Objectives:

➢ C++ Programming Pointers

➢ C++ File name is **StudentID_qNO.cpp**

➢ Note: Write comments in your code for explaining steps.

➢ Note: Pay attention to the indentations in your code.

Question 1: Write a program that get an input from user for integer, float, char and string. Then write array elements to the screen. Operations should be written in accordance with dynamic memory allocation.

Sample output:

Enter the value of integer: 5
Enter the value of float: 5.5
Enter the value of char: A
Enter the value of string: AA

Values belonging to types:
The value of integer: 5
The value of float: 5.5
The value of char: A
The value of string: AA

Question 2: Write a program that fill an array from 0 to size-1, and then write array elements to the screen. The array size has to get from user. Operations should be written in accordance with dynamic memory allocation.

Sample output:

Enter the size of array: 5
Array:
    0. element: 0
    1. element: 1
    2. element: 2
    3. element: 3
    4. element: 4

Question 3: Write a program to insert a dash character (-) between two odd numbers in a given string of numbers.

Sample output:

Input:123456789

Result-> 123456789

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Input: 1345789

Result-> 1-345-789

Input: 34635323928477

Result-> 3463-5-323-92847-7

Question 4: Write a program to check if a given string is a Palindrome or not. A palindrome is a word, number, phrase, or other sequence of characters which reads the same backward as forward, such as madam, racecar.

Sample outputs:

Is **madam** a Palindrome?

True

Is **racecar** a Palindrome?

True

Is **abc** a Palindrome?
False