Objective
To practice and learn the following coding skills:

- Loops (For loops, do-while, foreach)
- Nested loops
- Switch-case
- strings

Instructions
We would like to write a program that gets a sequence of English letters from the user and validates if the letters are within the accepted set of letters and then draws a block shape of them.

Step 1: write your full name and student ID as a multiline comment on top of your program.

Step 2: define a const string and initialize it with the accepted English letters "EHLNTXZ".

Step 3: define a method named *GetUserString*. This method has 1 input and 1 return value. The input parameter is the const string that contains the accepted English Letters. The method returns the string that the user has entered. Inside the method, you must write a do-while loop to validate the user input and the loop keeps repeating until all characters entered by the user are the letters (characters) in the accepted English letters, i.e. "EHLNTXZ". This is a pseudo-code for the code in the body of the method:

do {

    invalidCharacters string is set to empty string
    Show the user a message for getting the input
    Get the input string from the user
    Check every character of the input string (hint: use a loop) {
        If the character is not in the set of accepted characters
        (hint: use IndexOf method: if (allowedCharacters.IndexOf(char.ToUpper(ch)) == -1))
            Add the character to the invalidCharacters string
    When finished checking all input characters, show an error message if any unaccepted letter has been entered

} while there are invalidCharacters in the input string (or while invalidCharacters string is not empty)

Step 4: Write a method to get the dimension of the block letter from the user. The dimension must be an odd number greater or equal to 3. The signature of the method must be as follows:

```
dimension = GetUserInput("an odd integer number greater than 2 for the dimension of the shape: ");
```

like the method in step 3, you must write this method in a way that it keeps asking the user to enter a valid number (an odd integer number greater than 2). In fact, this method does not return a value until the value entered by the user is valid.

Step 5: Write a for-loop that go through all the characters of user input string

Step 6: inside the loop from Step 5, write a Switch-Case that checks every character within the input string and call a method for drawing the shape of that English Letter. For example, for drawing X, DrawX(dimension) is called, for drawing E, DrawE(dimension) is called.

Step 7: you must write methods for drawing the shape of **the letter. One sample method for drawing X is given below. You must write the other methods for drawing E, H, L, N, T, and Z similarly.**

```csharp
private static void DrawX(int dimension)
{
    WriteLine();
    for (int row = 1; row <= dimension; row++)
    {
        for (int col = 1; col <= dimension; col++)
        {
            if (col == row || row + col - 1 == dimension)
            {
                Write("*");
            }
            else
            {
                Write(" ");
            }
        }
        WriteLine();
    }
    WriteLine();
}
```

