Introduction to Programming

Assignment 5

1. Write a Python program that takes two strings as input from the user. Then print a new list with the common characters regardless of their case in both strings. All characters in the list must be in uppercase and it should be sorted in ascending order.
   Note: If you have duplicate characters show it once in your output list. Your input & output must be formatted as shown in below sample input and output.

   Sample input and output:

   Enter String 1: Cart
   Enter String 2: catch
   Common characters: ['A', 'C' ,'T']

2. An anagram is a play on words created by rearranging the letters of the original word to make a new word or phrase. So, we can say two words are anagrams if they contain all the same letters but in a different order.
   Write a Python program that takes two strings from the user and tells if the given strings are anagrams or not.

   Note: Your input & output must be formatted as shown in below sample input and output.

   Sample input and output 1:

   ```
                   PLAY ANAGRAM!
   ================================
   Enter Word 1: dusty
   Enter Word 2: study


   ================================
             Word 1 & 2 are anagram!
   ================================
   ```

Introduction to Programming

Sample input and output 2:

```
                PLAY ANAGRAM!
================================
Enter Word 1: dustyyyy
Enter Word 2: study


================================
        Word 1 & 2 are not an anagram!
================================
```

Submission:

- **You must submit a .py file**
- **Do your own work!** A mark of 0 will be assigned to the entire assignment for work that is not your own and will be handled as per the **Code of Student Rights and Responsibilities**
- **All work must be run and validated to ensure that it is free of errors**. Any assignment that is submitted showing errors that prevent it from running will receive a mark of 0**.**
- **Only apply the knowledge that we have learned in class to this point.** Answers using any syntax or knowledge that we have not covered yet will receive a mark of 0 for that question.
- **Any assignment submitted past the posted due date and time will receive a mark of 0**. Do not wait until the last minute to complete and submit your work.