a1/run_on_queue.sh

```bash
1   #!/bin/bash
2
3   ## Give the Job a descriptive name
4   #PBS -N life_par
5
6   ## Output and error files
7   #PBS -o life_par.out
8   #PBS -e life_par.err
9
10  ## How many machines should we get?
11  #PBS -l nodes=1:ppn=8
12
13  ## How long should the job run for?
14  #PBS -l walltime=01:00:00
15
16  ## Module Load
17  module load openmp
18
19  ## Defaults if not passed via -v
20  : "${THREADS:=8}"
21  : "${N:=1024}"
22  : "${STEPS:=1000}"
23
24  ## Start
25  cd /home/parallel/parlab05/a1/ || exit 1
26
27  # --- OpenMP runtime settings ---
28  export OMP_NUM_THREADS="${THREADS}"   # 1,2,4,6,8 per the assignment
29
30  # Run and capture outputs by config
31  RESULT_DIR="benchmarks/N${N}_T${THREADS}"
32  mkdir -p "${RESULT_DIR}"
33
34  ./life_par "${N}" "${STEPS}" \
35    > "${RESULT_DIR}/life_${THREADS}_${N}.out" \
36    2> "${RESULT_DIR}/life_${THREADS}_${N}.err"
37
38
```