Objective

See what happens using time slices of varying lengths. Find the most efficient quantum using a round-robin selection algorithm.

Experiment

Tested with 10 processes, a variety of quantum. Each process time is as follows:

proc001 800

proc002 1500

proc003 250

proc004 3000

proc005 3050

proc006 100

proc007 300

proc008 750

proc009 1000

proc010 2050

Result

|  |  |  |
| --- | --- | --- |
| Number of processes | Quantum | Total CPU time taken |
| 10 | 250 | 12955 |
| 10 | 500 | 12880 |
| 10 | 1000 | 12844 |
| 10 | 2000 | 12829 |
| 10 | 4000 | 12820 |

Conclusion

From the result, with the same number of processes, I could see **the tendency of a decrease in the total CPU time taken as the quantum increase.** The most efficient quantum for this case was explored by changing the quantum between 2000 and 4000 and detected that **with 3050 quanta, the total CPU time taken reaches its maximum, 12820.**