

HW #4

=====start of the write-up=====

Part1:

1. First-Come First Served (FCFS)
 - Could result in starvation
 - All long jobs comes before short jobs; all jobs behind large one could potentially starve
 - High turnaround time ($T_{finish} - T_{start}$)
2. Shortest Job First (SJF)(Non-Preemptive)
 - Starving can occur to long jobs
 - When there are a lot of short jobs that keep coming in, then the long jobs will just starve while short jobs are being run.
3. Shortest Remaining Time First (SRTF) (Preemptive)
 - Like shortest job first, starvation can occur to long jobs
 - If jobs with small run times are continuatllly add, the larger job will be starved
4. Round Robin(RR)
 - Starvation does not occur in round robin because all jobs have equal quantum time to run
5. Priority
 - Starvation occures on low-priority jobs
 - Solution is "Age" process
 - > Age jobs on low priorities so they have high prescedence as they wait longer

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Part2: pthread_compute.c

```
dereky1@odin:~/143a/hw/hw5
Script started on Thu 03 Nov 2016 01:57:29 AM PDT
^[]0;dereky1@odin:~/143a/hw/hw5^G^[]1034hdereky1@odin 01:57:29 ~/143a/hw/hw5 ^M^M
$ make^M
make: `search' is up to date.^M
^[]0;dereky1@odin:~/143a/hw/hw5^Gdereky1@odin 01:57:35 ~/143a/hw/hw5 ^M^M
$ make clean^M
/bin/rm -rf search.o que.o search^M
^[]0;dereky1@odin:~/143a/hw/hw5^Gdereky1@odin 01:57:40 ~/143a/hw/hw5 ^M^M
$ make^M
gcc -c -std=c99 -ggdb search.c^M
gcc -c -std=c99 -ggdb que.c^M
gcc -std=c99 -ggdb search.o que.o -lpthread -o search^M
^[]0;dereky1@odin:~/143a/hw/hw5^Gdereky1@odin 01:57:43 ~/143a/hw/hw5 ^M^M
$ search hello text.tex^H^[]K^H^[]Kxt^M
Found 1 total matches of 'hello'^M
^[]0;dereky1@odin:~/143a/hw/hw5^Gdereky1@odin 01:57:55 ~/143a/hw/hw5 ^M^M
$ make test^H^[]K^H^[]K^H^[]K^H^[]K^H^[]K^H^[]K^H^[]K^H^[]K^H^[]K^H^[]K^G^G^Gmake test^M
search the /usr/share/dict/linux.words^M
Found 7485 total matches of 'the'^M
grep -c the /usr/share/dict/linux.words^M
5931^M
^[]0;dereky1@odin:~/143a/hw/hw5^Gdereky1@odin 01:58:13 ~/143a/hw/hw5 ^M^M
$ exit^M
exit^M

Script done on Thu 03 Nov 2016 01:58:19 AM PDT
~
~
~
~
1,1 All
```

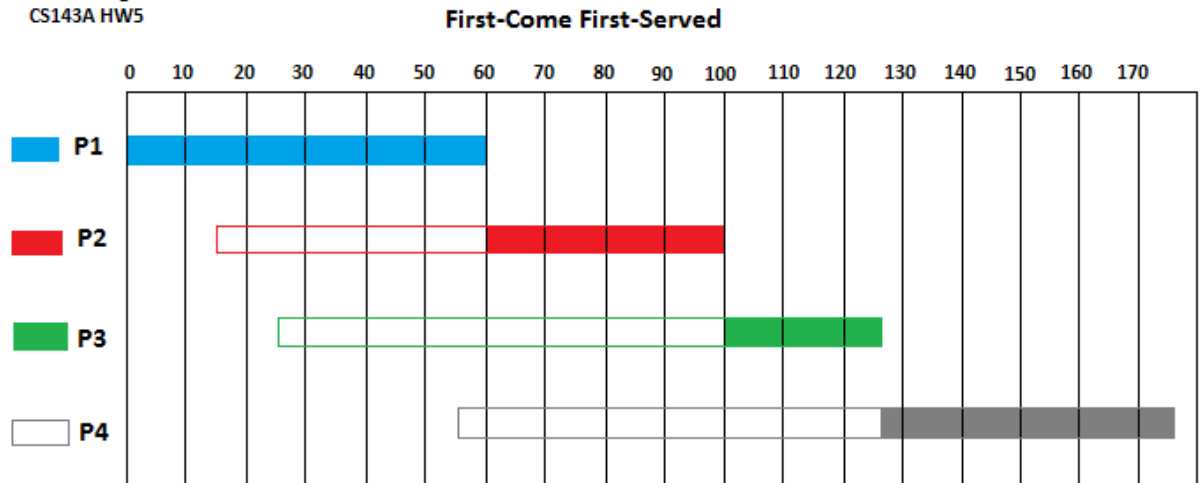
Part3:

