**Java Core Assignment 4 - TanayaJadhav**

**Exception Handling**

**1)** import java.io.IOException;  
  
public class ThrowDemo {  
  
 public static void main(String[] args) {  
 int a = 0, b = 10;  
 try {  
 int c = b/a;  
 System.*out*.println("Value of c is : "+ c);  
 } catch (Exception e) {  
 e.printStackTrace();  
 }  
 finally {  
 System.*out*.println("Dont worry tanaya,,, Im still executing");  
 }  
 }  
 }

**Output:-**

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=56516:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava ThrowDemo

java.lang.ArithmeticException: / by zero

at ThrowDemo.main(ThrowDemo.java:8)

Dont worry tanaya,,, Im still executing

Process finished with exit code 0

2) import java.io.IOException;  
  
public class ThrowDemo {  
  
 public static void main(String[] args) {  
 int a = 0, b = 10;  
 try {  
 int c = b/a;  
 System.*out*.println("Value of c is : "+ c);  
 } catch (Exception e) {  
 e.printStackTrace();  
 throw new UnsupportedOperationException();  
 }  
 finally {  
 System.*out*.println("Dont worry tanaya,,, Im still executing");  
 }  
 }  
 }

Output:-

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=50423:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava ThrowDemo

java.lang.ArithmeticException: / by zero

at ThrowDemo.main(ThrowDemo.java:8)

Exception in thread "main" java.lang.UnsupportedOperationException

at ThrowDemo.main(ThrowDemo.java:12)

Dont worry tanaya,,, Im still executing

Process finished with exit code 1

3) import savingaccount.IllegalBankTransaction;  
  
public class SavingAccount  
{  
 private double balance;  
 private double interest;  
 public SavingAccount()  
 {  
 balance = 0;  
 interest = 0;  
 }  
 public SavingAccount(double initialBalance, double initialInterest)  
 {  
 balance = initialBalance;  
 interest = initialInterest;  
 }  
 public void deposit(double amount)  
 {  
 balance = balance + amount;  
 }  
  
 public void withdraw(double amount) throws IllegalBankTransaction {  
 if ( (amount)<0)  
 throw new IllegalBankTransaction ();  
  
 balance = balance - amount;  
 }  
  
 private boolean IsValidAmount(double amount) {  
 return amount > 0;  
 }  
  
  
 public void addInterest()  
 {  
 balance = balance + balance \* interest;  
 }  
  
 public double getBalance()  
 {  
 return balance;  
 }  
  
  
}

import savingaccount. IllegalBankTransaction;  
  
public class Savingmain {  
 public static void main(String[] args) throws IllegalBankTransaction {  
 SavingAccount TanayaSavings = new SavingAccount(1000, 0.10);  
 TanayaSavings.withdraw(-1000);  
 TanayaSavings.deposit(1400);  
 TanayaSavings.addInterest();  
 System.*out*.println(TanayaSavings.getBalance());  
  
  
 }  
}

output:=

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=57095:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Savingmain

Exception in thread "main" SavingAccount. IllegalBankTransaction

at SavingAccount.withdraw(SavingAccount.java:27)

at Savingmain.main(Savingmain.java:7)

Process finished with exit code 1

Process finished with exit code 1

import savingaccount.InsufficientBalanceException;  
  
import java.util.Objects;  
  
public class SavingAccount  
{  
 private double balance;  
 private double interest;  
 private double amount;  
 public SavingAccount()  
 {  
 balance = 0;  
 interest = 0;  
 amount=0;  
 }  
 public SavingAccount(double initialBalance, double initialInterest)  
 {  
 balance = initialBalance;  
 interest = initialInterest;  
 }  
 public void deposit(double amount)  
 {  
 balance = balance + amount;  
 }  
  
 public void withdraw(double amount) throws InsufficientBalanceException {  
   
 if (!IsSufficientAmount(amount))  
 throw new InsufficientBalanceException();  
  
 balance = balance - amount;  
 }  
  
 private boolean IsSufficientAmount(double amount) {  
  
 Object account = null;  
 return balance >= amount;  
 }  
 private boolean IsValidAmount(double amount) {  
 return amount > 0;  
 }  
  
  
 public void addInterest()  
 {  
 balance = balance + balance \* interest;  
 }  
  
 public double getBalance()  
 {  
 return balance;  
 }  
  
  
}

import savingaccount.InsufficientBalanceException;  
  
public class Savingmain {  
 public static void main(String[] args) throws InsufficientBalanceException {  
 SavingAccount TanayaSavings = new SavingAccount(1000, 0.10);  
 TanayaSavings.withdraw(3000);  
 TanayaSavings.deposit(1400);  
 TanayaSavings.addInterest();  
 System.*out*.println(TanayaSavings.getBalance());  
  
  
 }  
}

Output:-

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=62855:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Savingmain

Exception in thread "main" savingaccount.InsufficientBalanceException

at SavingAccount.withdraw(SavingAccount.java:29)

at Savingmain.main(Savingmain.java:6)

Process finished with exit code 1