LAB ASSIGNMENT # 4 (Algorithms & Operating Systems)

Hard deadline: November 17, 2013 (23:59 PM)

[Implementation of CPU scheduling algorithms and their performance comparison]

Write a menu-driven C program for doing the following task:

MENU

Choice	CPU Scheduling Algorithm
1	FCFS
2	Non-preemptive SJF
3	Preemptive SJF
4	Non-preemptive priority
5	Preemptive priority
6	Round Robin (RR)
7	All above algorithms (1-6)
0	Exit

In the menu, if the choice is given, for example, 2, then your program should provide the Gantt chart for the processes based on the initial input supplied by you and print the waiting time for each process Pi and the average waiting time.

The input to the program will be as follows:

Process	Arrival Time	Brust Time	Priority
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If the choice is given 7, then your program will show the performance comparison in terms of the average waiting time for each process in a table among all the above six algorithms.

Finally, if the choice is 0, then your program will quit.

Name your file as CPUSched_rollno.c. Clearly mention the types of data structures that you have used in your implementation. Your code must be well-commented and easy-to-understand by other readers.

Submit your C file only.