

## LAB SHEET (MULTITHREADING)

Name-G.O Wickramaratne

ID-28039

### TRAFFIC LIGHT QUESTION

Question 01	<pre>package com.mycompany.threadexample1;  public class RedLightThread extends Thread{      public void run()     {          try{             while(true){                 System.out.println("Red");                 Thread.sleep(5000);             }         }         catch(InterruptedException e){             e.printStackTrace();         }     } }  package com.mycompany.threadexample1;  public class GreenLightThread extends Thread{      public void run()     {         System.out.println("Green");          try{             while(true){                 Thread.sleep(10000);             }         }         catch(InterruptedException e){             e.printStackTrace();         }     } }</pre>
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```
package com.mycompany.threadexample1;
```

```
public class YellowLightThread extends Thread {  
    public void run()  
  
        {  
            System.out.println("Yellow");  
  
            try{  
                while(true){  
                    Thread.sleep(2000);  
                }  
            }  
            catch(InterruptedException e){  
                e.printStackTrace();  
            }  
        }  
    }  
}
```

```
package com.mycompany.threadexample1;
```

```
public class ThreadExample1 {  
  
    public static void main(String[] args) {  
        RedLightThread r=new RedLightThread();  
        r.start();  
        GreenLightThread g=new GreenLightThread();  
        g.start();  
        YellowLightThread y=new YellowLightThread();  
        y.start();  
  
    }  
}
```



```

Thread.sleep(2000);

        break;
    case RED:
        System.out.println("Red Light");
        Thread.sleep(5000);
        break;
    }catch(InterruptedException exc){
        System.out.println(exc);
    }
}
changeColor();
}
}

} synchronized void changeColor(){
    switch(tlc){
        case RED:
            tlc=TrafficLightColor.GREEN;
            break;
        case YELLOW:
            tlc=TrafficLightColor.RED;
            break;
        case GREEN:
            tlc=TrafficLightColor.YELLOW;
    }
}

notify();

    synchronized void waitForChange(){
        try{
            wait();
        }catch(InterruptedException exc){
            System.Out.println(exc);

```

```
package com.mycompany.trafficlightstimulator;

public class TrafficLightDemo {

    public static void main(String[] args) {
        TrafficLightsStimulator t1=new TrafficLightsStimulator (TrafficLightColor.YELLOW);
        for(int i=0;i<9;i++){
            System.out.println(t1.getColor());
            t1.waitForChange();
        }
        t1.cancel();

    }
}
```





