DMA Homework-1

Do the following question and submit on google classroom.

(Only CPP files)

(example) **Q1_22_1234.cpp**

1. Write a C++ program to dynamically allocate memory for an integer variable and then deallocate it.
2. Create a program that allows the user to dynamically allocate memory for an integer array of a user-specified size and then fill it with values.
3. Write a C++ program that dynamically allocates memory for two strings and then concatenates them into a new string.
4. Implement a matrix multiplication program using dynamic memory allocation for two matrices.
5. Write a C++ program that dynamically allocates memory for a string and then reverses it in-place.
6. Create a C++ program that dynamically allocates memory for a 2D integer array and fills it with values. Allow the user to specify the dimensions.
7. Write a C++ program that dynamically allocates memory for an array of strings. Allow the user to enter multiple strings and store them in the array.
8. Write a C++ program that allows the user to input a list of strings of varying lengths. Dynamically allocate memory to store these strings and then display them in reverse order.