**PROCESS SYNCHRONIZATION AND SCHEDULING**

**LAB # 08**

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**Spring 2021**

**CSE204L Operating System**

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Registration No: **19PWCSE1795**

Class Section: **B**

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Submitted to:

**Engr. Mian Ibad Ali Shah**

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**Department of Computer Systems Engineering**

**University of Engineering and Technology, Peshawar**

**Lab Objective(s):**

* Solve the Critical Section Problem
* Implement different Process Scheduling Algorithms.

**Task # 01:**

Solve the critical section problem using:

1. Peterson solution
2. Test and set instruction
3. producer/consumer problem

**Peterson Solution:**

**Code:**

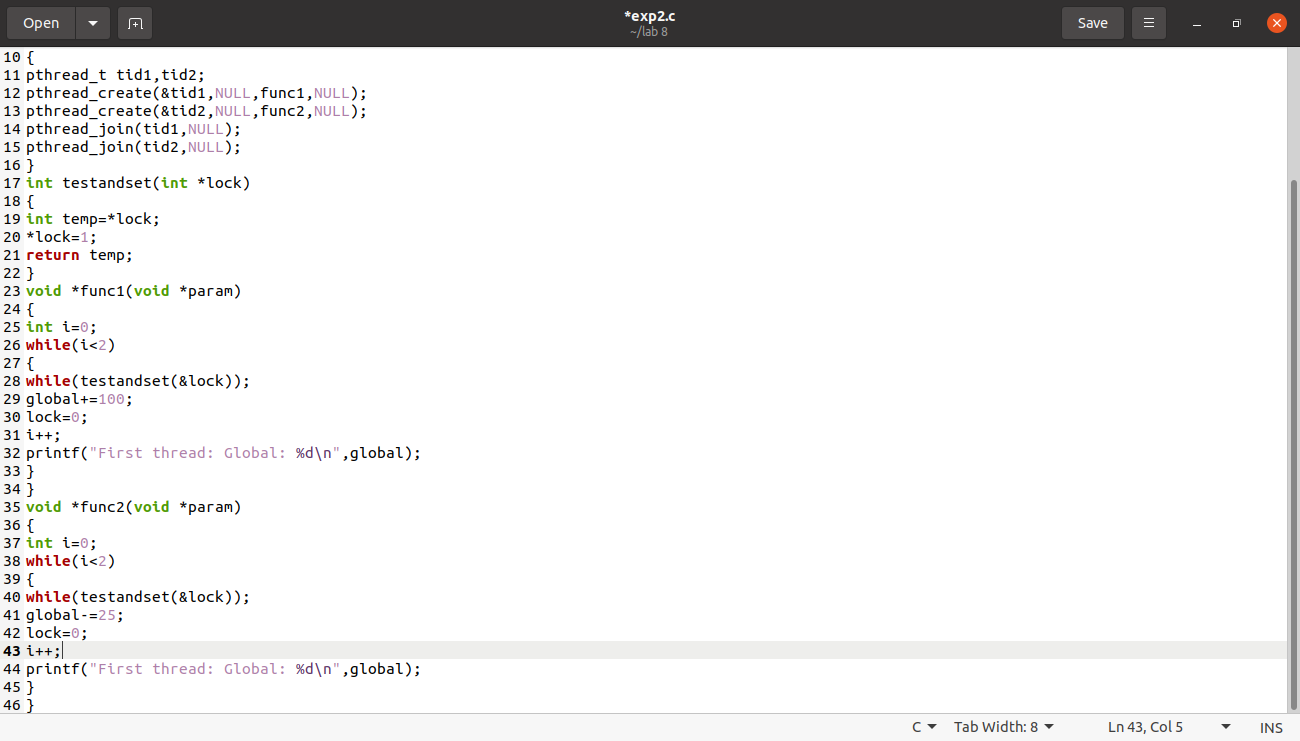


