

# Name: Antarin Ghosal

## Ha 7.1

```
/*
Name : Antarin ghosal
program : HA7.1 WAP to capitalize first character of each word of a string entered through
keyboard.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    char str[30];int len=0,i;
    printf("Enter the string: ");
    scanf("%[^\n]s",str);
    len=strlen(str);
    char str2[len];
    str2[0]=toupper(str[0]);
    for(i=1;i<len;i++)
        if(str[i-1]==' ')
            str2[i]=toupper(str[i]);
        else
            str2[i]=str[i];

    printf("%s",str2);
    return 0;
}
```

```
HA_7.1.c:11:13: warning: implicit declaration of function 'scanf' is invalid in C90 [-Wimplicit-function-declaration]
Enter the string: Hello world
Hello World▼
```

```
Enter the string: Antarin
Antarin
```

## Ha 7.2

```
/*
Name : Antarin ghosal
HA7.2 WAP to take a sentence as input and reverse every word of the sentence.
*/

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

```

#include<ctype.h>
int main()
{
    int i,j=0;
    char str[100];
    //input
    printf("Enter the sstring: ");
    scanf("%[^\\n]s",str);
    sprintf(str,"%s ",str);
    int k=0,len=strlen(str);
    while(str[i]!='\\0')
    {
        if(str[i]==32)
        {
            for(j=i-1;j>=k;j--)
                printf("%c",str[j]);
            printf(" ");
            k=i+1;
        }
        i++;
    }

    return 0;
}

```

Enter the sstring: Antarin ghosal  
niratnA lasohg

Enter the sstring: Hello world  
olleH dlrow

## Ha 7.3

```

/*
Name : Antarin ghosal
HA7.3 WAP to print a given string in an alphabetical order
*/

#include<stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    int i,j;
    char str[10];
    //input
    printf("Enter the sstring: ");
    scanf("%[^\\n]s",str);
    int len=strlen(str);

```

```
//cal and out
for(i=65;i<=90;i++)
for(j=0;j<len;j++)
    if(toupper(str[j])==(char)i)
        printf("%c", (char)i);

return 0;
}
```

```
Enter the sstring: hello world
EHLLOORW
```

```
Enter the sstring: Antarin ghosal
AAGHINNRT
```

## La 7.1

```
/*
Name : Antarin ghosal
LA7.1 WAP to extract the Last character of each word of a given string.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    char str[100],str2[100];int len=0,i;
    printf("Enter the sstring: ");
    scanf("%[^\n]s",str);
    sprintf(str,"%s ",str);
    len=strlen(str);

    for(i=0;i<len;i++)
        if(str[i]==' ')
            printf("%c ",str[i-1]);

    return 0;
}
```

```
Enter the sstring: Antarin Ghosal
n l
```

```
Enter the sstring: Hello world
o d
```

## La 7.2

```
/*
Name : Antarin ghosal
LA7.2 Write a program to concatenate two strings without using any library function.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    char str[100];
    char str2[100];
    char buffer[200];
    printf("Enter 1st string: ");
    gets(str);
    printf("Enter 2nd string: ");
    gets(str2);
    sprintf(buffer,"%s %s",str,str2);
    printf("CONCATENATED STRING: %s",buffer);
    return 0;
}
```

```
Enter 1st string: Antarin
Enter 2nd string: Ghosal
CONCATENATED STRING: Antarin Ghosal
```

```
Enter 1st string: Hello
Enter 2nd string: world
CONCATENATED STRING: Hello world
```

## La 7.3

```
/*
Name : Antarin ghosal
LA7.3 WAP to check whether a string entered through keyboard is palindrome or not.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    char str[100],str2[100];int len=0,i;
    printf("Enter the sstring: ");
    scanf("%[^\n]s",str);

    len=strlen(str);
```

```

int r=len-1;

for(i=0;i<len;i++)
    str2[i]=str[r--];

short int flag=0;
for(i=0;i<len;i++)
    if(str[i]!=str2[i])
        flag=1;

if(flag==1)
    printf("%s is not palindrome",str);
else
    printf("%s is palindrome",str);
return 0;
}

```

