

Informatics Institute of Technology

Department of Computing

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1. INTRODUCTION

This is a JAVA console-based application developed for InterBanking Pty. The purpose of this system is to produce a next generation customer and account management system. This application has been developed for employees of the bank to add new customer accounts and bank accounts and is very user friendly serving its purpose to the fullest.

2. IMPLEMENTATION

```
package com.company;

import java.util.ArrayList;
import java.util.Scanner;

public class Main {
    public static String empUsername = "Dinithi";
    public static String emppsdword = "123";
    public static String customerfName;
    public static String customerlName;
    public static String customerAddress;
    public static String phone;
    public static String membershipNo;
    public static String password;
    public static int accountNo;
    public static double accountBal;
    public static String userChoice;
    public static ArrayList<Main> Customer_Account_Details = new ArrayList<Main> ();
    public Main(String customerfName, String customerlName, String customerAddress,
String phone, String membershipNo, String password,int accountNo,double accountBal) {
        this.customerfName = customerfName;
        this.customerlName = customerlName;
        this.customerAddress= Main.customerAddress;
        this.phone= Main.phone;
        this.membershipNo = membershipNo;
        this.password=password;
        this.accountNo=accountNo;
        this.accountBal=accountBal;
    }
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        String option = null;
        System.out.println("*****Welcome to Interbanking Pty.*****");
        System.out.println("*****Account Management Unit*****");

        do {
            System.out.println("Press \"0\" to login: ");
            option=sc.next ();
            if(option.equals ("0")){
                System.out.println("*****Login*****");
                System.out.println("Enter Username: ");
                String empName = sc.next ();
                System.out.println ("Enter Password: ");
                String empPassword = sc.next ();

                if((empName.equals (empUsername))&& (empPassword.equals (emppsdword))){

                    System.out.println("*****MAIN MENU*****");
                    System.out.println ("-----\n");
                    System.out.println ("1. Create a new Customer Account");
                    System.out.println ("2. Create a Bank Account.");
                    System.out.println ("3. Display Bank Account Details.");

                    System.out.println("-----\n");

                }else
                {System.out.println ("Incorrect username or password. To try again press \"t\"");
                    option=sc.next ();}
            } while(option.equalsIgnoreCase ("t"));

        } do {
            System.out.println ("Enter your choice: ");
            option = sc.next ();
            if (option.equals ("1")) {
                System.out.println ("*****Create a new customer
account.*****");
            }
        }
    }
}
```

```

System.out.println
("_____");
System.out.println ("Enter customer's first name: ");
customerfName = sc.next ();
System.out.println ("Enter customer's last name: ");
customerlName = sc.next ();
System.out.println("Enter customer's current home address: ");
customerAddress = sc.next ();
System.out.println("Enter customer's phone number: ");
phone = sc.next ();
System.out.println ("Enter Membership Number for customer: ");
membershipNo=sc.next ();
System.out.println("Enter a password for customer: ");
password=sc.next ();

Main customers = new Main (customerfName, customerlName,
customerAddress,phone,membershipNo,password,accountNo,accountBal);
Customer_Account_Details.add (customers);
}

if (option.equals ("2")) {
System.out.println ("*****Create a bank account.*****");
System.out.println("Enter customer's first name: ");
String first = sc.next ();
System.out.println("Enter customer's last name: ");
String last = sc.next ();
for (int i=0; i<Customer_Account_Details.size ();i++){
    if ((Customer_Account_Details.get (i).customerfName.equalsIgnoreCase
(first)) && (Customer_Account_Details.get
(i).customerlName.equalsIgnoreCase (last))) {
        System.out.println("*****Generate bank account for " + first + " "
+ last+"*****");
        System.out.println
("_____\\n");
        System.out.println("Enter " + first + " " + last + " account number(4
digits): ");
        accountNo = sc.nextInt ();
        System.out.println("Enter " + first + " " + last + " account balance in
dollars($): ");
        accountBal = sc.nextDouble ();
    }else{
        System.out.println("Customer details mismatch. Try again.");
    }
}
}

if (option.equals ("3")) {
System.out.println ("*****Display bank account
details.*****");
System.out.println
("_____\\n");
System.out.println("Enter customer's account number: ");
int num = sc.nextInt ();
System.out.println("Enter customer's first name: ");
String name = sc.next ();
for (int i=0; i<Customer_Account_Details.size ();i++) {
    if ((Customer_Account_Details.get (i).accountNo==num) &&
Customer_Account_Details.get (i).customerfName.equalsIgnoreCase (name)){
        System.out.println("Account holder's full name: " +
Customer_Account_Details.get (i).customerfName+ " "
+ Customer_Account_Details.get (i).customerlName);
        System.out.println("Account holder's contact number: " +
Customer_Account_Details.get (i).phone);
        System.out.println("Account Balance: " + "$ " +
Customer_Account_Details.get (i).accountBal);
    }else{
        System.out.println("Customer details mismatch. Try again.");
    }
}
}
}

