Assignment - 08

```c
// 1. Write a program in C to print all the alphabets using a pointer.

#include <stdio.h>

int main() {
    char *alphabet = "abcdefghijklmnopqrstuvwxyz";

    for(int i = 0; i < 26; i++) {
        printf("%c ", *(alphabet + i));
    }

    return 0;
}
```

Output :

a b c d e f g h I j k l m n o p q r s t u v w x y z

```c
// 2. Write a program in C to find the largest element using Dynamic Memory Allocation.

#include <stdio.h>
#include <stdlib.h>

int main() {
    int *arr, largest;
    int array[5]={1,2,15,3,4};

    // Dynamically allocate memory for the array
    arr = (int*) malloc(5 * sizeof(int));

    arr = array;
    largest = arr[0];
    for(int i = 1; i < 5; i++) {
        if(arr[i] > largest) {
            largest = arr[i];
        }
    }

    printf("The largest element in the array is %d\n", largest);

    // free(arr);
    return 0;
}
```

Output :

The largest element in the array is 15.

```c
// 3. Write a program in C to find the largest element in an array using Dynamic Memory Allocation.

#include <stdio.h>
#include <stdlib.h>

int main() {
    int *arr, largest;
    int array[5]={1,2,15,3,4};

    // Dynamically allocate memory for the array
    arr = (int*) malloc(5 * sizeof(int));

    arr = array;
    largest = arr[0];
    for(int i = 1; i < 5; i++) {
        if(arr[i] > largest) {
            largest = arr[i];
        }
    }

    printf("The largest element in the array is %d\n", largest);

    return 0;
}
```

Output :

The largest element in the array is 15.

```c
// 4. Write a program in C to count the total number of words in a string.

#include <stdio.h>
#include <stdlib.h>

int main(){
    int countWord = 0;
    char value[100]={};

    printf("Enter a sting : ");
    gets(value);

    int i = 0;
    while (value[i]!='\0')
    {
        if(value[i]==' '){
            countWord += 1;
        }

        i++;
    }

    printf("Number of words in string : %d", countWord+1);

    return 0;
}
```

OUTPUT :

```
Enter a sting : CV RAMAN GLOBAL UNIVERSITY
Number of words in string : 4
```

```c
// 5. WAP to take input two string and check whether they are anagrams or not.

#include <stdio.h>
#include <string.h>

int main(){

    char str1[100];
    char str2[100];
    int cnt = 0;

    printf("Enter string 1 : ");
    scanf("%s", &str1);

    printf("Enter string 2 : ");
    scanf("%s", &str2);

    int i = 0;
    int j = 0;
    if(strlen(str1)==strlen(str2)){
        while (str1[i]!='\0')
        {
            while (j<strlen(str2))
            {
                if(str1[i]==str2[j]){
                    cnt += 1;
                }
                j++;
            }
            j = 0;

            i += 1;
        }
    }

    if(cnt == strlen(str1)){
        printf("Entered strings are anagrams.");
    }
    else{
        printf("Entered strings are not anagrams.");
    }

    return 0;
}
```

OUTPUT :

```
Enter string 1 : WORTH
Enter string 2 : THROW
Entered strings are anagrams.
```