

# Operating-system homework#3

## Programming problems

Kernel: 6.8.1-arch1-1

gcc (GCC) 13.2.1

10.44

```
(hw4) wj461 | ▶~/code/os/HW4 | ▶main ± > python page_replacement.py
Enter the number of frames: 3
Random Page String: [6, 3, 1, 8, 0, 4, 7, 2, 5]
[6, None, None]
[6, 3, None]
[6, 3, 1]
[8, 3, 1]
[8, 0, 1]
[8, 0, 4]
[7, 0, 4]
[7, 2, 4]
[7, 2, 5]
FIFO: 9
[6, None, None]
[6, 3, None]
[6, 3, 1]
[8, 3, 1]
[8, 0, 1]
[8, 0, 4]
[7, 0, 4]
[7, 2, 4]
[7, 2, 5]
LRU: 9
[6, None, None]
[6, 3, None]
[6, 3, 1]
[8, 3, 1]
[0, 3, 1]
[4, 3, 1]
[7, 3, 1]
[2, 3, 1]
[5, 3, 1]
OPT: 9
```

11.27

```
Input initial position of the disk head : 300
FCFS: 1647460
SCAN: 5292
CSCAN: 4989
```