

# **Foundations of Technical Programming**

## **Week 6**

### **HD Task**

You may be asked to demonstrate/explain your work to the tutor, if you are absent/unavailable or fail to demonstrate properly, zero marks will be awarded.

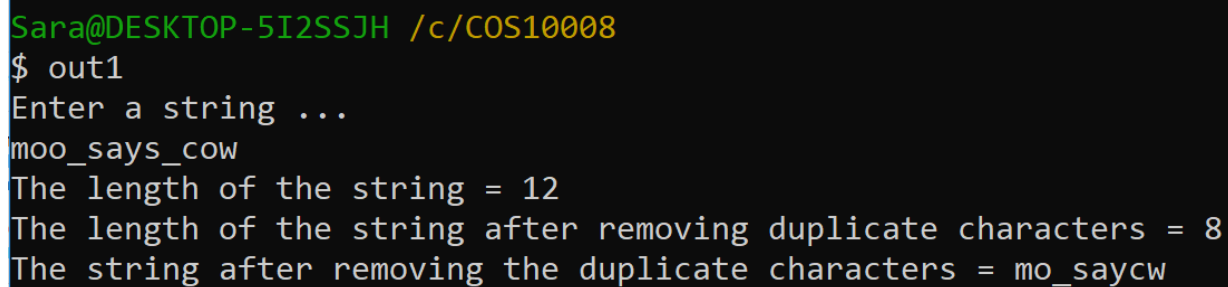
**Reminder:**

**You must analyse the each questions by identifying the input, output and the process.  
Your submissions should have flowchart, C-program and the screenshot of the output.**

**Task HD 6. 1**

Write a C program based on the following instructions

1. Create a character array of size 20
2. Read a string (without spaces) of size  $\leq 19$  characters into the array.
3. Find the length of the string and print it.
4. Remove all duplicate characters in the array. As you remove a duplicate character from the array, the remaining characters should be shifted forward by one position.
5. Print the length of the new string.
6. Print the new string.
7. Attach the output screen shot as shown below.



```
Sara@DESKTOP-5I2SSJH /c/COS10008
$ out1
Enter a string ...
moo_says_cow
The length of the string = 12
The length of the string after removing duplicate characters = 8
The string after removing the duplicate characters = mo_saycw
```