

```
/*-----  
problem statement: Write a Java Program to do the following.
```

- a) Creates three threads.
- b) The first thread should print the prime numbers between 1 and 100;
- c) Second thread should print prime numbers between 101 and 200; and
- d) Third thread should print prime numbers between 201 and 300.
- e) It is mandatory that first thread must print first, followed by second and third threads.
- f) Output should be:  
Thread-SMJ: Primes between 1 and 100  
Thread-JVV: Primes between 101 and 200  
Thread-Myself: Primes between 201 and 300
- g) All threads must call the same method generatePrime () to print prime numbers.

Termwork-5

Date: 18-5-2022

Author: Meeth Sakaria

Theory:

```
-----*/
```

```
class NewThread implements Runnable {  
    String name;  
    Thread t;  
    int num1,num2;  
  
    public synchronized void generatePrime(String name,int num1,int  
num2){  
        int flag=1;  
        System.out.println(name);  
        System.out.println("The prime numbers between " + num1 + " and "  
+ num2 + " are: ");  
        for(int i = num1; i<=num2; i++) {  
            flag=1;  
            for(int j = 2; j<=i/2; j++)  
            {  
                if(i%j==0)  
                {  
                    flag=0;  
                    break;  
                }  
            }  
            if(flag==1){  
                System.out.println(i);  
            }  
        }  
    }  
  
    NewThread(String threadname, int num1,int num2) {  
        name = threadname;  
        t = new Thread(this, name);  
        System.out.println("New thread: " + t);  
        this.num1=num1;
```

```

        this.num2=num2;
        t.start();

        try{
            t.join();
        }catch(InterruptedException e){
            e.printStackTrace();
        }

    }

    public void run() {
        generatePrime(name, num1, num2);
    }
}

class termwork_5 {
    public static void main(String args[]) {

        new NewThread("SMJ",1,100);
        new NewThread("JVV",101,200);
        new NewThread("Myself",201,300);

    }
}

```