Lab Session -8

1)

```
package PreLab1;
import java.util.Scanner;
Public class Demo {
    Public static void main(String args[]) {
        Scanner sc=new Scanner(System.in);
        Solution s=new solution();
        System.out.println("Enter no-of test cases");
        int t=sc.nextInt();
        for(int i=1; i<=t; i++) {
            int n=sc.nextInt();
            int a[]=new int[n+1];
        System.out.println("enter elements");
        for(int j=1; j<n+1; j++) {
            a[j]=sc.nextInt();
        }
        s.thread(a,n);
    }
}
```

```
package prelab1;
public class solution{
    Public void thread(int a[], int n){
        int flag=0;
        for(int i=1; i<=n-1; i++){
            for(int j=i+1; j<=n; j++){
                int t1=a[i];
                int t2=a[j];
                if(t1!=t2 && t1<=n && t2<=n){
                    if(a[t1]==a[t2]){
                        flag=1;
                        break;
                    }
                }
            }
        }
        if(flag==1){
            System.out.println("RUN Thread");}
        else{
            System.out.println("STOP thread");}
    }
}
```

1) package inlab;

```
public class methods extends Thread {
    int a[];
    public methods(int a[]) {
        this.a=a;
    }
    public void run() {
        printtwo(a);
        Print three(a);
        Print four(a);
        Print five(a);
        Print other(a);
    }
    public void printtwo(int a[]) {
        for(int i=1; i<a.length ; i++) {
            if(a[i]%2==0)
                System.out.println(getName()+
                "divisible by 2 with "+a[i]);
        }
    }
public void PrintThree(int a[]) {
    for(int i=1; i<a.length;i++) {
        if(a[i]%3==0)
        System.out.println(getName() + "divisible
    }   }                by 3 with "+a[i]);
```

```
public void printFour(int a[]) {
    for(int i=1; i<a.length; i++) {
        if(a[i]%4==0)
        System.out.println(getName()+" divisible
        by 4 with "+ a[i]);
    }
}
public void printFive(int a[]) {
    for(int i=1; i<a.length; i++) {
        if(a[i]%2==0) {
        System.out.println(getName()+" divisible
        by 5 with "+a[i]);
    }
}
public void printOther(int a[]) {
    for(int i=1; i<a.length; i++) {
        if(a[i]%i==0)
        System.out.println(getName()+" divisible
        by "+a[i]);
    }
}
package inlab;
public class Demo {
    public static void main(String args[]) {
```

```
int a[] = {1,2,3,4,5,6,7,8,9,10,11,12,13,14,15};

Thread t = new Methods(a);
    t.start();
Thread t1 = new Methods(a);
    t1.start();
Thread t2 = new Methods(a);
    t2.start();
  }
}
```

3)
```
package inlab2;
import java.util.LinkedList;
public class PC {
    LinkedList<Integer> list = new LinkedList<>();
    int capacity = 2;
    public void produce() throws InterruptedException
    {
        int value = 0;
        while (true) {
            synchronized (this) {
                while (list.size() == capacity)
                    wait();
                System.out.println("Producer
                    Produced - " + value);
```

```
            list.add(value++);
            notify();
            Thread.sleep(1000);
        }
    }

    public void consume() throws InterruptedException {
        while(true) {
            synchronized(this) {
                while(list.size()==0)
                    wait();
                int val = list.removeFirst();
                System.out.println("Consumer
                    Consumed - "+val);
                notify();
                Thread.sleep(1000);
            }
        }
    }
}
```

rmi lab 1

1) package RMIlab1;

public class demo {

public static void main(String args[]) {

Fib f = new Fib();

f.start();

try {

f.join();

}

catch (InterruptedException e) {

e.printStackTrace();

}

Reverse r = new Reverse();

r.start();

}

}

package RMIlab1;

import java.io.*;

Public class Fib extends Thread {

public void run() {

int n1=0, n2=1, n3;

BufferedReader b2 new BufferedReader

(new InputStreamReader

(System.in));

```
System.out.println("Enter the limit of for fibonacci
    try {
        int x = Integer.parseInt(br.readLine());
    }
    catch (NumberFormatException | IOException e) {
        e.printStackTrace();
    }
System.out.println("Fibonacci series: ");
System.out.print(n1 + " ");
System.out.print(n2 + " ");
for (int i=2; i<=10; i++)
    {
        n3 = n1 + n2;
        System.out.println(n3 + " ");
        n1 = n2;
        n2 = n3;
    }
    System.out.println();
    System.out.println("==========");
}
}
```

```
package postlab1;

public class Reverse extends Thread {

    public void run()
    {
        int n=10;
        System.out.println("Reverse is:");
        for(int i=10;i>=1;i--) {

            System.out.print(i+" ");
        }
        System.out.println();
        System.out.println("==========");
    }
}
```

OUTPUT:

Enter the limit for fibonacci:

10

==========

Fibonacci series:

0 1 1 2 3 5 8 13 21 34.

==========

Reverse is:

==========

10 9 8 7 6 5 4 3 2 1

==========