

Lab8 Array

Account.java Bank.java Customer.java *Customer2.java

```
1 //บทที่8
2 public class Bank {
3     private Account acct[];
4     private int numAcct;
5     public Bank() {
6         acct = new Account[10];
7     }
8     public void addAccount(Account account) {
9         acct[numAcct] = account;
10        numAcct++;
11    }
12    public Account getAccount(int index) {
13        return acct[index];
14    }
15    public int getNumAccount() {
16        return numAcct;
17    }
18    public static void main(String[] args) {
19        Bank bank = new Bank();
20        bank.addAccount(new Account(100));
21        Account account = new Account();
22        bank.getAccount(0).withdraw(50);
23        account = bank.getAccount(0);
24
25        account.showBalance();
26        System.out.println(bank.getNumAccount());
27    }
```

Account.java *Customer2.java Customer3.java

```
1 //chapter8 ex2 continue
2 public class Customer2 {
3     public static void main(String[] args){
4         Account acct1 = new Account(5000);
5         Account acct2 = new Account(3000);
6
7         Customer cust;
8         cust = new Customer("Somchi", "Sommit");
9         cust.addAccount(acct1);
10
11        cust.showName();
12        cust.getAccount(cust.getNumOfAccount()-1).deposit(100);
13        cust.getAccount(cust.getNumOfAccount()-1).withdraw(50);
14        cust.getAccount(cust.getNumOfAccount()-1).showBalance();
15
16        cust.addAccount(acct2);
17        cust.getAccount(cust.getNumOfAccount()-1).deposit(30);
18        cust.getAccount(cust.getNumOfAccount()-1).withdraw(20);
19        cust.getAccount(cust.getNumOfAccount()-1).showBalance();
20
21
22
23
24        // cust.setAccount(myAccount);
25        // cust.getAccount().withdraw(4300);
26        // cust.getAccount().showBalance();
27        // ((CheckingAccount)cust.getAccount()).showCredit();
28        //
29        // cust.getAccount().deposit(4200);
30        // cust.getAccount().showBalance();
31        // ((CheckingAccount)cust.getAccount()).showCredit();
32        // System.out.println(cust.getFirstName()+" "+cust.getLastName());
33    }
34 }
```

Account.java Customer.java *Customer2.java Customer3.java

```
1 //Chapeter8 ex1
2 public class Customer {
3     private String firstName;
4     private String lastName;
5     private Account acct[];
6     private int numOfAccount;
7
8     public Customer(){
9         acct = new Account[5];
10    }
11    public Customer(String firstName, String lastName){
12        this.firstName = firstName;
13        this.lastName = lastName;
14        acct = new Account[5];
15    }
16
17    public void setCustomer(String firstName, String lastName){
18        this.firstName = firstName;
19        this.lastName = lastName;
20    }
21
22    }
23    public void showName() {
24        System.out.print(firstName+" "+ lastName+"\n");
25    }
26    public void setFirstName(String firstName){
27        this.firstName = firstName;
28    }
29    public void setLastName(String lastName){
30        this.lastName = lastName;
31    }
32    public void addAccount(Account account) {
33        this.acct[numOfAccount] = account;
34        numOfAccount++;
35    }
36    public Account getAccount(int index) {
37        return acct[index];
38    }
39    public String getFirstName(){
40        return this.firstName;
41    }
42    public String getLastName(){
43        return this.lastName;
44    }
45    public int getNumOfAccount() {
46        return numOfAccount;
47    }
48
49 }
50 }
```

FileManager.java Instruction.java notepad.java Customer3.java

```
1 import java.util.ArrayList;
2
3 //chapter8 ex3
4 public class Customer3 {
5     private String firstName;
6     private String lastName;
7     private ArrayList<Account> acct;
8     private int numOfAccount;
9
10    public Customer3(){
11        acct = new ArrayList<>();
12    }
13    public Customer3(String firstName, String lastName){
14        this.firstName = firstName;
15        this.lastName = lastName;
16        acct = new ArrayList<>();
17    }
18    public void setCustomer(String firstName, String lastName){
19        this.firstName = firstName;
20        this.lastName = lastName;
21    }
22
23    }
24    public void setFirstName(String firstName){
25        this.firstName = firstName;
26    }
27    public void setLastName(String lastName){
28        this.lastName = lastName;
29    }
30    }
31    public void addAccount(Account account) {
32        this.acct.add(account);
33        numOfAccount++;
34    }
35    public Account getAccount(int index) {
36        return acct.get(index);
37    }
38    public String getFirstName(){
39        return this.firstName;
40    }
41    public String getLastName(){
42        return this.lastName;
43    }
44    public int getNumOfAccount() {
45        return acct.size();
46    }
47
48    public static void main(String[] args) {
49        Account acct1 = new Account(5000);
50        Account acct2 = new Account(3000);
51
52        Customer3 cust;
53        cust = new Customer3("Somchi", "Sommit");
54        cust.addAccount(acct1);
55
56        cust.getAccount(cust.getNumOfAccount()-1).deposit(100);
57        cust.getAccount(cust.getNumOfAccount()-1).withdraw(50);
58        cust.getAccount(cust.getNumOfAccount()-1).showBalance();
59
60        cust.addAccount(acct2);
61        cust.getAccount(cust.getNumOfAccount()-1).deposit(30);
62        cust.getAccount(cust.getNumOfAccount()-1).withdraw(20);
63        cust.getAccount(cust.getNumOfAccount()-1).showBalance();
64    }
65
66 }
```

Account.java

```
1 //Chapter4 Ex3
2 public class Account {
3     protected double balance;
4     public Account(){
5
6     }
7
8     public Account(double amount){
9
10        this.balance = amount;
11    }
12    public void deposit(double amount){
13        this.balance += amount;
14    }
15    public boolean withdraw(double amount){
16        if(this.balance >= amount){
17            this.balance -= amount;
18            return true;
19        }
20        return false;
21    }
22    public double getBalance(){
23        return this.balance;
24    }
25    public void showBalance(){
26
27        System.out.println(this.balance);
28    }
29    public static void main(String[] args){
30        Account account = new Account(10);
31        account.deposit(50.2);
32        account.deposit(20);
33        account.showBalance();
34    }
35 }
36 }
```