OS project1 report

第六組

1. 設計

   Sort processes in ascending order of RT if two processes have same RT then compare their id instead.

   We can't get time with resolution of nanosecond. The resolution of time is microsecond. Therefore; the start time of all processes FIFO_1 are the same.

2. 執行範例測資的結果

   FIFO_1

```
[18632.570782] [project1] 29796 1526407858.499512 1526407859.740346
[18633.861505] [project1] 29797 1526407858.499512 1526407861.32100
[18635.233573] [project1] 29798 1526407858.499512 1526407862.405271
[18636.526460] [project1] 29799 1526407858.499512 1526407863.699194
[18637.810470] [project1] 29800 1526407858.499512 1526407864.984241
```

   FIFO_2

```
P1 30111
P2 30112
P3 30113
P4 30114
[21690.390663] [project1] 30111 1526410699.549142 1526410920.20305
[21703.794005] [project1] 30112 1526410699.800157 1526410933.433812
[21706.497437] [project1] 30113 1526410700.49367 1526410936.140032
[21709.143019] [project1] 30114 1526410700.300053 1526410938.787746
```

   FIFO_3

```
[19148.571400] [project1] 29885 1526408354.154776 1526408376.156044
[19162.558621] [project1] 29886 1526408354.669106 1526408390.154571
[19170.612384] [project1] 29887 1526408354.924122 1526408398.214813
[19173.427294] [project1] 29888 1526408355.188319 1526408401.31973
[19176.289292] [project1] 29889 1526408355.491183 1526408403.896271
[19179.050833] [project1] 29890 1526408355.491183 1526408406.660051
[19190.192345] [project1] 29891 1526408355.751237 1526408417.810529
```

   SJF_1

```
P1 29958
P2 29959
P3 29960
P4 29961
[19777.924730] [project1] 29959 1526409000.587762 1526409006.15733
[19780.724210] [project1] 29960 1526409000.843603 1526409008.817465
[19791.282517] [project1] 29961 1526409001.93382 1526409019.384289
[19811.827160] [project1] 29958 1526409000.587762 1526409039.945416
```

   SJF_2

```
P2 30355
P4 30356
P1 30357
P3 30358
P5 30359
24376.189455] [project1] 30355 1526413607.730642 1526413607.979841
[24376.710336] [project1] 30359 1526413607.981132 1526413608.501146
[24387.333510] [project1] 30356 1526413607.730642 1526413619.132892
[24398.033672] [project1] 30358 1526413607.981132 1526413629.841664
[24416.569721] [project1] 30357 1526413607.981132 1526413648.392530
```

   SJF_3

```
P1 30544
P2 30545
P3 30546
P4 30547
P5 30548
P6 30549
P7 30550
P8 30551
[24992.765558] [project1] 30544 1526414216.581955 1526414225.52025
[24992.843136] [project1] 30547 1526414216.831066 1526414225.129659
[24992.868812] [project1] 30548 1526414216.831066 1526414225.155362
[25003.799595] [project1] 30549 1526414217.79907 1526414236.94850
[25014.830656] [project1] 30550 1526414217.327732 1526414247.134874
[25029.123458] [project1] 30545 1526414216.581955 1526414261.439145
[25049.057283] [project1] 30546 1526414216.581955 1526414281.389029
[25073.831949] [project1] 30551 1526414217.575263 1526414306.183613
```

PSJF_1

```
[19309.309667] [project1] 29917 1526408529.317407 1526408537.23653
[19320.670701] [project1] 29916 1526408525.925425 1526408548.393858
[19338.398508] [project1] 29915 1526408523.182278 1526408566.135914
[19360.284721] [project1] 29914 1526408519.517874 1526408588.39748
```

PSJF_2

```
P1 29946
P2 29947
P3 29948
P4 29949
P5 29950
```

```
[19564.222066] [project1] 29947 1526408789.533280 1526408792.141153
[19569.149424] [project1] 29946 1526408786.695139 1526408797.72450
[19579.690548] [project1] 29949 1526408802.201800 1526408807.622081
[19583.302404] [project1] 29950 1526408808.406777 1526408811.236843
[19588.330029] [project1] 29948 1526408792.767861 1526408816.268518
```

PSJF_3

```
P1 30017
P2 30018
P3 30019
P4 30020
```

```
[20434.178960] [project1] 30018 1526409661.485812 1526409662.797956
[20435.548521] [project1] 30019 1526409662.839020 1526409664.168620
[20437.112474] [project1] 30020 1526409664.212833 1526409665.733812
[20441.412413] [project1] 30017 1526409660.150801 1526409670.37228
```

RR_1

```
P1 29995
P2 29996
P3 29997
P4 29998
P5 29999
```

```
[20326.283910] [project1] 29995 1526409553.553410 1526409554.816076
[20327.655665] [project1] 29996 1526409553.553410 1526409556.188932
[20329.011881] [project1] 29997 1526409553.553410 1526409557.546266
[20330.311832] [project1] 29998 1526409553.553410 1526409558.847263
[20331.605642] [project1] 29999 1526409553.553410 1526409560.142113
```

RR_2

```
P1 30968
P2 30969
```

```
[26335.198585] [project1] 30968 1526415549.989294 1526415568.565066
[26340.489345] [project1] 30969 1526415550.486170 1526415573.860043
```

RR_3

```
P1 31380
P2 31381
P3 31382
P4 31383
P5 31384
P6 31385
```

```
[27479.543429] [project1] 31380 1526416669.158449 1526416713.830558
[27483.926361] [project1] 31382 1526416675.887950 1526416718.217003
[27487.690219] [project1] 31381 1526416672.672430 1526416721.983891
[27508.486810] [project1] 31385 1526416681.626306 1526416742.797208
[27513.696208] [project1] 31384 1526416680.58586 1526416748.10601
[27516.284128] [project1] 31383 1526416679.30166 1526416750.600790
```

3. 比較實際結果與理論結果，並解釋造成差異的原因

   In any testing data, Pi ST equal to Ri. Not quite as expected.

   In any testing data, every ETs are in the expected order.

   In any testing data, every IDs are in the expected order.

4. 各組員的貢獻

   簡暐晉: write src code, compile kernel, run testing data, discuss how to write the report.

   周明德: discuss how to write src code, write the report.

   沙佳哲: none

   劉昕: none