**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Advanced Programming in C++**

**Lab Exercise 5.24.2024**

1. Write a C++ function to create a new string which is 4 copies of the 2 front characters of a given string. If the given string length is less than 2 return the original string.   
    Sample Input:  
    "C Sharp"  
    "JS"  
    "a"  
    Sample Output:  
    C C C C  
    JSJSJSJS  
    a
2. Write a C++ function to check two given integers whether either of them is in the range 100..200 inclusive.    
    Sample Input:  
    100, 199  
    250, 300  
    105, 190  
    Sample Output:  
    true  
    false  
    true
3. Write a C++ function to check if a string 'yt' appears at index 1 in a given string. If it appears return a string without 'yt' otherwise return the original string.    
    Sample Input:  
    "Python"  
    "ytade"  
    "jsues"  
    Sample Output:  
    Phon  
    ytade  
    jsues
4. Write a C++ function to create a new string made of every other character starting with the first from a given string.   
    Sample Input:  
    "Python"  
    "PHP"  
    "JS"  
    Sample Output:  
    Pto  
    PP  
    J
5. Write a C++ function to check whether the sequence of numbers 1, 2, 3 appears in a given array of integers somewhere.    
    Sample Input:  
    {1,1,2,3,1}  
    {1,1,2,4,1}  
    {1,1,2,1,2,3}  
    Sample Output:  
    true  
    false  
    true