**Output:**

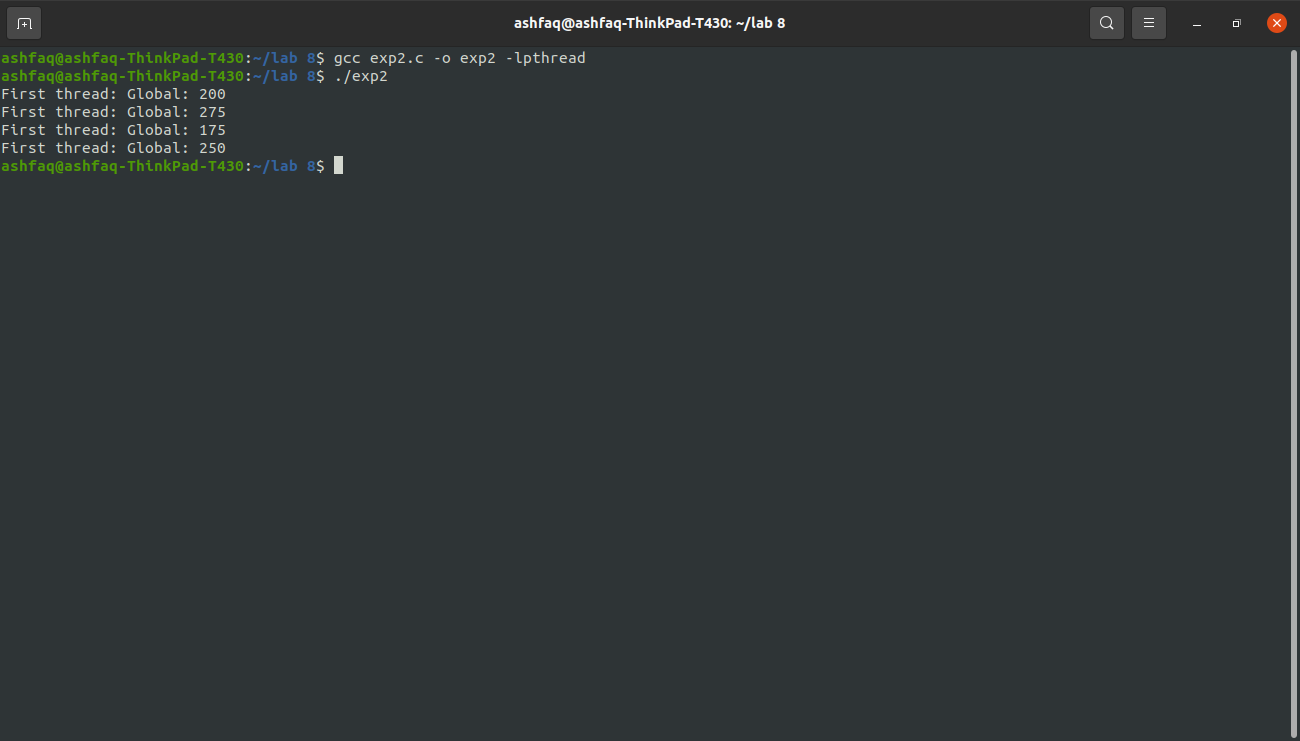


**Test and Set Instruction:**

**Code:**

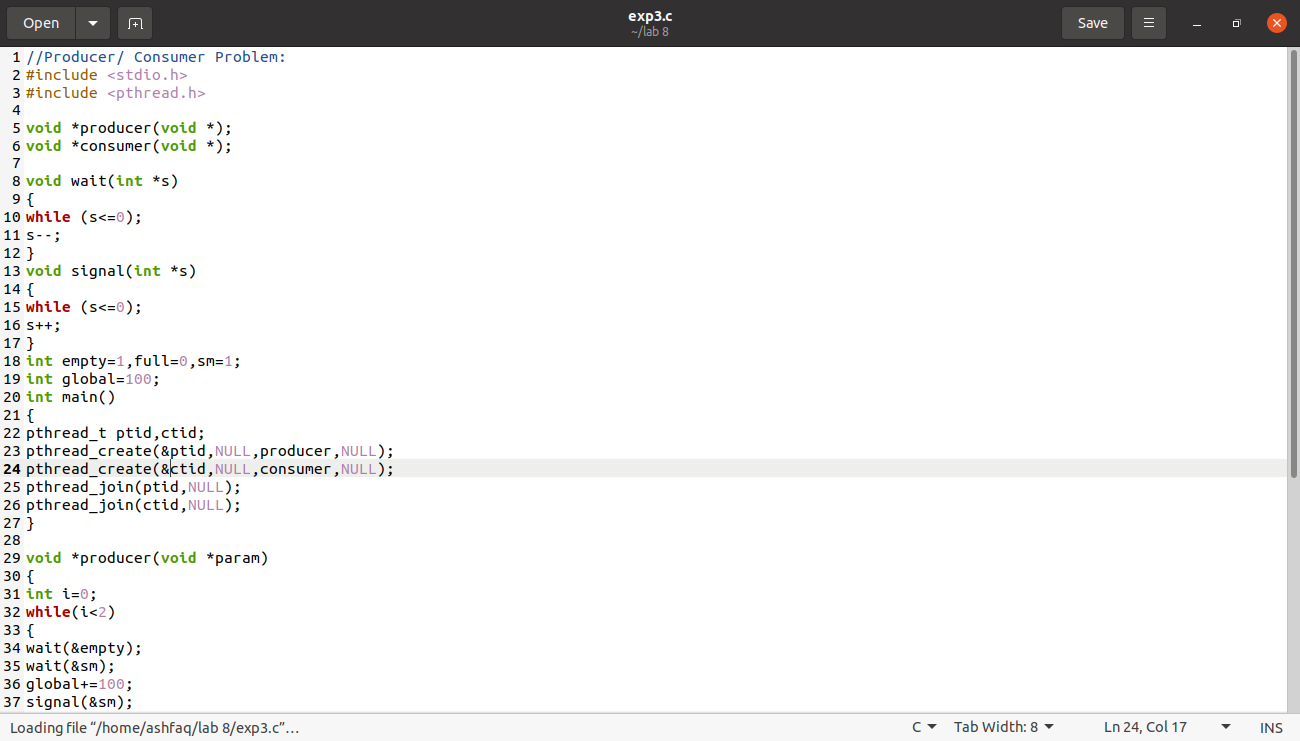


**Output :**

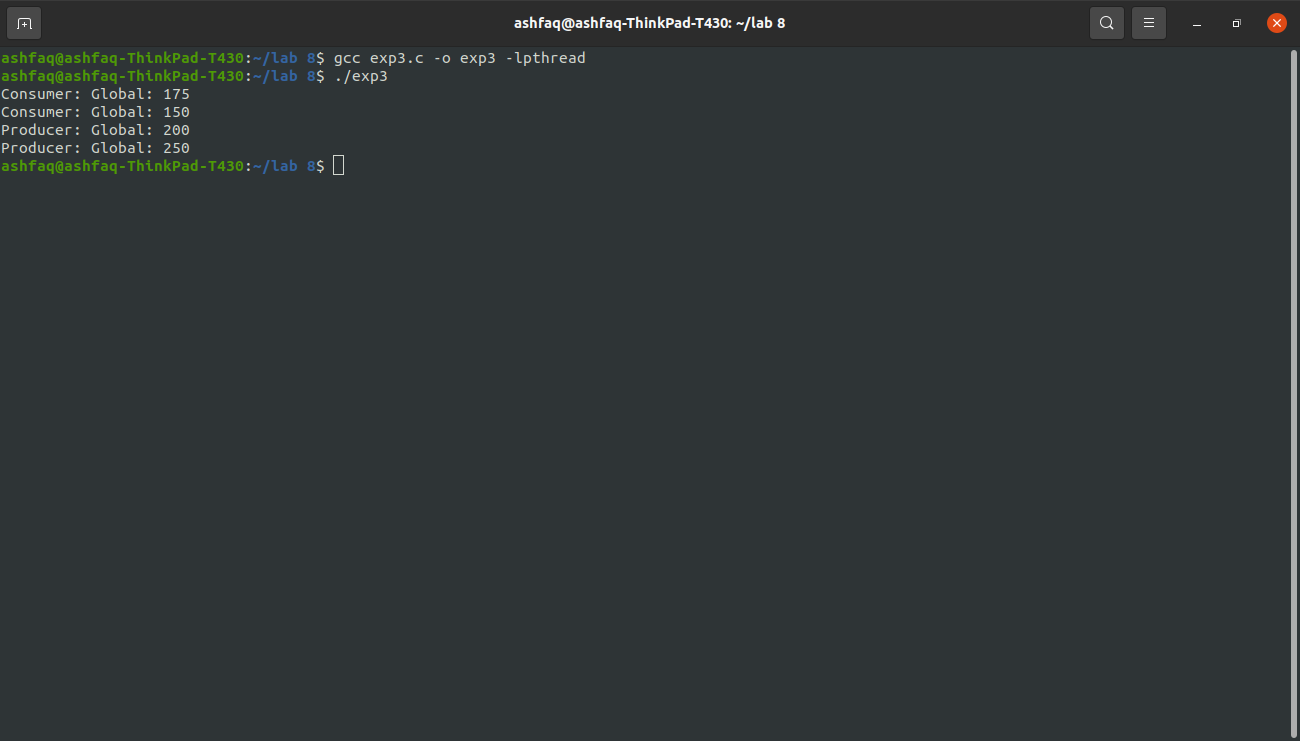
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**Producer/Consumer Problem:**

**Code:**



**Output:**

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**Task # 02:**

Simulate the following Process Scheduling Algorithms:

