## **Lab Examination**

CS261

Yuvraj Chauhan Set 4 19 December 2023

Academic Report 1

```
import java.util.Scanner;
   public class Prime {
       public static void main(String[] args) {
           generatePrime t1 = new generatePrime();
           checkPrime t2 = new checkPrime();
           t1.start();
           t2.start();
           try {
               t1.join();
           } catch (InterruptedException e) {
               e.printStackTrace();
           try {
               t2.join();
20
           } catch (InterruptedException e) {
               e.printStackTrace();
  class threadGetPrime1 extends Thread {
       @Override
29
       public void run() {
30
           for (int i = 2; i < 50; i++) {
               if (i == 2 || i == 3) {
32
                   System.out.println(i + " ");
34
                   continue;
35
36
               int flag = 1;
               for (int j = 2; j < 50; j++) {
38
39
                    if (i % j == 0) {
40
                        flag = 0;
                        break;
               if (flag == 1) {
                   System.out.println(i + " ");
49
           try {
               Thread.sleep(200);
           } catch (InterruptedException e) {
               e.printStackTrace();
  class threadGetPrime2 extends Thread {
       @Override
59
       public void run() {
60
           for (int i = 51; i < 100; i++) {
61
62
               int flag = 1;
               for (int j = 2; j < 50; j++) {
63
                    if (i % j == 0) {
64
65
                        flag = 0;
                        break;
66
67
68
69
               if (flag == 1) {
70
                   System.out.println(i + " ");
           try {
               Thread.sleep(200);
           } catch (InterruptedException e) {
               e.printStackTrace();
80
   class checkPrime extends Thread {
       @Override
       public void run() {
           Scanner sc = new Scanner(System.in);
           int a = sc.nextInt();
88
89
           for (int i = 2; i < a / 2; i++) {
90
               if (a % i == 0) {
91
92
                   System.out.println("Not a Prime");
93
                   break;
94
95
               if (i > a / 2)
96
                   System.out.println("Is Prime");
98
99
           sc.close();
100
101
           try {
               Thread.sleep(3000);
103
           } catch (InterruptedException e) {
104
               e.printStackTrace();
105
106
107
108}
109
110 class generatePrime extends Thread {
       @Override
       public void run() {
           threadGetPrime1 t1 = new threadGetPrime1();
           threadGetPrime2 t2 = new threadGetPrime2();
114
115
           t1.start();
116
           t2.start();
118
119
           try {
               t1.join();
120
           } catch (InterruptedException e) {
               e.printStackTrace();
124
125
           try {
               t2.join();
126
           } catch (InterruptedException e) {
               e.printStackTrace();
128
129
130
```

```
dcodr1303@Yuvrajs-MacBook-Air Question 1 % java Prime.java
2
3
53
59
61
67
71
73
79
83
89
97
78
Not a Prime
dcodr1303@Yuvrajs-MacBook-Air Question 1 %
```

dcodr1303@Yuvrajs-MacBook-Air Question 1 % javac Prime.java

```
import java.util.Scanner;
   final class User
       public User(String str)
           this name = str;
       public String name;
       public SocialMediaPlatform platform;
       public void createAccount()
14
           System.out.println("Which Platform do you want?");
16
           Scanner sc = new Scanner(System.in);
           String input = sc.nextLine();
18
19
           sc.close();
20
           SocialMediaPlatform platform = new SocialMediaPlatform(input);
           this.platform = platform;
24
25
       public void askInput(int menu)
26
           switch (menu) {
28
               case 1:
                   platform.post();
30
                   break;
32
               case 2:
                   platform.comment();
34
35
                   break;
36
               case 3:
                   System.out.println("Exiting...");
38
                   break;
40
       public static void main(String[] args) {
43
           User user = new User("Yuvraj");
45
           user.createAccount();
46
47
48
           user.askInput(1);
           user.askInput(1);
49
           user.askInput(2);
50
           user.askInput(1);
51
52
           user.askInput(1);
           user.askInput(2);
53
           user.askInput(2);
           user.askInput(2);
55
           user.askInput(2);
           user.askInput(1);
           user.askInput(2);
58
           user.askInput(2);
           user.askInput(3);
60
           System.out.println(user.platform.getComment());
62
66
   class SocialMediaPlatform
       public SocialMediaPlatform(String str)
           name = str;
           System.out.println("Your account has been created on platform : "
    + str);
       public static String name;
76
       static int countComment = 0;
78
       public void comment()
79
80
           System.out.println("comment added");
81
82
           countComment++;
83
       public int getComment()
           return countComment;
88
89
       public void post()
90
91
           FinalImagePost post_media = new FinalImagePost();
92
           post_media.post();
   abstract class ImagePost
      public abstract void post();
99
100}
102 final class FinalImagePost extends ImagePost
103 {
       public void post()
104
105
           System.out.println("Your Media has been Posted!");
106
107
108}
109
```

110

```
dcodr1303@Yuvrajs-MacBook-Air Desktop % mkdir oops_lab_exam
dcodr1303@Yuvrajs-MacBook-Air Desktop % cd oops_lab_exam
dcodr1303@Yuvrajs-MacBook-Air oops_lab_exam % code .
|dcodr1303@Yuvrajs-MacBook-Air oops_lab_exam % cd Question\ 2
dcodr1303@Yuvrajs-MacBook-Air Question 2 % javac User.java
dcodr1303@Yuvrajs-MacBook-Air Question 2 % java User.java
Which Platform do you want?
LinkedIN
Your account has been created on platform : LinkedIN
Your Media has been Posted!
Your Media has been Posted!
comment added
Your Media has been Posted!
Your Media has been Posted!
comment added
comment added
comment added
comment added
Your Media has been Posted!
comment added
comment added
Exiting...
dcodr1303@Yuvrajs-MacBook-Air Question 2 %
```