```

Enter the sstring: Antarin ghosal
Antarin ghosal is not palindrome

```

```

Enter the sstring: madam
madam is palindrome

```

## La 7.4

```

/*
Name : Antarin ghosal
LA7.4 Write a program to count the number of characters, alphabets, tabs, newlines, words,
vowels, consonants present in a in a string.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{

    char str[150];
    int vowels=0, consonant=0, digit=0, space=0,i;

    vowels = consonant = digit = space = 0;

    printf("Enter a str of string: ");
    fgets(str, sizeof(str), stdin);

    for (i=0;str[i]!='\0';i++)
    {
        str[i]=tolower(str[i]);
    }
}

```

```

    if(str[i]=='a' || str[i]=='e' || str[i]=='i' || str[i]=='o' || str[i]=='u')
        vowels++;
    else if((str[i]>='a' && str[i]<='z'))
        consonant++;
    else if(str[i]>='0' && str[i]<='9')
        digit++;
    else if(str[i]==' ')
        space++;
}
printf("Vowels: %d", vowels);
printf("\nConsonants: %d", consonant);
printf("\nDigits: %d", digit);
printf("\nWhite spaces: %d", space);

return 0;
}

```

```

Enter a str of string: Antarin
Vowels: 3
Consonants: 4
Digits: 0
White spaces: 0

```

```

Enter a str of string: Hello world
Vowels: 3
Consonants: 7
Digits: 0
White spaces: 1

```

## Sa 7.1

```

/*
Name : Antarin ghosal
SA7.1 WAP to find the length of a string with/without using library function for getting
length of the string.
*/

#include <stdio.h>
#include <string.h>
#include <ctype.h>
int main()
{
    char str[100];
    int len=0,i,sp=0;
    scanf("%[^\\n]s",str);
    for(i=0;i<100;i++)
        if(str[i]!='\\0')
        {
            if(str[i]!=' ')
                len+=1;
            if(str[i]==' ')

```

```

        sp+=1;
    }
    else
        break;
printf("String: %s\n",str);
printf("Lenght without white space: %d\n",len);
printf("Lenght with white space: %d",(len+sp));
return 0;
}

```

```

Antarin Ghosal
String: Antarin Ghosal
Lenght without white space: 13
Lenght with white space: 14

```

```

Hello world
String: Hello world
Lenght without white space: 10
Lenght with white space: 11

```

## Sa 7.2

```

/*
Name : Antarin ghosal
SA7.2 WAP to copy one string into other with/without using a library function for copy
operation.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    char str[100];
    char str2[100];
    printf("Enter THE string: ");
    scanf("%[^\n]s",str);
    int i;
    // sprintf(str2,"%s",str);
    // strcpy(str2,str)
    for(i=0;i<strlen(str);i++)
        str2[i]=str[i];
    str2[strlen(str)]='\0';

    printf("COPIED STRING:    %s",str2);

    return 0;
}

```

```
Enter THE string: Hello world
COPIED STRING:   Hello world
```

```
Enter THE string: Antarin ghosal
COPIED STRING:   Antarin ghosal
```

## Sa 7.3

```
/*
Name : Antarin ghosal
SA7.3 WAP to compare two strings without using library function for comparison operation.
*/

#include <stdio.h>
#include <string.h>
#include <ctype.h>
int main()
{
    int i=0;
    char str1[100];
    char str2[100];
    printf("Enter 1st string: ");
    gets(str1);
    printf("Enter 2nd string: ");
    gets(str2);

    while(str1[i]!='\0' && str2[i]!='\0')
    {
        if(str1[i]==str2[i])
        {
            i++;
            continue;
        }
        else
            break;
    }
    printf("%d",str1[i]-str2[i]);
    return 0;
}
```

```
Enter 1st string: Antarin
Enter 2nd string: Ghosal
-6
```

```
Enter 1st string: Hello
Enter 2nd string: world
-47
```



## Sa 7.4

```
/*
Name : Antarin ghosal
SA7.4 WAP to find the reverse of a string with/without using library function.
*/

#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
    char str[100];int len=0,i;
    printf("Enter the sstring: ");
    scanf("%[^\n]s",str);

    len=strlen(str);
    int r=len-1;
    char str2[len];
    for(i=0;i<len,r>=0;i++)
        str2[i]=str[r--];

    printf("STRING: %s",str);
    printf("\nREVERSE: %s",str2);
    return 0;
}
```

```
Enter the sstring: Antarin Ghosal
STRING: Antarin Ghosal
REVERSE: lasohG niratnA
```

```
Enter the sstring: Hello world
STRING: Hello world
REVERSE: dlrow olle»
```