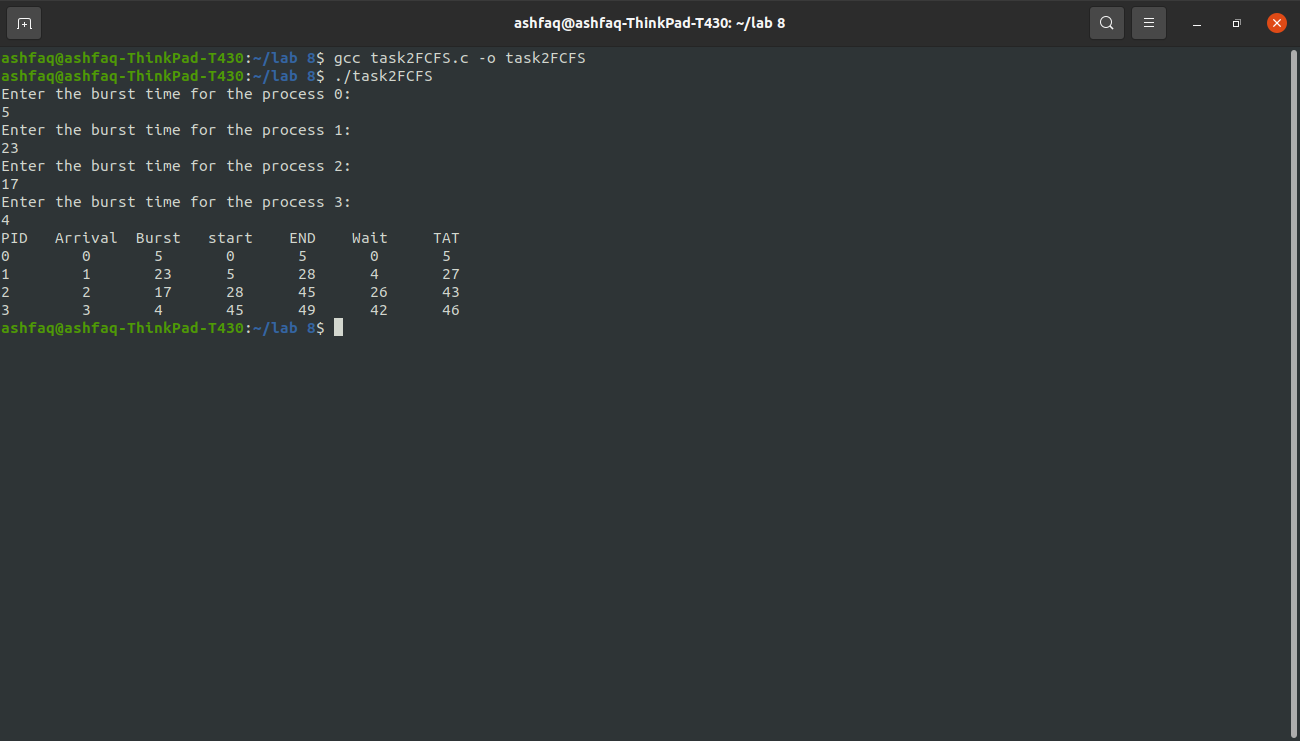
1. First Come First Serve
2. Shortest Job First
3. Priority Scheduling
4. Shortest Time Remaining First

