**Lab Assignment # 4**

1. Write a Program for validation of a Sorting Program executed by child processes. The parent process will give an unsorted array to 2 child processes. One child will run correct version of the sorting program and the other child will run an incorrect version. Then, the results will be communicated to the parent process which will validate the results with the sorted output. (Use Pipe)
2. Write a program to implement merge sort as follows: The parent process will provide two halves of an unsorted array to 2 child processes. The child processes then communicate the sorted array to the parent and then parent implements merge procedure to generate the final result. (use named pipe)
3. Implement bidirectional chat application as follows: The sending process A will send message to receiving process B through an intermediate agent process C. The process C can receive as well as send message to other two processes. The message should be displayed in the two different terminals associated to sending and receiving processes. (use name pipe)

NB: Home Assignment Submission on Hare and Tortoise Game by 27.08.9018.