GEDİZUNIVERSITY

Faculty of Engineering and Architecture

Computer Engineering Department

COM 102 – OBJECT ORIENTED PROGRAMMING

DURING LAB Assignment#9

Academic Year: Spring 2016
Date : May 17, 2016
Course Instructor: Asst. Prof.Dr. I.Furkan INCE
Course Assistant: Res.Asst. Arzum KARATAS &Res.Asst. Feyza GALIP

1- General Exercises:

Write some applications to show some exceptions in Java.

2- Write a Java Application:

The source code given addresses a checking bank account situation that has an account number, current balance, and abilities to deposit and draw money. Initial amount of money for a newly created account is 1000 TL. Deposit ability adds amount of money to the actual balance while withdraw ability decreases the actual balance by amount of money specifed as a parameter. The important point here is that overdraft is not allowed. If a user tries to draw more money than his balance amount, it leads to a specific exception named "InsufficientBalanceException" that extends Exception class. In this lab, your task is to set up an exception handling mechanism for the source code following.

CheckingBankAccount.java

```
public class CheckingBankAccount {

    private double balance;
    private final String accountNumber;

    public CheckingBankAccount(String accountNumber, double balance){
        this.accountNumber = accountNumber;
        this.balance = balance;
    }

    public void deposit(double amount){
        balance += amount;
    }

    public void withdraw(double amount){
        if(amount <= balance){
            balance -= amount;
        } else{
            double overdraft = amount - balance;
        }
    }
```

```
    public double getBalance(){
        return balance;
    }

    public String getAccountNumber(){
        return accountNumber;
    }

    public void setBalance(double balance) {
        this.balance = balance;
    }
}
```

CheckingBankAccountTest.java

```
import java.util.InputMismatchException;
import java.util.Scanner;

public class CheckingBankAccountTest {
    static Scanner input;
    static CheckingBankAccount account;

    public static void main(String [] args){

        input = new Scanner(System.in);
        int choice = 0;
        final int exit = -1;
        final double initialAmount = 1000;
        account = new CheckingBankAccount("TR1234-5647-8523-
1632",initialAmount);

        do{
             showMenu();
             choice = input.nextInt();
             evaluateChoice(choice);

        }while(choice!= exit);

        System.out.println("Program is terminated!");

    }


    private static void evaluateChoice(int choice) {

        switch(choice){

        case 1: System.out.println("Please enter the amount that you deposit");

                double amount = input.nextDouble();
                account.deposit(amount); break;

        case 2: System.out.println("Please enter the amount that you draw");

                double amount = input.nextDouble();
                account.withdraw(amount); break;

        case 3: System.out.printf("Current Balance:%.2f",account.getBalance());
        break;

        case -1:System.out.println("Exiting ..."); break;
```

```
        default: System.out.println("You are allowed to enter only 1,2,3
or -1 "); break;
      } }


    private static void showMenu() {
        System.out.println("\n*****************************************\nO P
E R A T I O N S\n*****************************************");
        System.out.println("1- Deposit Money");
        System.out.println("2- Draw Money");
        System.out.println("3- Show Current Balance");
        System.out.println("-1 Exit ");
        System.out.println("\nPlease enter your choice [1,2,3, -1] :");

    }
}
```