

KONGU ENGINEERING COLLEGE

PERUNDURAI ERODE - 638 052.

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14CSR107

14ITLH1 - JAVA

PROGRAMMING

LABORATORY

Aim & Algorithm	20	20
Program	40	40
Execution & output	30	30
Viva	10	8
Total	100	98

Aim :

To develop an application for library with methods issue() and return() and creating the "overDueException" if book is returned after the due date.

Algorithm :

Step 1: Include the headerfiles io and util packages.

Step 2: create a class class called library.

Step 3: Within the class, create a methods void get details, void book issue, return and the return with in the try block.

Step 4: check the date of return if it exceeds the date throw an exception.

Step 5: create a main class, call the methods using the library Objects.

Step 6: create a user defined exception class and extends the class Exception.

Step 7: within the class, override the string toString() method of exception class.

program :

```
import java.io.*;  
import java.util.*;  
class library // library class  
{
```

```
    int ac memberid
```

```
    void get details () {
```

```
        Scanner s1 = new Scanner (System.in);
```

```
        String name = new String();
```

```
        name = s1.next();
```

```
        System.out.println ("Enter your name and memberid");
```

```
        memberid = s1.nextInt();
```

```
    }
```

```
    void bookissue () // bookissue method
```

```
    { scanner s1 = new Scanner (System.in);
```

```
        System.out.println ("user get the book from the library");
```

```
        System.out.println ("user - you registered the following  
        details");
```

```
        name = s1.next();
```

```
        Memberid = s1.nextInt();
```

```
        Issuedate = s1.nextInt();
```

```
        System.out.println ("you must return the book within  
        10 days");
```

```
        Date = Issuedate + 10;
```

```
        System.out.println (Date);
```

```
    }
```


4. Develop an application for library book issue management with methods issue() and return(). Create and use the 'OverDueException' if book is returned after the due date.

```
try { // try block
    void bookreturn () // book return method
    {
        int return date ;
        System.out.println ("enter returndate"); returndate = get.nextInt ();
        if (returndate >= date)
        {
            System.out.println ("Book Accepted");
        }
        else
        {
            throw new OverDueException (e); // throw userdefined exception
        }
    }
}
catch ( OverDueException e) // catch block
{
    System.out.println (e);
}

class mclass // Mainclass
{
    public static void main (String args[])
    {
        library lib = new library ();
        lib.getdetails ();
        lib.bookissue ();
        lib.bookreturn ();
    }
}
```



```

class OverDueException extends Exception {
    OverDueException()
    {
        System.out.println("You return book exceeding the date (or)
        after the due date");
    }
    public String toString() // Method override of exception class
    {
        return (exception e);
    }
}

```

Output:

enter your name

nandhini

enter your memberid

12

LOGIN Successfully

1. bookissue

2. bookreturn

2

enter the date, return date

12.3.15

The actual returning date is 12.3.15

14.3.15

The returning date is 14.3.15. You returned the book on
 you have to pay the fine.
 exception caught.

Result:

Thus the userdefined exception handling has been
 Successfully.