CS 211 Data Structures and Algorithms Lab
Spring, 2022-23

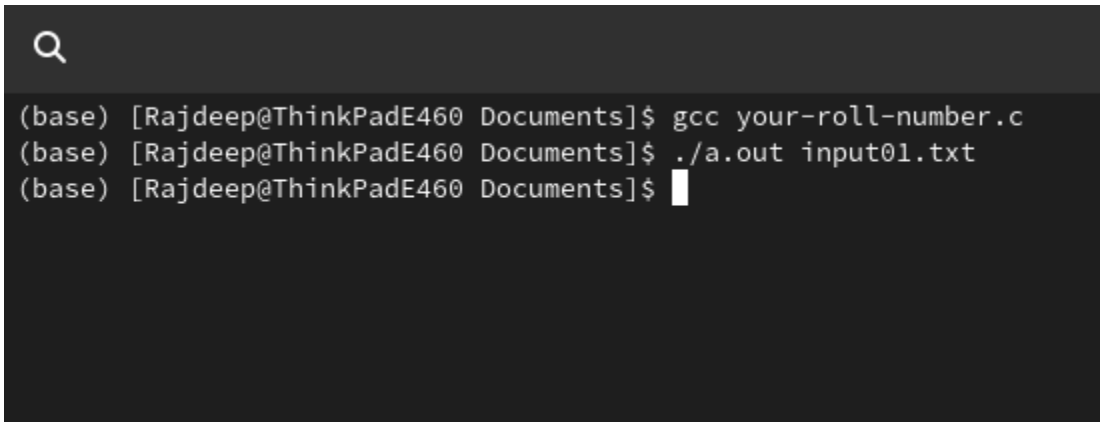
Assignment no.	2
Objective	To implement Quick sort
Total marks	6
Due (without penalty)	7th May (Sunday) 11:59 pm
Penalty for violating naming convention(s)	10%

Command-line argument:
Your program should receive a file (input file) as a *command line argument.*

Input file:
The input file will be a text file where each line contains an integer.

Task:
Implement **Quick sort** to sort the integers provided in the input file in ascending order, using recursion. Your Program should print the sorted array in the output file named as ***quicksort.txt.*** Every line in ***quicksort.txt*** should contain exactly one integer (the first line contains a smallest integer, and so on).

Snapshot (for execution):



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Submission and evaluation:

- The program you submit should output: '***quicksort.txt*** when we run the program for evaluation.
- The main file of your program should be named after your IIT Dharwad roll number. Like ***<roll_no>.c***, where ***roll_no*** specifies your IIT Dharwad roll number.Ex: 220010001.c.
    - Do the stress test of your program well before submission.
    - You may use the attached sample input files for testing; the corresponding output files are also attached;
    - We have some hidden inputs with us to test your program. *The marks you obtain are purely based on whether your program correctly gives outputs for the hidden inputs.*
- If your program has only a single source file, please submit the file as it is. If your program has multiple source files, please submit your code as a zip file where the name of the zip file should be your roll number. It **is important that you follow the input/output conventions exactly** (including the naming scheme) as we may be doing an automated evaluation. ***There will be a penalty of 10% (on the mark you deserve otherwise) if you do not follow the naming conventions exactly.***
- Follow some coding style uniformly. Provide proper comments in your code.
- *Submit only through moodle*. ***Submit well in advance***. Any hiccups in the moodle at the last minute is never acceptable as an excuse for late submission. Submissions through email or any other means will be ignored.
- Acknowledge the people (other than the instructor and TA) who helped you to solve this assignment. The details of the help you received and the names of the people who helped you (including internet sources, if applicable) should come in the beginning of the main file as a comment. ***Copying others' programs and allowing others to copy your program are serious offenses and a deserving penalty will be imposed if found.***

- To be considered for the evaluation without penalty, you have to submit your program by the due date. ***No single minute relaxation on late submission)***.
- If the output is not matching with the expected output, then evaluation is done based on the logic of the code and partial marks will be awarded.