**First Come First Serve:**

**Code:**

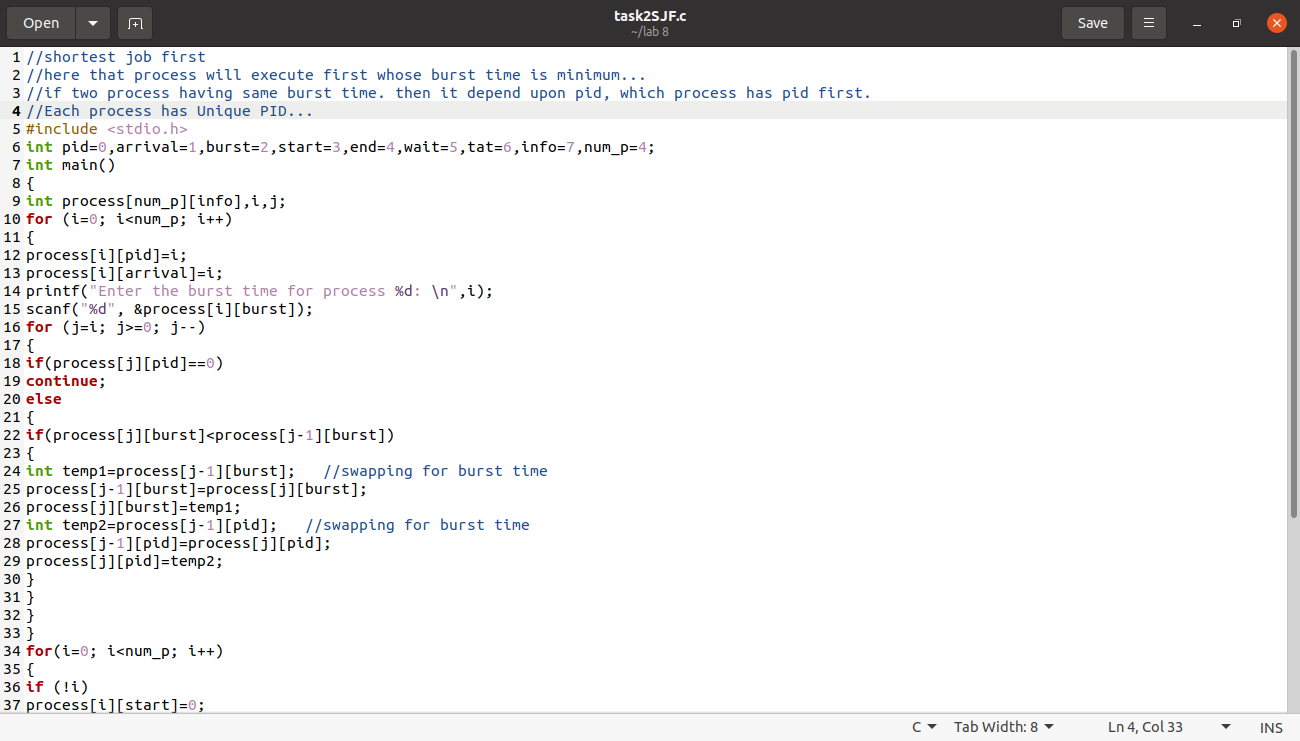


**Output:**

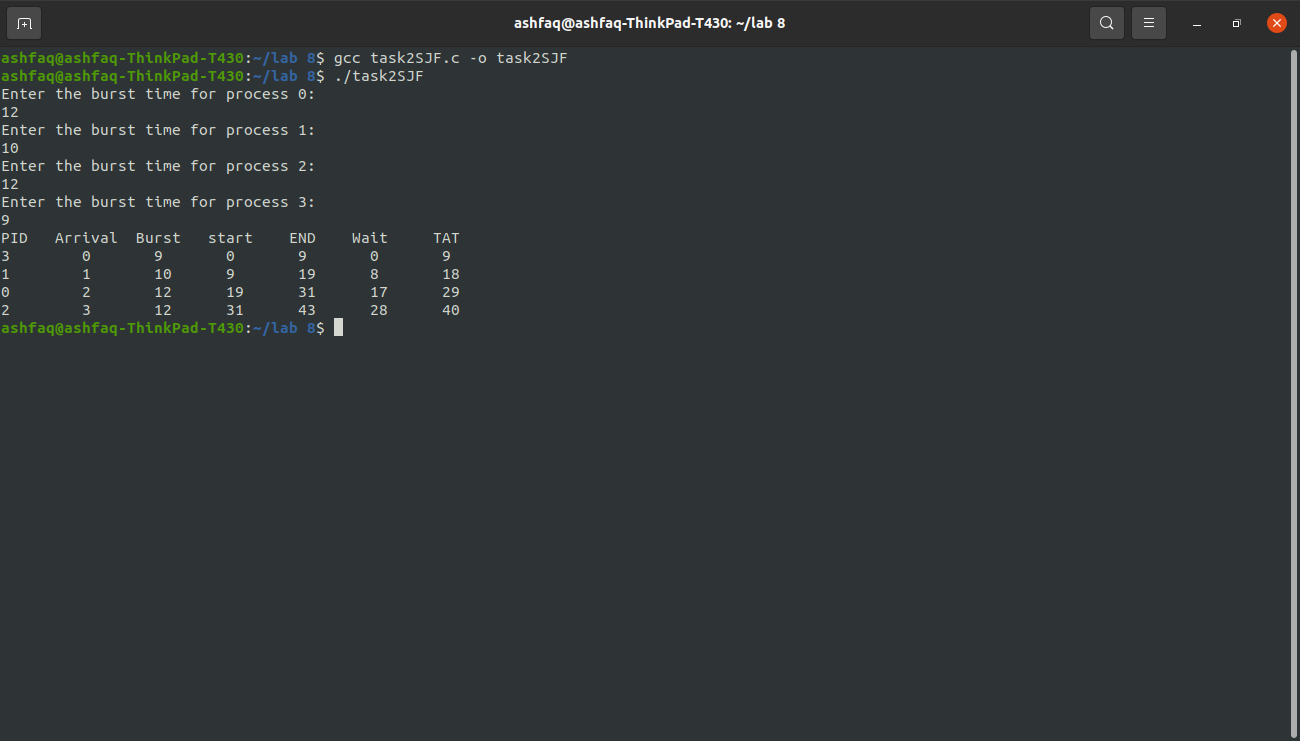


