

## Assignment -3( 9-Mar-2022)

### Part -2 (Based on Strings)

Deadline – 19<sup>th</sup> January 2022

(To be uploaded in VTOP)

1. Write a C program to count maximum and minimum occurrence for a given character ch in a given string s1.
2. WAP a program to reverse the given string and display the resultant string
3. Write a C program to concatenate the following quotes of Dr. A. P. J  
**“If you fail, never give up because FAIL means “First Attempt in Learning.”**  
**“All of us do not have equal talent. But, all of us have an equal opportunity to develop our talents.”**  
**“Excellence is a continuous process & not an accident”**  
Finally display the output in the following format  
Dr. A. P. J quotes follows.....(with the resultant string).
4. Considering the given quotes of Dr. A. P. J stated above, find the frequency of occurrence of all the special characters in the given quotes.
5. Write a C program to count the number of words, number of sentences and finally the length of the string without using any built- in functions of strings.
6. WAP to remove all characters from the given string except the alphabet character and display the final string  
(Hint: input: C-\*O123V^&I@#D, output: COVID)
7. Write a program in C to replace the spaces of a given string “ARISE, AWAKE, and STOP NOT UNTIL THE GOAL is ACHIEVED” with a special character of your choice.
8. WAP to split the given sentence into words and display the words one after the other.

### Challenging programs

1. Write a program to find the number of times a given word 'the' appears in the given string “Best brain of the nation may be found in the last benches of the classroom”.
2. WAP to remove the duplicate characters from the given string, S and print the resultant string, RS  
(Hint: S ← AabCaBcdEGzYz , RS ← AbCdEGzY)
3. WAP to remove all characters from the given string except the alphabet character and display the final string (without using the second string)  
(Hint: input: C-\*O123V^&I@#D, output: COVID)

4. WAP to insert a substring anywhere in between the given string except in the first and last position of the string. Finally display the resultant string on inserting the sub-string.
5. WAP to reverse words in the given strings and display the reversed string  
(HINT: Input, s ← "Programming is my hobby" Output, s ← "hobby my is Programming")

**Optional (Just practice this program also):**

WAP to replace a substring in a given string with another substring.

Input: String: ABCDEFG

Substring to be replaced is CDE from the given string with another substring \*\*\*

Output: AB\*\*\*FG

**Array of structures**

1. Write C program to accept batting information of cricket team using structure. It contains player name and runs scored by a player. Calculate total runs scored by the cricket team.
2. Write a 'C' Program to create a structure of student having fields roll\_no, stud\_name, mark1, mark2, mark3. Calculate total marks and average marks. Arrange the records in descending order of marks.
3. Write a menu driven program in C to create a structure employee having fields empid, empname, salary. Accept the details of 'n' Employees from the user and perform the following operations using function.  
- Search by Emp-Id - Display All - Display Names of Employee having Salary > 10000

Write a program to declare a **pointer to structure** and display the contents of the structure.

1. Write C program to accept batting information of cricket team using structure. It contains a player's name and runs scored by the player. Calculate total runs scored by the cricket team.
2. Write a 'C' Program to create a structure of students having fields roll\_no, stud\_name, mark1, mark2, mark3. Calculate total marks and average marks. Arrange the records in descending order of marks.
3. Write a menu driven program in C to create a structure for employee having fields empid, empname, salary. Accept the details of 'n' Employees from the user and perform the following operations using function. - Search by Emp-Id - Display All - Display Names of Employee having Salary > 10000

Write a program to **pass the address of the structure variable to user defined function** and display the contents.

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### **Return structure from function**

Create a structure with the following fields name, age, register no, gender, department, school, state, country. Perform the following operations using function returning Structure.

1. Write a program to get 10 unique student information, check for duplicate records.
2. Write a program to sort the student records with respect to the registration number.
3. Write a program to group the student information by the department and display them
4. Write a program to display the records of students who are above 20 years.
5. Write a program to display the number of students from each state of India