CSL 333 LAB 3 – CPU Scheduling

In this lab, you are required to implement the following CPU scheduling algorithms:

1. FCFS (First come First Serve)
2. SRTF (Shortest Remaining Time first)
3. RR (Round Robin) with quantum values of: 50, 100, and 500 milliseconds

INPUT:

The input will be an *input.txt* file. Each line will represent a process. In each line, the first number will be the arrival time and second number will be the total CPU time that the process requires to complete. The two numbers in a line will be separated by two space characters. Assume milliseconds as the unit of time. Also assume a context switch time of 0.5 milliseconds.

For example, consider the following 5 processes:

Arrival Time	CPU Execution Time
0	239
300	30
210	223
213	12
400	500

The corresponding input file will look like this:

```
0  239
300  30
210  223
213  12
400 500
```

OUTPUT:

The output will be an *output.txt* file containing the following data for each of the above three CPU scheduling algorithms.

1. Average waiting time.
2. Average turnaround time.

You need to submit a *C* program which takes *input.txt* as input and generates *output.txt*. Please note that your program needs to work for **any** valid input file containing data for *n* number of processes.