**Shortest Job First:**

**Code:**

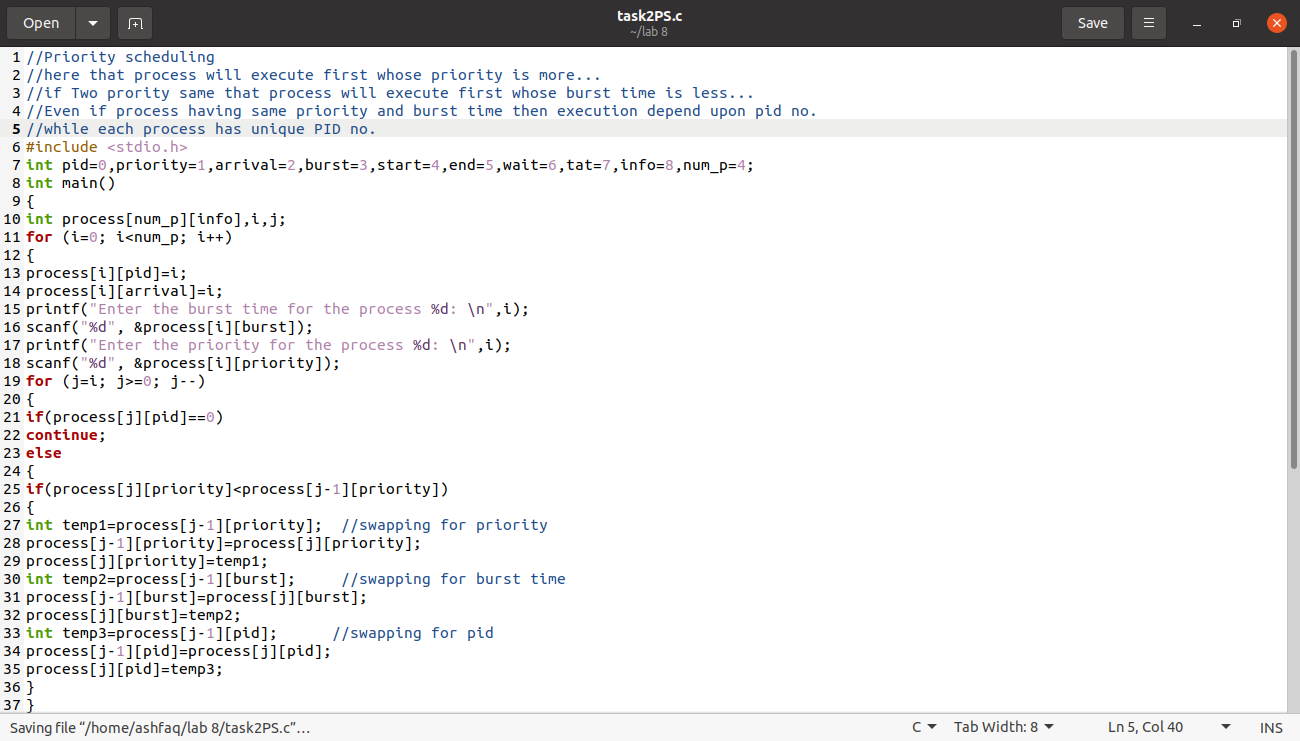


**Output:**

