**UCF-COP 3223-unit6.hw**

Write a C program that asks the user to enter a string and displays a report that shows the most occuring character, how many lower case letters, how many upper case letters and how many digits.

After the report is printed, print the upper case of all the letters in ascending order, in addition to the original entered string. See sample runs.

**You must use the code skeleton provided at the end. You are NOT supposed to change anything to the given prototypes and to the main function (You may add other functions if you see fit).**

Sample Run1:

Enter your string: **a6Bc D3! F?.**

All characters appears once

There is/are 2 lower case letter(s)

There is/are 3 upper case letter(s)

There is/are 2 digit(s)

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**ABCDF**

**a6Bc D3! F?.**

Sample Run2:

Enter your string: **aBc XAy3!af**

The most occuring character is: a

There is/are 5 lower case letter(s)

There is/are 3 upper case letter(s)

There is/are 1 digit(s)

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**AAABCFXY**

**aBc XAy3!af**

**The following function protoptypes must be implemented (You may add other functions if you want)**

**1)**

**char most\_occuring\_character ( char \* str);**

**//this function retuns the char that appears the most. It returns -1 if that doesn’t apply**

**2)**

**void count\_low\_up\_digit ( char \* str, int\* lower, int\* upper , int \*digit);**

**//this function counts how many lower, upper and digit characters.**

**3)**

**char \* Up\_letters ( char \* str);**

**//This function returns the sorted upper case letters as shown in sample runs…**

**Your .c file should be something like:**

**//unit6.hw**

**//Group members: John Jones, Jenna Johnson, James Junaid**

**/\* ALL GROUP MEMBERS MUST SUBMIT THE SAME .c file \*/**

**//include directives go here…**

**//Prototypes**

**char most\_occuring\_character ( char \*str);**

**void count\_low\_up\_digit ( char \*str, int \*lower, int \*upper , int \*digit);**

**char \* Up\_letters ( char \*str);**

**//Function definitions…**

**int most\_occuring\_character ( char \*str){**

**//Your code goes here**

**}**

**void count\_low\_up\_digit ( char \*str, int \*lower, int \*upper , int \*digit){**

**//Your code goes here**

**}**

**char \* Up\_letters ( char \*str){**

**//Your code goes here**

**}**

**//the following main function is to remain UNCHANGED!**

**int main() {**

**char str[50] ="";**

**char \*upper\_sorted;**

**char most\_occur = -1;**

**int lower\_case=0 , upper\_case=0, digits=0;**

**printf("Enter your string: ");**

**gets(str);**

**most\_occur = most\_occuring\_character ( str );**

**if ( most\_occur == -1 ) printf ("All characters appears once\n");**

**else printf ("The most occuring character is: %c \n", most\_occur);**

**count\_low\_up\_digit ( str, &lower\_case, &upper\_case , &digits );**

**printf ("There is/are %d lower case letter(s)\n", lower\_case);**

**printf ("There is/are %d upper case letter(s)\n", upper\_case);**

**printf ("There is/are %d digit(s)\n", digits);**

**upper\_sorted = Up\_letters ( str );**

**printf ("%s\n", upper\_sorted);**

**printf ("%s\n", str);**

**return 0;**

**}**