

- 1) A palindrome is a string which reads the same from left to right or right to left, e.g., madam, tallat, 121, etc. Write a function (client code) which takes a string as input and tells whether the string is a palindrome or not? Think how you can use a stack and a queue to solve this problem. For implementation, use the stack and queue classes from STL.
- 2) Write a function (client code) which takes a queue as a parameter and reverses it. Use queue class from STL.
- 3) Implement the operator== and operator< functions (ADT code) for array-based Queue ADT.

Instructions (read carefully):

- Submit on MS Teams in due time.
- Properly indent and comment your source code. Do not use conio.h, as it is not part of standard C++. Do not use clear screen function. Do not use getch function, instead use the standard getchar function (if required).
- Any genuine efforts in each part, would result in at least 50% marks (in that part). Make sure you put your best efforts to solve every part. Each part carries its own marks.
- You are getting 50% marks for any genuine efforts in all the parts to encourage you to learn, even if your program does not compile and is full of bugs). Therefore, please do not plagiarize! Plagiarism includes taking help in any form including but not limited to code, concept or idea for the solution, algorithm, and pseudocode. Taking help from any source including but not limited to classmates, seniors, internet, or AI is strictly prohibited. In case your code is plagiarized, you'll get -50% absolute marks of the whole assignment. For example, if the assignment is of 50 marks, you will get -25 marks. **Even a single plagiarized statement will count as plagiarism for the whole assignment.** Plagiarism in any two assignments would result in getting failed in the course.