

1. Preemptive Priority – without processes of equal priority – no Round Robin

```
Problems Javadoc Declaration Search Console X
<terminated> SchedulingSimulator [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Feb 28, 2023, 7:35:24 PM – 7:35:24 PM) [pid: 9680]
Input file
-----
A 0 5 8
B 2 8 7
C 4 2 7

Time: 0 <<< Arriving Process A with priority=5
    ---Dispatching Process A---
A Running...
Time: 1
A Running...
Time: 2 <<< Arriving Process B with priority=8
A Running...
Time: 3
A Running...
Time: 4 <<< Arriving Process C with priority=2
    ---Preempting Process A---
    ---Dispatching Process C---
C Running...
Time: 5
C Running...
Time: 6
C Running...
Time: 7
C Running...
Time: 8
C Running...
Time: 9
C Running...
Time: 10
C Running...

Time: 11 >>> Process C completed!
    ---Dispatching Process A---
A Running...
Time: 12
A Running...
Time: 13
A Running...
Time: 14
A Running...
Time: 15 >>> Process A completed!
    ---Dispatching Process B---
B Running...
Time: 16
B Running...
Time: 17
B Running...
Time: 18
B Running...
Time: 19
B Running...
Time: 20
B Running...
Time: 21
B Running...
Time: 22 >>> Process B completed!

Gantt Chart: |A|A|A|A|C|C|C|C|C|C|A|A|A|A|B|B|B|B|B|B|

Turn Around Time Statistics
-----
Turn Around Time of Process A: 15
Turn Around Time of Process B: 20
Turn Around Time of Process C: 7
Average Turn Around Time: 14.00
```

2. Preemptive priority with processes of equal priority – using Round Robin, Q= 2(user can change this)

```
Problems Javadoc Declaration Search Console X
<terminated> SchedulingSimulator [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Feb 28, 2023, 7:47:15 PM – 7:47:15 PM) [pid: 2252]
Input file
-----
A 0 2 8
B 2 8 7
C 4 2 7

Time: 0 <<< Arriving Process A with priority=2
---Dispatching Process A---
A Running...
Time: 1
A Running...
Time: 2 <<< Arriving Process B with priority=8
A Running...
Time: 3
A Running...
Time: 4 <<< Arriving Process C with priority=2
---Switching to Secondary[Round Robin with Q=2]---
---Preempting Process A---
---Dispatching Process C---
C Running...
Time: 5
C Running...
Time: 6
---Preempting Process C---
---Dispatching Process A---
A Running...
Time: 7
A Running...
Time: 8
---Preempting Process A---
---Dispatching Process C---
C Running...

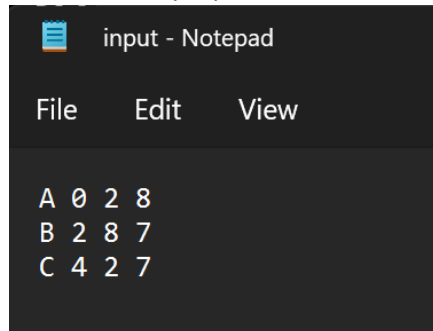
Time: 9
C Running...
Time: 10
---Preempting Process C---
---Dispatching Process A---
A Running...
Time: 11
A Running...
---Ending Secondary[Round Robin with Q=2]---
Time: 12 >>> Process A completed!
---Dispatching Process C---
---Preempting Process C---
---Dispatching Process C---
C Running...
Time: 13
C Running...
Time: 14
C Running...
Time: 15 >>> Process C completed!
---Dispatching Process B---
B Running...
Time: 16
B Running...
Time: 17
B Running...
Time: 18
B Running...
Time: 19
B Running...
Time: 20
B Running...
```

```
Time: 21
B Running...
Time: 22 >>> Process B completed!

Gantt Chart: |A|A|A|A|C|C|A|A|C|C|A|A|C|C|C|B|B|B|B|B|B|

Turn Around Time Statistics
-----
Turn Around Time of Process A: 12
Turn Around Time of Process B: 20
Turn Around Time of Process C: 11
Average Turn Around Time: 14.33
```

This is how my input file looks like.



```
input - Notepad

File Edit View

A 0 2 8
B 2 8 7
C 4 2 7
```