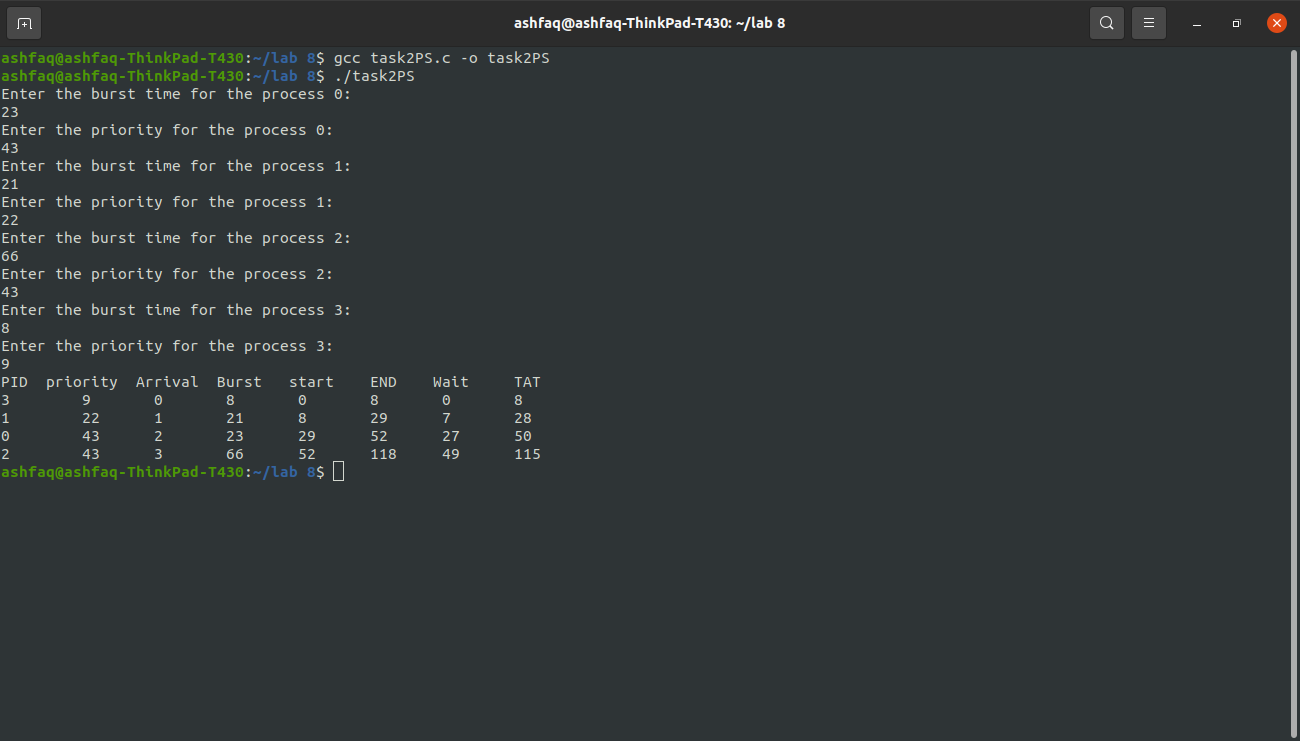


**Priority Scheduling:**

**Code:**

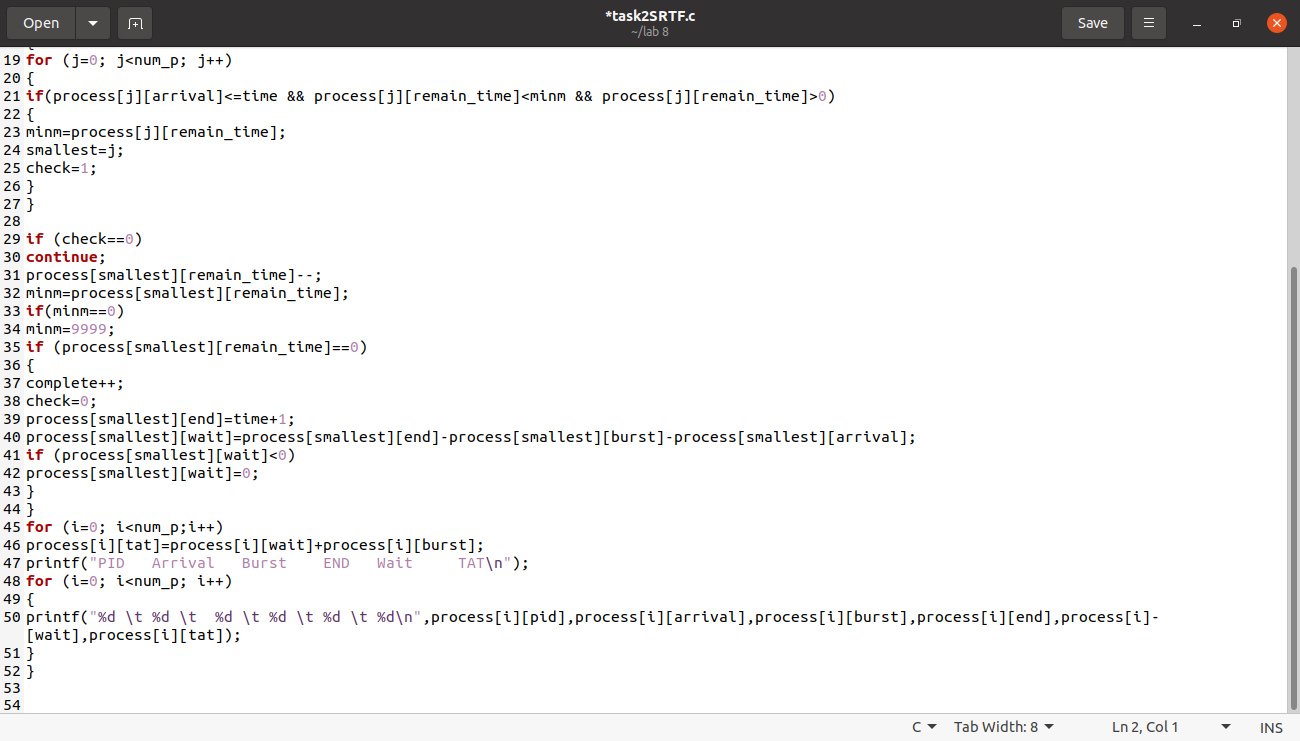
