Assignment#1

Deadline: 11/06/2023
Instructions:
Only C++ programming language is accepted.
You must write the comments for all the questions.
Plagiarism will not be accepted.
We strongly recommend doing these questions by yourself; if you face any difficulty, ask over the group for clarification.

1. Write a C++ program to swap two integers without using any extra space and inbuilt the "swap" function.

2. Write a code for calculating nCr, without actually calculating factorials of the numbers.

3. You are given strings, one in each line as input. The string contains lowercase and uppercase alphabets. Your task is to convert all the lowercase alphabets to uppercase and all the uppercase alphabets to lowercase and print the output in each row.
   Ex: If the given string is **IITKanpur,** the output should be **iitKANPUR.**

4. Write a program that declares a structure named Student with the following members:
   name: A string that stores the student's first name.
   Roll Number: An integer that stores the student's roll number.
   department: A string that stores the student's department.
   Your program should take the input of these details and store them in an array. And your program should also be able to print the student's information when the corresponding roll number is provided.

   Input:
   The first line will contain **n,** the number of input lines. And in the following n lines-
   In each line, one query will be given.
   If the line starts with 1, then the information in the same line is to be stored, and if it starts with -1, then you should output the corresponding student's information. If there is no information stored, then print -1.

   Example:
   Input
   5
   1 Alexander 230663 MTH
   1 Charlotte 230649 CSE
   0 230649
   1 Carry 240876 ES
   0 230663