

EXCEPTION HANDLING ASSIGNMENT

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1) Arithmetic Exception:

```
1 import java.util.Scanner;
2
3 public class Exception {
4
5     public static void main(String[] args) {
6
7         Scanner scanner = new Scanner(System.in);
8         System.out.println("Enter num1:");
9         int num1=scanner.nextInt();
10
11         System.out.println("Enter num2:");
12         int num2=scanner.nextInt();
13
14         scanner.close();
15         try
16         {
17             int result = num1/num2;
18             System.out.println(result);
19         }
20         catch (ArithmeticException arithmeticException)
21         {
22             System.out.println("Cannot divide an integer with zero. ");
23         }
24
25     }
26
27 }
28
```

Problems @ Javadoc Declaration Console E

<terminated> Exception [Java Application] C:\Program Files\Ja

Enter num1:

10

Enter num2:

0

Cannot divide an integer with zero.

2)Arithmetic Exception raising UnsupportedOperationException:

```
1 import java.util.Scanner;
2
3 public class Throwexception extends Exception{
4     public static void main(String[] args) {
5         Scanner scanner=new Scanner(System.in);
6         System.out.println("Enter num1:");
7         int num1=scanner.nextInt();
8         System.out.println("Enter num2:");
9         int num2=scanner.nextInt();
10        scanner.close();
11        try {
12            int result = num1/num2;
13            System.out.println(result);
14        }catch(Exception e) {
15            e.printStackTrace();
16            throw new UnsupportedOperationException();
17        }
18        finally {
19            System.out.println("You can't divide integer by 0");
20        }
21
22
23
24
25    }
26 }
```

Problems @ Javadoc Declaration Console Error Log

<terminated> Throwexception [Java Application] C:\Program Files\Java\jdk-13.0.2\bin\javaw.exe

Enter num1:
10
Enter num2:
0
java.lang.ArithmeticException: / by zero
You can't divide integer by 0
at Throwexception.main(Throwexception.java:12)
Exception in thread "main" java.lang.UnsupportedOperationException

3a) InsufficientBalanceException:

```
1 class InsufficientBalanceException extends Exception
2 {
3     private double amount;
4     public InsufficientBalanceException(double amount)
5     {
6         this.amount = amount;
7     }
8     public double getAmount()
9     {
10         return amount;
11     }
12 }
13
14 class Account
15 {
16     long id;
17     private double balance;
18
19     public Account(int id) {
20         this.id=id;
21     }
22
23     public void deposit(double amount)
24     {
25         balance += amount;
26     }
27     public void withdraw(double amount) throws InsufficientBalanceException
28     {
29         if(amount < balance)
30         {
31             balance -= amount;
32
33         }
34         else {
35             double needs = amount - balance;
36             throw new InsufficientBalanceException(needs);
37         }
38     }
39     public double getBalance() {
40         return balance;
41     }
42 }
43
44 public class Main{
45     public static void main(String[] args) {
46         int id;
47         Account a = new Account(id=123456789);
48         System.out.println("Account id "+id);
49         System.out.println("Depositing Rs 2000...");
50         a.deposit(2000);
51         try {
52             System.out.println("Withdrawing Rs 2100...");
53             a.withdraw(2100);
54         }
55         catch(InsufficientBalanceException e) {
56             System.out.println("Insufficient Balance!you need more " +e.getAmount() + " to get money" );
57         }
58     }
59 }
```

```
Problems @ Javadoc Declaration Console Error Log
<terminated> Main (4) [Java Application] C:\Program Files\Java\jdk-13.0.2\bin\jav
Account id 123456789
Depositing Rs 2000...
Withdrawing Rs 2100...
Insufficient Balance!you need more 100.0 to get money
```

3b)IllegalBankTransactionException:

```
1 import java.util.Scanner;
2
3 public class IllegalBankTransactionException extends Exception {
4     static void amount() throws IllegalBankTransactionException
5     {
6         long id;
7         double balance = 0, deposit, withdraw;
8
9         Scanner dep=new Scanner(System.in);
10        System.out.println("Deposit an amount");
11        deposit=dep.nextInt();
12        balance += deposit;
13
14        Scanner wd=new Scanner(System.in);
15        System.out.println("Withdraw an amount");
16        withdraw=wd.nextInt();
17        balance -= withdraw;
18
19        if (withdraw<0)
20        {
21            throw new IllegalBankTransactionException();
22        }
23        else
24        System.out.println(balance);
25    }
26
27 }
```

