BCSE308P COMPUTER NETWORKS

ASSIGNMENT

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MULTI-THREAD PROGRAM

```
class MultithreadingDemo implements Runnable
{
        int a, b, c, thread;
        public MultithreadingDemo(int t, int i, int j)
        {
                a = i;
                b = j;
                thread = t;
        }
        public void run()
        {
                try
                {
                        int chk, j, i = a;
                        if (thread == 1)
                        {
                                while(i < b)
                                {
                                        chk = 1;
                                        System.out.println("Th
read " + Thread.currentThread().getId() + " is running");
                                        for (j = 2; j < i;
j++)
                                                if (i % j ==
0)
                                                {
                                                        chk =
0;
                                                        break;
                                                }
                                        if (chk == 1)
                                                System.out.pri
ntln("Thread " + Thread.currentThread().getId() + " says prime
= " + i);
                                        Thread.sleep(10);
                                        i++;
                                }
                        }
                        else if (thread == 2)
                        {
                                while(i < b)
```

```java
					{
						System.out.println("Th
read " + Thread.currentThread().getId() + " is running");
						if (i % 2 != 0)
							System.out.pri
ntln("Thread " + Thread.currentThread().getId() + " says odd =
" + i);
						Thread.sleep(10);
						i++;
					}
				}

			}
			catch (Exception e)
			{
				System.out.println("Exception is
caught");
			}
		}
}
public class Multithread
{
	public static void main(String[] args)
	{
		try
		{
			MultithreadingDemo md1=new
MultithreadingDemo(1, 10, 20);
			MultithreadingDemo md2=new
MultithreadingDemo(2, 100, 200);
			Thread t1 = new Thread(md1);
			Thread t2 = new Thread(md2);
			t1.start();
			t2.start();
		}
		catch(Exception e)
		{
			System.out.println("Exception is
caught");
		}
	}
}
```

Output

```
student@hostserver42:~/21BPS1394$ javac Multithread.java
student@hostserver42:~/21BPS1394$ java Multithread
Thread 12 is running
Thread 13 is running
Thread 12 is running
Thread 13 is running
Thread 12 says prime = 11
Thread 13 says odd = 101
Thread 12 is running
Thread 13 is running
Thread 12 is running
Thread 13 is running
Thread 12 says prime = 13
Thread 13 says odd = 103
Thread 12 is running
Thread 13 is running
Thread 12 is running
Thread 13 is running
Thread 13 says odd = 105
Thread 12 is running
Thread 13 is running
Thread 12 is running
Thread 13 is running
Thread 12 says prime = 17
Thread 13 says odd = 107
Thread 12 is running
Thread 13 is running
Thread 12 is running
Thread 13 is running
Thread 12 says prime = 19
Thread 13 says odd = 109
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 111
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 113
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 115
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 117
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 119
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 121
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 123
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 125
Thread 13 is running
Thread 13 is running
```

```
Thread 13 says odd = 127
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 129
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 131
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 133
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 135
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 137
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 139
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 141
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 143
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 145
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 147
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 149
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 151
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 153
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 155
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 157
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 159
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 161
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 163
Thread 13 is running
Thread 13 is running
```

```
Thread 13 says odd = 165
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 167
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 169
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 171
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 173
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 175
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 177
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 179
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 181
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 183
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 185
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 187
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 189
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 191
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 193
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 195
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 197
Thread 13 is running
Thread 13 is running
Thread 13 says odd = 199
student@hostserver42:~/21BPS1394$
```