91.25, 47.5
87.5, 43.75
83.75, 40
116.25, 72.5
87.5, 43.75

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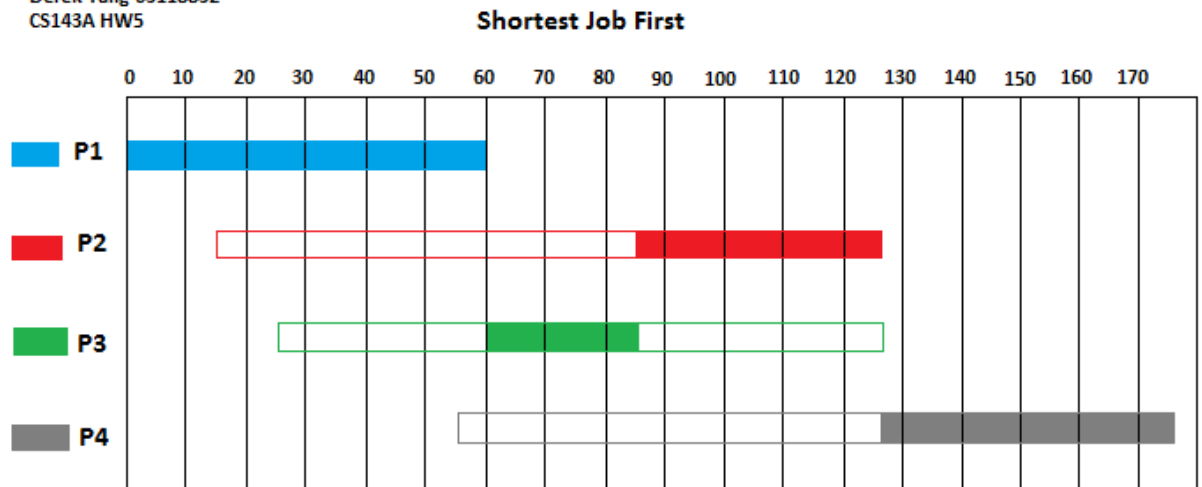
1. First-Come First-Served (FCFS)

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2. Shortest Job First (SJF) (Non-preemptive)

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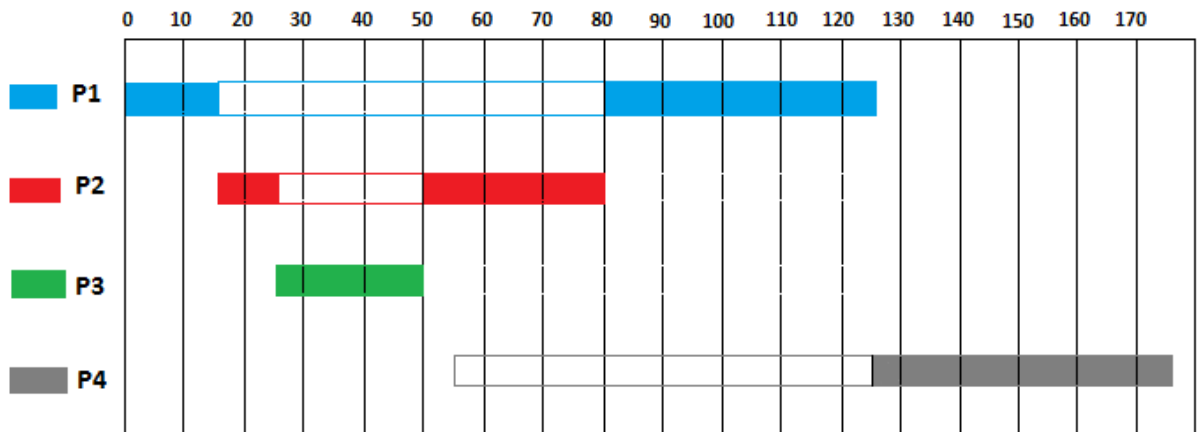


