

Practicle-4

Program to perform functions on string

Code:-

```
//Program to perform diffrent functions on string
#include <iostream>
using namespace std;

int len(string s)
{
    //defining function to find the length of the string
    int lent=0;
    while(true)
    {
        if(s[lent]>char(31) && s[lent]<char(123))
        {
            lent+=1;
        }
        else
        {
            break;
        }
    }
    return lent;
}

void adress(string s)
{
    //defining function to find the address of string
    cout << "Adress of the characters::" << endl;
    for(int i=0 ; i<len(s) ; i++)
    {
        cout << s[i] << " -> " << (void*)&s[i] << endl;
    }
}

string con(string s)
{
    //defining function to concatenate two strings
    string second , f;
    cout << "Enter the second string to Concatenate::";
    cin >> second;
    f=s+second;
    return f;
}
```

```

void com(string s)
{
    //defining function to compare two strings
    string second;
    bool equal=true;
    cout << "Enter the second string to compare::";
    cin >> second;
    for(int i=0 ; i<len(s) && i<len(second) ; i++)
    {
        if(s[i]!=second[i])
        {
            equal=false;
        }

    }
    if(equal==true)
    {
        cout << "The strings are equal!!";
    }
    else
    {
        cout << "The strings are not equal!!";
    }

}

```

```

string rev(string s)
{
    //defining function to find the reverse of the string
    char f[100];
    int l=len(s);
    for(int i=0 ; i<l ; i++)
    {
        f[i]=s[l-1-i];
    }
    return f;
}

```

```

string upper(string s)
{
    //defining function to convert the lower case to upper
    int v;
    for(int i=0 ; i<len(s) ; i++)
    {
        if(s[i]>=char(97) && s[i]<=char(122))
        {
            v=int(s[i]);
            s[i]=char(v-32);
        }
        else
        {
            continue;
        }
    }
    return s
}

```

```
}
```

```
int main()
```

```
{
```

```
    string x;    //defining variables
```

```
    int y;
```

```
    cout << "Enter the string::";
```

```
    getline(cin , x);                //showing the menu to user
```

```
    cout << "*****" << endl;
```

```
    cout << "1.Adress of character" << endl << "2.Concatenate" << endl << "3.Compare two strings" << endl;
```

```
    cout << "4.Length of string" << endl << "5.Lower case to Upper case" << endl << "6.Reverse" << endl;
```

```
    cout << "*****" << endl;
```

```
    cout << "Enter your choice (1,2,3,4,5 or 6) ::";
```

```
    cin >> y;
```

```
    switch(y)
```

```
    {                                //creating switch case and printing the final result
```

```
        case 1:
```

```
            adress(x);
```

```
            break;
```

```
        case 2:
```

```
            cout << "The string after concatenate::" << con(x);
```

```
            break;
```

```
        case 3:
```

```
            com(x);
```

```
            break;
```

```
        case 4:
```

```
            cout << "The lenght of the string is::" << len(x);
```

```
            break;
```

```
        case 5:
```

```
            cout << "The string in upper case::" << upper(x);
```

```
            break;
```

```
        case 6:
```

```
            cout << "The string after reverse::" << rev(x);
```

```
            break;
```

```
        default:
```

```
            cout << "Wrong Input !!";
```

```
            break;
```

```
    }
```

```
    return 0;
```

```
}
```

Output:-

Function-1

```
Command Prompt
Microsoft Windows [Version 10.0.19042.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\harsh>cd desktop

C:\Users\harsh\Desktop>cd Practicales

C:\Users\harsh\Desktop\Practicales>g++ Practical-4.cpp -o Practical-4.exe

C:\Users\harsh\Desktop\Practicales>Practical-4.exe
Enter the string::Harsh is great
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::1
Address of the characters::
H -> 0x72fd00
a -> 0x72fd01
r -> 0x72fd02
s -> 0x72fd03
h -> 0x72fd04
  -> 0x72fd05
i -> 0x72fd06
s -> 0x72fd07
  -> 0x72fd08
g -> 0x72fd09
r -> 0x72fd0a
e -> 0x72fd0b
a -> 0x72fd0c
t -> 0x72fd0d
```

Function-2

```
C:\Users\harsh\Desktop\Practicales>Practical-4.exe
Enter the string::Harsh is
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::2
Enter the second string to Concatenate::great
The string after concatenate::Harsh is great
C:\Users\harsh\Desktop\Practicales>Practical-4.exe
```

Function-3

```
C:\Users\harsh\Desktop\Practicales>Practical-4.exe
Enter the string::Harsh is great
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::3
Enter the second string to compare::Harsh is great
The strings are equal!!
```

Function-4

```
C:\Users\harsh\Desktop\Practicales>Practical-4.exe
Enter the string::Harsh is great
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::4
The lenght of the string is::14
```

Function-5

```
C:\Users\harsh\Desktop\Practicals>Practical-4.exe
Enter the string::Harsh is great
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::5
The string in upper case::HARSH IS GREAT
C:\Users\harsh\Desktop\Practicals>_
```

Function-6

```
C:\Users\harsh\Desktop\Practicals>Practical-4.exe
Enter the string::Harsh is great
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::6
The string after reverse::taerg si hsraH
C:\Users\harsh\Desktop\Practicals>_
```

Checking Exception

```
C:\Users\harsh\Desktop\Practicales>Practical-4.exe
Enter the string::Harsh
*****
1.Address of character
2.Concatenate
3.Compare two strings
4.Length of string
5.Lower case to Upper case
6.Reverse
*****
Enter your choice (1,2,3,4,5 or 6) ::72
Wrong Input !!
C:\Users\harsh\Desktop\Practicales>_
```