Faculty of Engineering & Technology
Department of Electrical & Computer Engineering
ENCS3390: Operating System Concepts
Project#2
output

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Section:

2

Date:

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Non-Preemptive scheduling:

```
> python -u "c:\Users\DELL\Desktop\OS\project2\nonPremmptive.py"
Gantt Chart For Non_preemptive:
|P1(0-15)|P5(15-25)|P4(25-27)|P6(27-29)|P4(29-31)|P6(31-33)|P4(33-35)|P6(35-37)|P4(37-39)|P5(39-49)|P6(49-51)|P4(51-53)|P
6(53-55)|P4(55-57)|P6(57-59)|P4(59-61)|P6(61-63)|P5(63-73)|P4(73-75)|P6(75-83)|P2(83-85)|P7(85-87)|P5(87-97)|P6(97-99)|P4
(99-101)|P6(101-103)|P4(103-105)|P6(105-107)|P4(107-109)|P6(109-111)|P5(111-121)|P4(121-123)|P6(123-125)|P4(125-127)|P6(1
27-129)|P4(129-131)|P6(131-133)|P4(133-135)|P5(135-145)|P6(145-147)|P4(147-149)|P6(149-155)|P2(155-157)|P7(157-159)|P5(15
9-169)|P6(169-171)|P4(171-173)|P6(173-175)|P4(175-177)|P6(177-179)|P4(179-181)|P6(181-183)|P5(183-193)|P4(193-195)|P6(195
-197)|P4(197-199)|P6(199-201)|P4(201-203)|P6(203-205)|P4(205-207)|P5(207-217)|P6(217-219)|P4(219-221)|P6(221-227)|P2(227-
229)|P7(229-231)|P5(231-241)|P6(241-243)|P4(243-245)|P6(245-247)|P4(247-249)|P6(249-251)|P4(251-253)|P6(253-255)|P5(255-2
65)|P4(265-267)|P6(267-269)|P4(269-271)|P6(271-273)|P4(273-275)|P6(275-277)|P4(277-279)|P5(279-289)|P6(289-291)|P4(291-29
3)|P6(293-299)|P2(299-300)|
For P1 in Non_preemptive: Waiting Time = 0 And Turnaround Time = 15
For P5 in Non_preemptive: Waiting Time = 273 And Turnaround Time = 283
For P4 in Non_preemptive: Waiting Time = 273 And Turnaround Time = 289
For P6 in Non_preemptive: Waiting Time = 270 And Turnaround Time = 292

Average Waiting Time For Non_preemptive: 116.57142857142857
Average Turnaround_Time For Non_preemptive: 125.57142857142857
```

Preemptive scheduling:

```
PS C:\Users\DELL> python -u "c:\Users\DELL\Desktop\OS\project2\premmptive.py"

Gantt chart for Premmptive scheduling:

  0 | P1 |   1 | P2 |   4 | P4 |   6 | P5 |  14 | P4 |  16 | P5 |  18 | P4 |  20 | P6 |  22 | P4 |  24 | P6 |  26 | P2 |  28
 | P4 |  30 | P6 |  32 | P7 |  34 | P2 |  36 | P1 |  38 | P4 |  40 | P3 |  42 | P4 |  44 | P6 |  46 | P5 |  48 | P3 |  50
 | P7 |  52 | P4 |  54 | P6 |  56 | P6 |  58 | P2 |  60 | P1 |  62 | P5 |  64 | P6 |  66 | P3 |  68 | P2 |  70 | P7 |  72
 | P2 |  74 | P1 |  76 | P7 |  78 | P5 |  80 | P2 |  82 | P6 |  84 | P1 |  86 | P3 |  88 | P1 |  90 | P7 |  92 | P3 |  94
 | P4 |  96 | P5 |  98 | P1 | 100 | P2 | 102 | P1 | 104 | P7 | 106 | P2 | 108 | P6 | 110 | P3 | 112 | P4 | 114 | P
7 | 116 | P5 | 118 | P7 | 120 | P2 | 122 | P6 | 124 | P1 | 126 | P7 | 128 | P3 | 130 | P4 | 132 | P6 | 134 | P1
 | 136 | P6 | 138 | P1 | 140 | P7 | 142 | P1 | 144 | P4 | 146 | P5 | 148 | P7 | 150 | P6 | 152 | P1 | 154 | P6
 | 156 | P1 | 158 | P2 | 160 | P3 | 162 | P4 | 164 | P6 | 166 | P5 | 168 | P6 | 170 | P1 | 172 | P5 | 174 | P7 |
 176 | P2 | 178 | P6 | 180 | P3 | 182 | P6 | 184 | P1 | 185 | P3 | 187 | P4 | 189 | P5 | 191 | P6 | 193 | P7 |
 195 | P6 | 197 | P7 | 199 | P2 | 201 | P3 | 203 | P6 | 205 | P4 | 207 | P5 | 209 | P1 | 211 | P2 | 213 | P1 |
 215 | P3 | 217 | P2 | 219 | P6 | 221 | P1 | 223 | P4 | 225 | P3 | 227 | P7 | 229 | P3 | 231 | P2 | 233 | P7 |  2
35 | P6 | 237 | P1 | 239 | P2 | 241 | P7 | 243 | P1 | 245 | P2 | 247 | P3 | 249 | P6 | 251 | P5 | 253 | P6 |  25
5 | P7 | 257 | P5 | 259 | P1 | 261 | P6 | 263 | P2 | 265 | P7 | 267 | P3 | 269 | P7 | 271 | P5 | 273 | P3 | 275
 | P4 | 277 | P1 | 279 | P7 | 281 | P6 | 283 | P7 | 285 | P5 | 287 | P6 | 289 | P2 | 291 | P3 | 293 | P7 | 295
 | P4 | 297 | P7 | 299 | P5 | 300


Average Waiting Time for preemptive scheduling: 217.46153846153845
Average Turnaround_Time for preemptive scheduling : 203.76923076923077
```

Multilevel scheduling:

```
Gantt Chart For MultiLevel Queue:

P1(0-8)|P2(8-16)|P3(16-24)|P4(24-32)|P5(32-40)|P6(40-48)|P7(48-56)|P1(56-63)|P2(63-78)|P1(78-86)|P3(86-92)|P2(92-100)|P3(
100-108)|P4(108-116)|P5(116-118)|P6(118-132)|P4(132-140)|P5(140-148)|P6(148-156)|P7(156-172)|P1(172-179)|P2(179-194)|P1(1
94-202)|P3(202-208)|P2(208-216)|P3(216-224)|P4(224-232)|P5(232-234)|P6(234-248)|P4(248-256)|P5(256-264)|P6(264-272)|P1(27
2-279)|P2(279-294)|P1(294-300)|

Average Waiting Time For MultiLevel Queue: 26.642857142857142
Average Turnaround_Time For MultiLevel Queue: 251.42857142857142
```