3. Shortest Remaining Time First (SRTF) (Preemptive)

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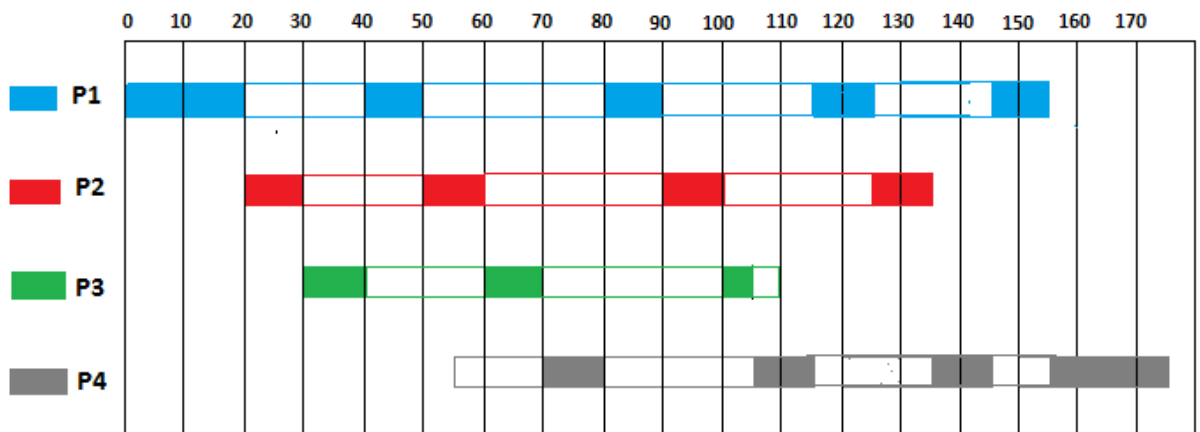
Shortest Remaining Time First



4. Round Robin (RR) (Time Quantum = 10)

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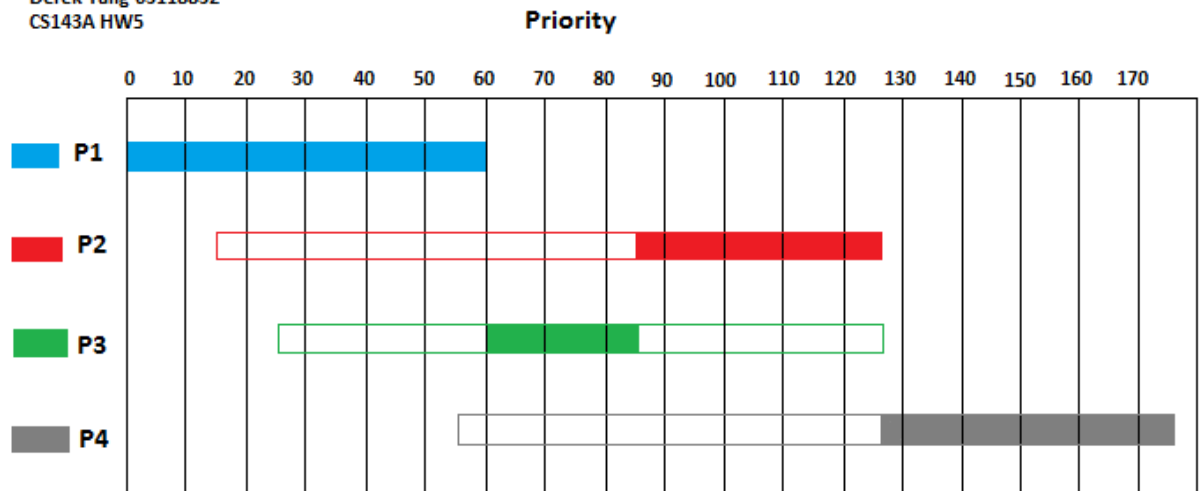
Round Robin



5. Priority

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=====end of the write-up=====