          34th street

Please select a function (enter the corresponding number):
    1. Read Client
    2. Client Transaction
    3. Read Account
Select:2

8    7        10         Payment               80.00$

Please select a function (enter the corresponding number):
    1. Read Client
    2. Client Transaction
    3. Read Account
Select:3

10   10    savings    01/24/2022           10100.00$                      true

Please select a function (enter the corresponding number):
    1. Read Client
    2. Client Transaction
    3. Read Account
```

Unit test

Test Results

progfinalproject.controller.BAMSControllerTest ✕

Tests passed: 100.00 %

All 13 tests passed. (0.31 s)

```
createAccount
Account successfuly created
fetchAllAccounts
1    1    Checking    05/13/2022          0.00$               true
2    1    Checking    05/14/2022          0.00$               true
3    1    checking    05/15/2022          0.00$               true

readClientTransaction

readClients
Client created successfully
updateClientIdentification
Update Successful!
createTransaction
Account successfuly created
Account successfuly created
Transaction successfuly created
fetchAllTransactions
1    2         1              stuff          0.00$

cancelTransaction
canceled transaction
readAccount
fetchAllClients
5    Max      Deev      passport      1st Street
1 xesus   christ                     no adress
2 xesus   christ        goated       no adress
3 xesus   christ        goated       no adress
4 xesus   christ        goated       no adress

updateClientAddress
Update Successful!
readSingleTransaction
createClient
Client created successfully
```

Test Results

French Locale:

```
Select 1 for english or 2 for french.
2
Bienvenue � B.A.M.S. ou le "Bank Account Management System".
Ci-dessous, veuillez entrer le type d'utilisateur que vous �tes
Entrez 'T' pour Teller, et 'C' pour Client.
Enfin, si vous souhaitez fermer le programme, entrez 'X'. Si vous souhaitez revenir au menu principal � tout moment, s�lectionnez 0.
c
Entrez l'identit� du client
1
Bienvenue dans le syst�me Client Max.
Vous trouverez ici toutes les fonctions dont vous pouvez avoir besoin.
Si vous souhaitez � tout moment revenir au menu d'accueil, tapez simplement '0' dans le champ de saisie.
Veuillez s�lectionner une fonction (entrez le num�ro correspondant) :
    1. Lire le client
    2. Transaction du client
    3. Lire le compte
S�lectionner :1


1   Max     Johnson     63rdAvenue          5th avenue

Veuillez s�lectionner une fonction (entrez le num�ro correspondant) :
    1. Lire le client
    2. Transaction du client
    3. Lire le compte
S�lectionner :2


3    5        1       Payment             3000.00$
6    2        1       Payment              900.00$

Veuillez s�lectionner une fonction (entrez le num�ro correspondant) :
    1. Lire le client
    2. Transaction du client
    3. Lire le compte
S�lectionner :4

Veuillez s�lectionner une fonction (entrez le num�ro correspondant) :
    1. Lire le client
    2. Transaction du client
    3. Lire le compte
S�lectionner :
```

```
Bienvenue � B.A.M.S. ou le "Bank Account Management System".
Ci-dessous, veuillez entrer le type d'utilisateur que vous �tes
Entrez 'T' pour Teller, et 'C' pour Client.
Enfin, si vous souhaitez fermer le programme, entrez 'X'. Si vous souhaitez revenir au menu principal � tout moment, s�lectionnez 0.
t
Entrez l'Id
1
Entrez le mot de passe
password
Bienvenue dans le syst�me Teller.
Vous trouverez ici toutes les fonctions dont vous pouvez avoir besoin.
Si vous souhaitez � tout moment revenir au menu d'accueil, tapez simplement '0' dans le champ de saisie.
Veuillez s�lectionner une fonction (entrez le num�ro correspondant) :
    1. lire tous les clients
    2. lire tous les comptes
    3. lire toutes les transactions
    4. Annuler une transaction
    5. Lire les clients
    6. Lire le compte
    7. Lire la transaction du client
    8. D�sactiver le compte
    9. Cr�er un nouveau client
    10. Cr�er un nouveau compte
    11. Cr�er de nouvelles transactions
    12. Mettre � jour l'identification du client
    13. Mise � jour de l'adresse du client
```