Write a program to implement CPU Scheduling using Shortest Remaining Time First (SRTF) (preemptive) algorithm. Consider the following data set:

No. of Processes – 6

|  |  |  |
| --- | --- | --- |
| Process Id | Arrival Time | Burst Time |
| 1 | 0 | 8 |
| 2 | 1 | 4 |
| 3 | 2 | 2 |
| 4 | 3 | 1 |
| 5 | 4 | 3 |
| 6 | 5 | 2 |

Data set can be taken as user input or as file input.

Print the Gantt chart to show the scheduling of the processes.

Calculate and print the average waiting time.