A computer science instructor is designing a tool to help students understand ASCII values and string manipulation. The utility removes characters with even ASCII codes from a word and reverses the remaining ones, offering a hands-on way to explore how data can be transformed for security or encoding purposes.

In the class **Program**, implement the below-given method.

Method	**Description**
public string CleanseAndInvert(string input)	This method takes a **word** as input and performs a series of transformations and **return** a **customized format of string**. The transformation logic includes: 1) The input must not be null, and it must contain at least **6 characters long**. If it is shorter or null, the function should return an empty string. 2)The input must not contain any space, digit or special characters. If not, the function should return an empty string. Password Generation Logic: • Convert the input to **lowercase**. • Remove all characters whose **ASCII values are even numbers**. • **Reverse** the remaining characters. • In the reversed string, convert characters that have **even positioned character (0 based index)** to **uppercase**. Refer to the sample input and output. Return the generated key.

In the **Program** class, the **Main** method,

- Prompt the user to enter a string input.

- Call the **CleanseAndInvert** method if the input is valid and **print** the output as "**The generated key is - <generated key>**".

- If the method returns empty string, then display "**Invalid Input**". Refer to the **sample inputs/outputs**.

Note:

- Do not edit the existing code template.
- In the Sample Input / Output provided, the highlighted text in **bold** corresponds to the input given by the user, and the rest of the text represents the output.
- Implement the business requirements within the main method. Please do not change the class name.
- Do not use the **Environment.Exit()** to terminate the program.

Sample Input 1:

Enter the word

Aeroplane

Sample Output 1:

The generated key is - EaOeA

(**Explanation**: Input contains even ASCII characters.)

Sample Input 2:

Enter the word

Cowages

Sample Output 2:

The generated key is - SeGaWoC

(**Explanation** : Input doesn't contain even ASCII character.)

Sample Input 3:

Enter the word

Magic

Sample Output 3:

Invalid Input

(**Explanation** : Length of the input is less than 6.)

Sample Input 4:

Enter the word

Kinder World

Sample Output 4:

Invalid Input

(**Explanation** : Input contains space.)

Sample Input 5:

Enter the word

B@rbie

Sample Output 5:

Invalid Input

(**Explanation** : Input contains special character.)