NCTU OS HW2 report 2018

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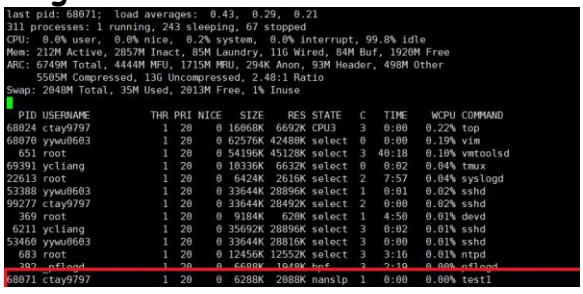
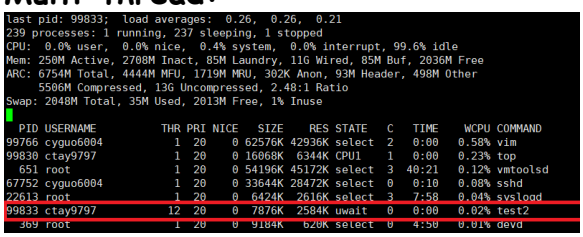
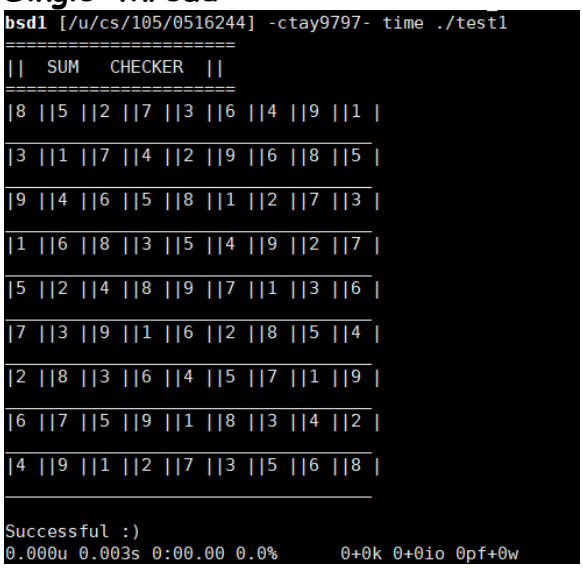
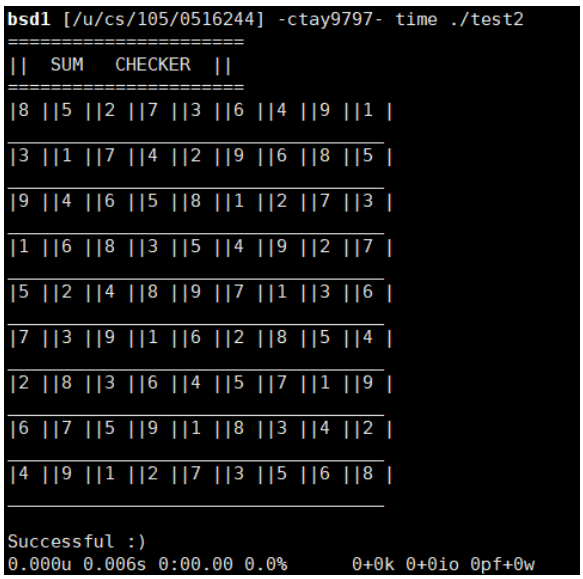
Question	Answer
Q1. **Briefly describe about your design for the problem "Sum Checker" and total num of threads you used in your code.**	**Single-thread:** Use only one thread and three functions. One function loop from first row to last row and check if the sum for each row is same. Another function do the same operation on each column. Last function checks if each subgrid sum is same. Finally compare the sum result returned from each function. If is same then print "Successfully". **Multi-thread:** Use 12 thread in total and three function. Functions are the same as single-threaded version. Distribute one thread to check row sum, one thread to check column sum, nine threads to check all subgrid, one thread for main function.
Q2. **Show your thread info screenshots while "Sum Checker" code running.**	**Single-thread:**  **Multi-thread:** 

Q3. **Compare the time between Single-thread and Multi-thread.**	**Single-thread:**  **Multi-thread:**  **Time taken in multi-thread is longer since it need to collect information from all thread while sum-checker is just an easy job.**
Q4. **What you learned from doing OS hw2 or some improvements you want to say to TAs.**	**Learn to use pthread for multi-thread programming.** **Hope TA can describe the problem in more detail.**

p.s You can reference to homework info pdf and show your answer as the format for Q2 and Q3.