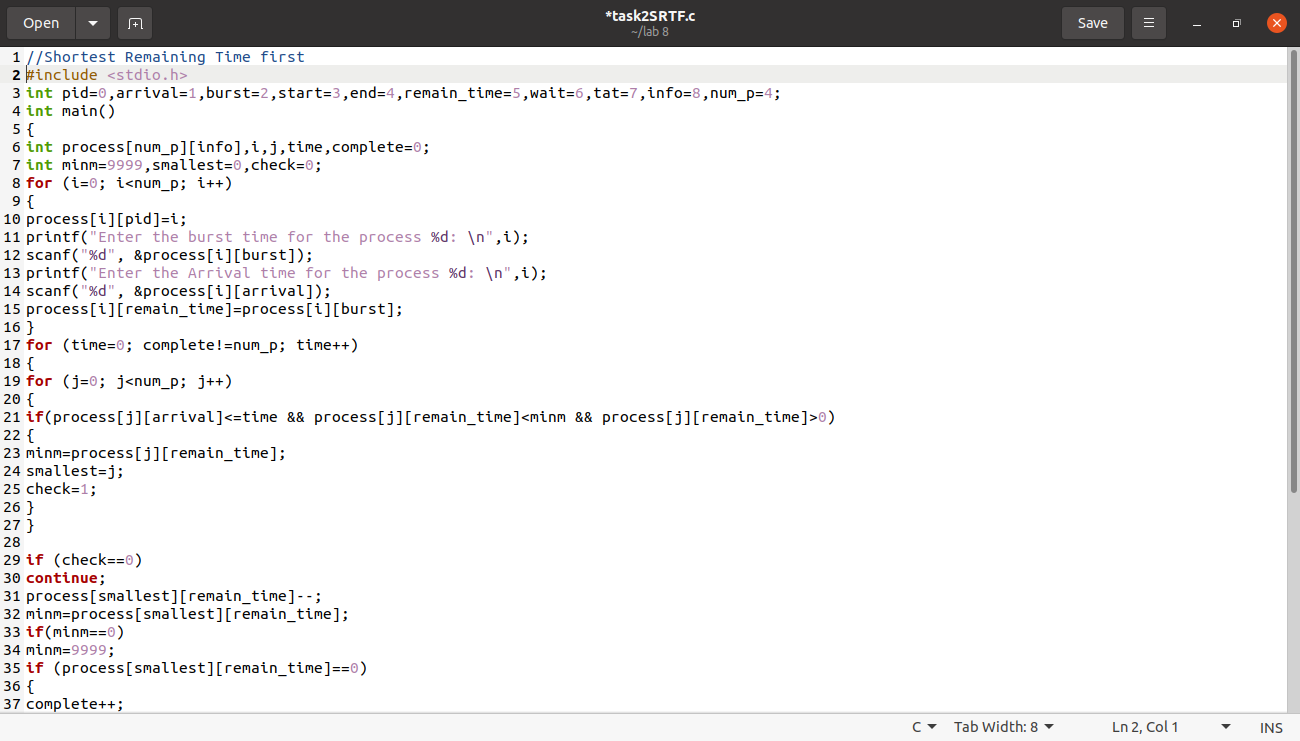


**Output:**



**Shortest Remaining Time First:**

**Code:**



**Output:**



**THE END**