You are provided with an executable file for your test. Make sure your program behaves just like this executable file of the assignment.
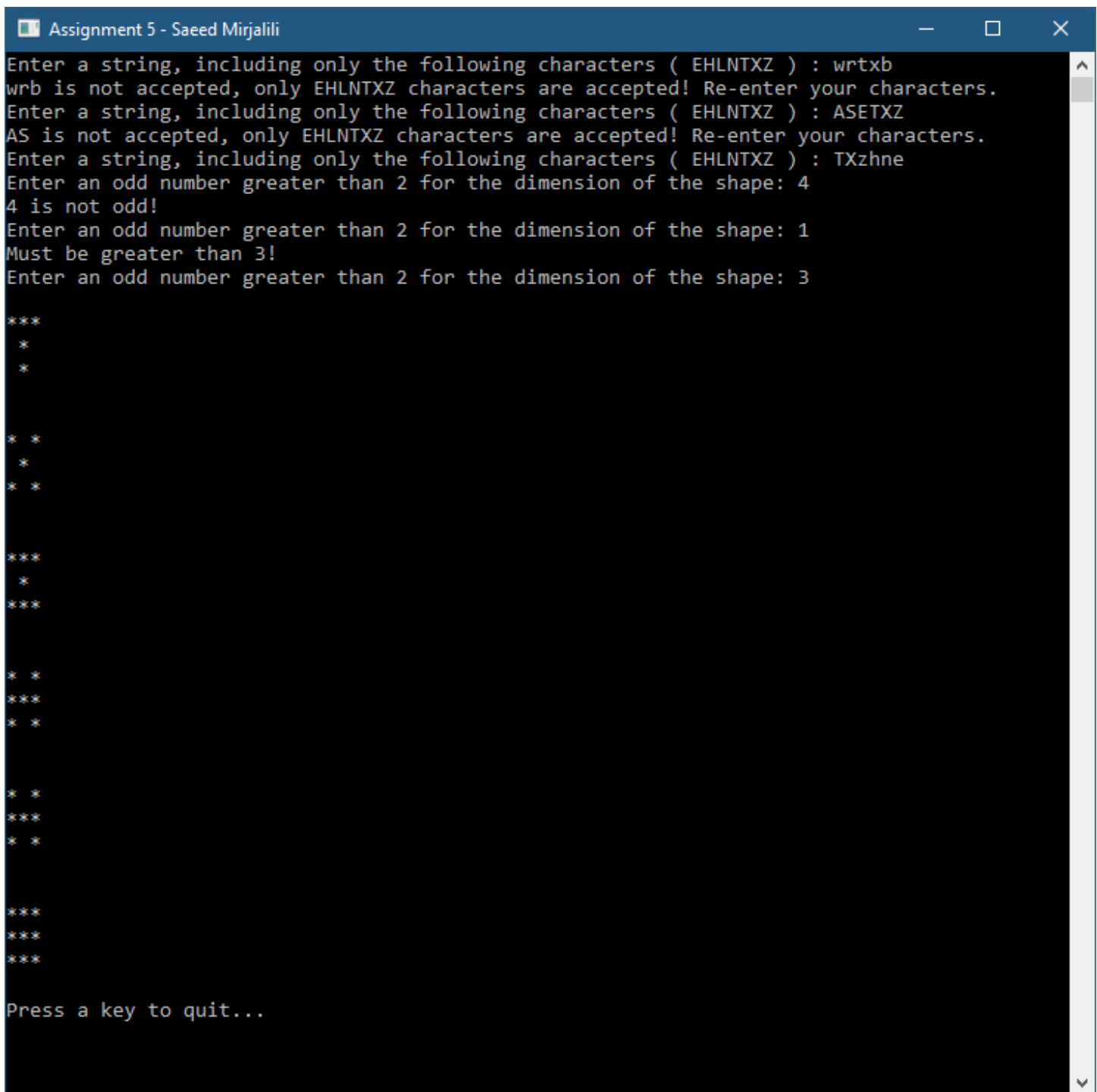
Requirements
1. On very top of your program, before using directives, update the multiline comment with your name.
2. Make sure your code looks neat and tidy. Press Ctrl+KD in Visual Studio to format your code based on coding styles.
3. Respect Naming Conventions for constants (ALL_CAPS), variables (camelCase), Method names (PascalCase).

Submissions
Please submit the following items to the corresponding assignment folder on BlackBoard prior to the deadline:

- A zip/archive folder containing the source code file (.cs file). Rename the zip file name as a#_xy.zip where # is assignment number x is your first name and y is your last name. For example, when I submit my work for assignment 2, I will rename the zip file as a2_SaeedMirjalili.zip
- If you do not know how to zip a file or folder, search Google for it (for example click here)

One execution screenshot

```
Assignment 5 - Saeed Mirjalili                                    —    □    ×

Enter a string, including only the following characters ( EHLNTXZ ) : wrtxb
wrb is not accepted, only EHLNTXZ characters are accepted! Re-enter your characters.
Enter a string, including only the following characters ( EHLNTXZ ) : ASETXZ
AS is not accepted, only EHLNTXZ characters are accepted! Re-enter your characters.
Enter a string, including only the following characters ( EHLNTXZ ) : TXzhne
Enter an odd number greater than 2 for the dimension of the shape: 4
4 is not odd!
Enter an odd number greater than 2 for the dimension of the shape: 1
Must be greater than 3!
Enter an odd number greater than 2 for the dimension of the shape: 3

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Press a key to quit...

```