```

```
        System.out.println("Do you want to continue? If YES press \"y\", and \"n\" if NO.");
        option = sc.next ();
    }while(option.equalsIgnoreCase ("y"));

    if(option.equalsIgnoreCase ("n")){
        System.out.println("Thank you for your valuable service!");
        System.exit (0);}
    }
}
```

3. SCREENSHOTS

- Employee Login and Main Menu.

```
"C:\Program Files\Java\jdk-9.0.1\bin\java" "-javaagent:C:\Progr
*****Welcome to Interbanking Pty.*****
*****Account Management Unit*****
Press "0" to login:
0
*****Login*****
Enter Username:
Dinithi
Enter Password:
1
Incorrect username or password. To try again press "t"
t
Press "0" to login:
0
*****Login*****
Enter Username:
Dinithi
Enter Password:
123
*****MAIN MENU*****
-----
1. Create a new Customer Account
2. Create a Bank Account.
3. Display Bank Account Details.
-----
Enter your choice:
|
```

- Create new customer account.

```

Enter your choice:
1
*****Create a new customer account.*****

Enter customer's first name:
Dilini
Enter customer's last name:
Weerasinghe
Enter customer's current home address:
No.123,Homagama.
Enter customer's phone number:
0773445335
Enter Membership Number for customer:
W4553
Enter a password for customer:
QUIN1
Do you want to continue? If YES press "y", and "n" if NO.
y
Enter your choice:
|

```

- Create new bank account for particular customer.

```

Enter your choice:
2
*****Create a bank account.*****
Enter customer's first name:
Dilini
Enter customer's last name:
Weerasingh
Customer details mismatch. Try again.
Do you want to continue? If YES press "y", and "n" if NO.
y
Enter your choice:
2
*****Create a bank account.*****
Enter customer's first name:
Dilini
Enter customer's last name:
Weerasinghe
*****Generate bank account for Dilini Weerasinghe*****

Enter Dilini Weerasinghe account number(4 digits):
4764
Enter Dilini Weerasinghe account balance in dollars($):
5000
Do you want to continue? If YES press "y", and "n" if NO.
y
Enter your choice:
|

```


- Display particular bank account details when account number is given to program.

```
Enter your choice:
3
*****Display bank account details.*****

Enter customer's account number:
4764
Enter customer's first name:
Dilini
Account holder's full name: Dilini Weerasinghe
Account holder's contact number: 0773445335
Account Balance: $ 5000.0
Do you want to continue? If YES press "y", and "n" if NO.
|
```

- Log out of system.

```
Do you want to continue? If YES press "y", and "n" if NO.
n
Thank you for your valuable service!

Process finished with exit code 0
|
```

4. CONCLUSION

All the required functions work efficiently, and the input data is stored in an array. The data storage is temporary, and this could be further improved.