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Cs342 Project 1 Report

The link below demonstrates the test of my both programs with various inputs,and shows that both programs are correct.
https://drive.google.com/drive/folders/1oHNImAoXUwN-yvEJYOeBjztwAlKwSSE8?usp=sharing
(The content of the input files can be seen through the link)

Time for pwc

1.file(ex1)
real 0m0,014s
user 0m0,001s
sys 0m0,002s

3.file(ex1 ex2 ex3)
real 0m0,015s
user 0m0,004s
sys 0m0,000s

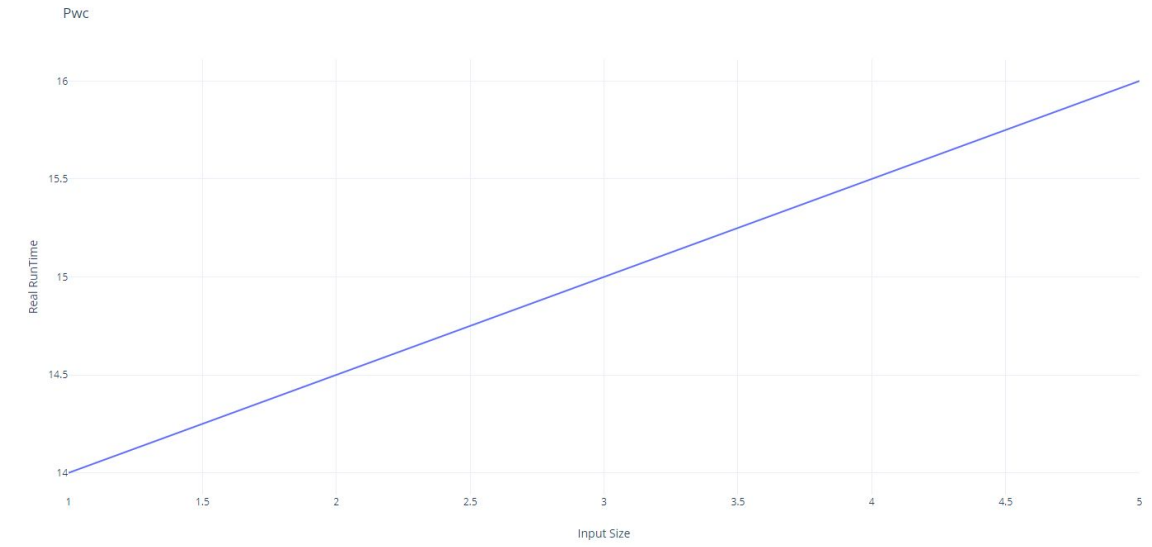
5.file(ex1 ex2 ex3 ex4 ex5)
real 0m0,016s
user 0m0,004s
sys 0m0,002s

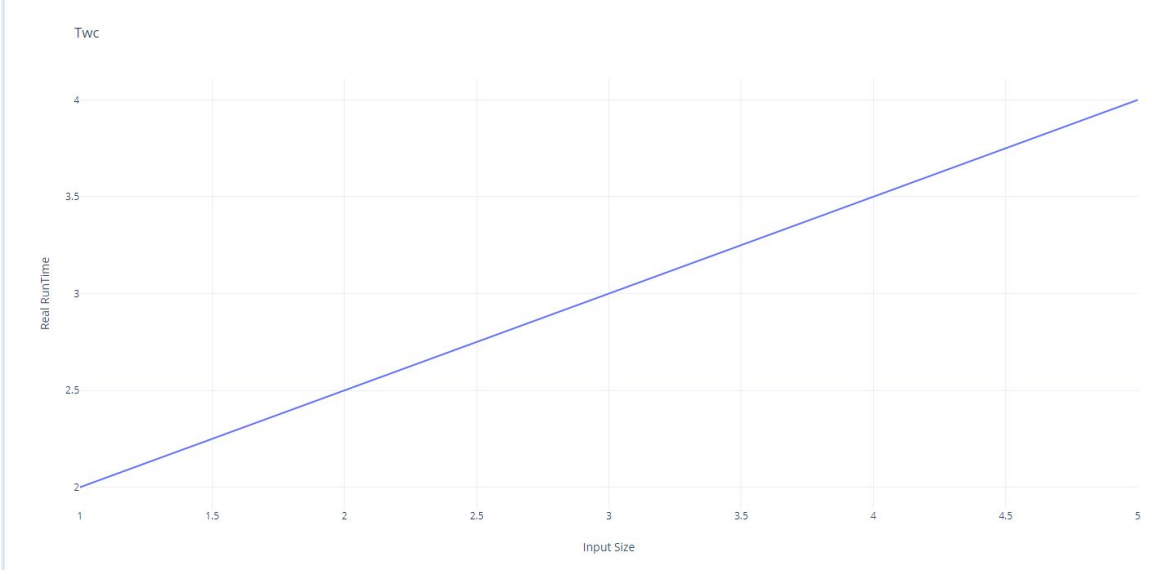
Time for twc

1.file(ex1)
real 0m0,002s
user 0m0,002s
sys 0m0,000s

3.file(ex1 ex2 ex3)
real 0m0,003s
user 0m0,003s
sys 0m0,000s

5.file(ex1 ex2 ex3 ex4 ex5)
real 0m0,004s
user 0m0,000s
sys 0m0,004s





Real time of twc runs faster than pwc. Threads run concurrently,share memory.,Processes do not run concurrently,do not share memory,so processes have to wait a lot more than threads. In that sense,generally run times of threads may be expected to less than processes.I would expect sys time of pwc to be higher than twc,since the pwc communication uses a lot of message queues.However, for computers which can run billions of instructions per second,I guess it makes sense to not the observe critical time difference by using 5 txt files as inputs and 300 line programs.Based on the graphs,real time increases with number of input files linearly.