Assignment-5

1. Given an array of integers, find the maximum and minimum element from this array using a function
"void MaxMin (int arr[], int size, int *max_ptr, int *min_ptr)", where "size" denotes the number of
elements in the array. Print the maximum and minimum values from the main() function.
The array might be hard-coded in your "main()" function.

input: none
output : value of max and min from "main()". [2]

2. Given an array of integers, reverse the original array using a function "void reverse(int arr[])".
For swapping two elements use another function "void swap (int *aptr, int *bptr)". Finally,
print the reverse of the array from the "main()" function.
The array might be hard-coded in your "main()" function.

input: none
output: the reversed array. [3]

3. A square N X N matrix "A" is said to be "orthonormal" if A*AT = I where "AT" is the transpose of the matrix "A" and "I" is the NXN identity matrix. Implement the following functions to check whether the matrix "A" stored in a two dimensional array A[N][N] is orthonormal:
(a) "void matTranspose (float A[][N], float AT[][N])" to calculate the transpose of "A" and store it in "AT". [3]
(b) "void OrthoNormal(float A[][N], float AT[][N])" - makes use of the function "matTranspose()" to print whether "A" is orthonormal or not. [2]

The matrix "A" might be hardcoded in "main()". Write the entire program in a single file.

input: none
output: whether matrix "A" is orthonormal or not.