Assignment-6

1. C program to count the total number of words in a string.

CODE

C 01_Count_Words_02.c > main()

```c
/* Author: Jolok Banarjee, ID: 21014026, AE-02, Aerospace, BSMRAAU */
#include<stdio.h>
#include<string.h>
int main()
{
    char str[100];
    int i, count;
    count = 0;
    printf("Please Enter any String[100] :  ");
    gets(str);
    for(i = 0; str[i] != '\0'; i++)
    {
        if(str[i] == ' ' || str[i] == '\n' || str[i] == '\t')
        {
            count++;
        }
    }
    printf("The Total Number of Words in this String %s  = %d", str, count+1);
    return 0;
}
```

OUTPUT

```
Please Enter any String[100] :  Computer Programming and Application Sessional
The Total Number of Words in this String Computer Programming and Application Sessi
onal  = 5
PS E:\Code\CSE 4192\Assignment\06>
```

2. C program to sort a string in alphabetical order by swapping the characters in the string.

Enter the string : face

The sorted string is : acef

CODE

E: > Code > CSE 4192 > Assignment > 06 > C 02_Swapping_Characters_inString.c > main()

```c
#include<stdio.h>
#include<string.h>
int main(){
    char str[50], temp;
    int i,j;
    printf("Enter a string : ");
    scanf("%s",str);

    //Calculating length of string
    int len = strlen(str);
    //Swapping the characters string if previous is greater later
    for(i=0;i<(len-1);i++){
        for(j=(i+1);j<len;j++){
            if(str[i]>str[j]){
                temp = str[i];
                str[i] = str[j];
                str[j] = temp;
            }
        }
    }
    printf("The characters of string after sorting : %s",str);
    return 0;
}
```

OUTPUT

```
Enter a string : face
The characters of string after sorting : acef
PS C:\Users\HP>
```

3. C program to extract a substring from a given string.

Input the string: This is test string

Input the position to start extraction : 9

Input the length of substring : 4

The substring retrieve from the string is: " test "

CODE

C 03_extract_a_substring_from_given_string.c > main()

```c
#include <stdio.h>
#include <string.h>
int main()
{
   char string[1000], sub[1000];
   int position, length, c = 0;
   printf("Input the string : ");
   gets(string);
   printf("\nInput the position to start extraction : ");
   scanf("%d", &position);
   printf("\nInput the length of substring : ");
   scanf("%d", &length);

   while (c < length) {
      sub[c] = string[position+c-1];
      c++;
   }
   sub[c] = '\0';
   printf("The substring retrieve from the string is: \"%s\"\n", sub);
   return 0;
}
```

OUTPUT

```
Input the string : This is test string

Input the position to start extraction : 9

Input the length of substring : 4
The substring retrieve from the string is: "test"
PS E:\Code\CSE 4192\Assignment\06>
```

Lab Work-6

1. Write a program in c to check two string equal or not.

CODE

01_String_Equal_or_Not.c > main()

```c
#include <stdio.h>
#include <string.h>
int main()
{
    char s1[100], s2[100];
    int n;
    printf("Enter The First string :");
    gets(s1);
    printf("Enter The Second string :");
    gets(s2);
    n = strcmp(s1, s2);
    if (n == 0)
    {
        printf("Two Strings are equal.");
    }
    else
    {
        printf("Strings are not equal.");
    }
    return 0;
}
```

OUTPUT 1

```
Enter first string :Hello
Enter second string :Hello
Strings are  equal.
PS E:\Code\CSE 4192\Class\Class-6>
```

OUTPUT 2

```
Enter first string :Hello
Enter second string :World
Strings are not equal.
PS E:\Code\CSE 4192\Class\Class-6>
```

2. Write a program in c merge in two string.

CODE

02_merge_two_array.c > main()

```c
#include <stdio.h>
#include <string.h>
int main()
{
    char s1[100], s2[100];
    printf("Enter The First String :");
    gets(s1);
    printf("Enter The Second String :");
    gets(s2);
    strcat(s1, s2);
    printf("String After Merged : %s", s1);
    return 0;
}
```

OUTPUT

```
Enter The First String :Hi! My name is
Enter The Second String : Jolok Banarjee.
String After Merged : Hi! My name is Jolok Banarjee.
PS E:\Code\CSE 4192\Class\Class-6>
```

3. Write a program in c to check vowel and consonent of a string.

CODE

03_Vowel_Consonent.c > main()

```c
#include <stdio.h>

int main()
{
    char ch;

    /* Input character from user */
    printf("Enter any character: ");
    scanf("%c", &ch);


    /* Condition for vowel */
    if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
       ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U')
    {
        printf("'%c' is Vowel.", ch);
    }
    else if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
    {
        /* Condition for consonant */
        printf("'%c' is Consonant.", ch);
    }
    else
    {
        printf("'%c' is not an alphabet.", ch);
    }

    return 0;
}
```

OUTPUT

```
Enter a String: Hello World

String(without vowels): Hll Wrld
PS E:\Code\CSE 4192\Class\Class-6>
```

4.Write a c program to finds its frequency of a string.

CODE

04_Find_Frequency_of_String.c > main()

```c
#include <stdio.h>
int main()
{
    char str[100], ch;
    int i, n, count = 0;
    printf("Enter a string :");
    gets(str);
    printf("Enter a character to search :");
    scanf("%c", &ch);
    n = strlen(str);
    for (i = 0; i < n; i++)
    {
        if (ch == str[i])
        {

            count++;
        }
    }
    printf("No. of %c present is %d", ch, count);
    return 0;
}
```

OUTPUT

```
Enter a string :Hello World!
Enter a character to search :o
No. of o present is 2
PS E:\Code\CSE 4192\Class\Class-6>
```