

STRING ASSIGNMENT

Faculty -Vinay Agrawal sir

## Deepak kushwah

Sec – 3

Q1. [Write a C program to find length of a string](https://codeforwin.org/2015/04/c-program-to-calculate-length-of-string.html) with and without function.

With function #include<stdio.h> int main()

{ char str[20]; printf("Enter the String\n"); scanf("%[^\n]s", str); int l = strlen(str); printf("Length = %d", l);

}

Without function #include<stdio.h> int main()

{ char str[20],i; printf("Enter the String\n"); scanf("%[^\n]s", str); for(i=0;str[i]!=0;i++)

{

}

printf("%d", i);

}

Q2. [- Write a C program to copy one string to another string](https://codeforwin.org/2015/11/c-program-to-copy-one-string-to-another.html) with and without function. With function

int main()

{

char str1[100],str2[100]; printf("Enter the string\n"); gets(str1); strcpy(str2,str1);

puts(str2);

}

Without function

#include<stdio.h>

int main()

{

int i;

char a[100], b[100]; printf("Enter your string\n"); scanf("%[^\n]", a); for(i=0;a[i]!='\0';i++)

b[i]=a[i];

b[i]='\0';

printf("Another string\n%s", b);

return 0;

}

Q 3. [Write a C program to concatenate two strings](https://codeforwin.org/2015/11/c-program-to-concatenate-two-strings.html) with and without function.

With function

//Q:3

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

int main()

{

char a[100], b[100];

printf("Enter 1st string\n");

gets(a);

printf("Enter 2nd string\n");

gets(b);

strcat(a,b);

printf("Strings after concatenation\n");

puts(a); puts(b); return 0;

}

//Q:3

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

int main()

{

int i, j; char a[100], b[100];

printf("Enter 1st string\n");

gets(a);

printf("Enter 2nd string\n");

gets(b);

for(i=0;a[i]!='\0';i++); a[i]=' ';

i++;

for(j=0;b[j]!='\0';j++,i++)

a[i]=b[j]; a[i]='\0';

printf("Strings after concatenation\n"); puts(a); puts(b);

return 0;

}

Q 4.- [Write a C program to compare two strings](https://codeforwin.org/2015/11/c-program-to-compare-two-strings.html) with and without function.

With function

//Q:4

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

{

char a[100], b[100];

printf("Enter 1st string\n");

gets(a);

printf("your 2nd string\n");

gets(b);

if(strcmp(a,b)==0)

printf("Identical"); else if(strcmp(a,b)==1)

printf("string 1st have more ASCII value of mismatching character of string 2nd");

else

printf("string 2nd have more ASCII value of mismatching character of string 1st"); return 0;

}

Without function

//Q:4

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

{

int i, j, c=0; char a[100], b[100]; printf("Enter 1st string\n");

gets(a);

printf("your 2nd string\n");

gets(b);

for(i=0;a[i]!='\0';i++); for(j=0;j!=i;j++)

{

if(a[j]==b[j])

c=c+1;

else if(a[j]>b[j])

{

printf("string 1st have more ASCII value of mismatching character of string 2nd");

break;

}

else

{

printf("string 2nd have more ASCII value of mismatching character of string 1st");

break;

}

}

if(c==i) printf("Identical"); return 0;

}

Q 5.- [Write a C program to convert lowercase string to uppercase.](https://codeforwin.org/2015/04/c-program-convert-lower-case-string-to-upper.html)

//Q:5

#include<stdio.h>

int main()

{

int i;

char a[100];

printf("Enter your string\n"); scanf("%[^\n]", a);

for(i=0;a[i]!='\0';i++)

{

if(a[i]>=97 && a[i]<=122)

a[i]=a[i]-32;

}

printf("String after conversion\n");

printf("%s", a);

return 0;

}

Q 6.- [Write a C program to convert uppercase string to lowercase.](https://codeforwin.org/2015/04/c-program-convert-upper-case-string-to-lower.html)

//Q:6

#include<stdio.h>

int main()

{

int i;

char a[100];

printf("Enter your string\n"); scanf("%[^\n]", a); for(i=0;a[i]!='\0';i++)

{

if(a[i]>=65 && a[i]<=90)

a[i]=a[i]+32;

}

printf("String after conversion\n");

printf("%s", a);

return 0;

}

Q 7[-Write a C program to toggle case of each character of a string.](https://codeforwin.org/2016/04/c-program-to-toggle-case-of-each-character-in-string.html)

//Q:7

#include<stdio.h>

int main()

{

int i;

char a[100];

printf("Enter your string\n"); scanf("%[^\n]", a);

for(i=0;a[i]!='\0';i++)

{

if(a[i]>=97 && a[i]<=122)

a[i]=a[i]-32;

else if(a[i]>=65 && a[i]<=90)

a[i]=a[i]+32;

}

printf("String after toggle\n"); printf("%s", a);

return 0;

}

Q 8[-Write a C program to find total number of alphabets, digits or special character in a string.](https://codeforwin.org/2015/11/c-program-to-find-total-number-of-alphabets-digits-special-characters-in-string.html)

//Q:8

#include<stdio.h>

int main()

{

int i, c1=0, c2=0, c3=0; char a[100];

printf("Enter your string\n"); scanf("%[^\n]", a);

for(i=0;a[i]!='\0';i++)

{

if(a[i]>='a' && a[i]<='z' || a[i]>='A' && a[i]<='Z') c1=c1+1;

else if(a[i]>='0' && a[i]<='9')

c2=c2+1; else c3=c3+1;

}

printf("Total no. of alphabets = %d\n", c1); printf("Total no. of digits = %d\n", c2);

printf("Total no. of special character = %d", c3);

return 0;

}

Q 9-

//Q:9

#include<stdio.h> int main()

{

int i, j=0, k=0, l=0, m=0;

char a[100], p[100], q[100], r[100], s[100];

printf("Enter your string\n"); scanf("%[^\n]", a);

for(i=0;a[i]!='\0';i++)

{

if(a[i]=='a' || a[i]=='e' || a[i]=='i' || a[i]=='o' || a[i]=='u' || a[i]=='A' || a[i]=='E' || a[i]=='I' || a[i]=='O' || a[i]=='U')

{

p[j]=a[i];

j++;

}

else if(a[i]>='a' && a[i]<='z' || a[i]>='A' && a[i]<='Z')

{

q[k]=a[i];

k++;

}

else if(a[i]>='0' && a[i]<='9')

{

r[l]=a[i];

l++;

}

else

{

s[m]=a[i];

m++; }

}

p[j]='\0'; q[k]='\0'; r[l]='\0';

s[m]='\0';

printf("string of vowels\n%s\n", p); printf("string of consonants\n%s\n", q); printf("string of digits\n%s\n", r); printf("string of special character\n%s", s); return 0;

}

Q 10-

//Q:10

#include<stdio.h> int main()

{

int i, c1=0, c2=0; char a[100];

printf("Enter your string\n"); scanf("%[^\n]", a); for(i=0;a[i]!='\0';i++)

{

if(a[i]=='a' || a[i]=='e' || a[i]=='i' || a[i]=='o' || a[i]=='u' || a[i]=='A' || a[i]=='E' || a[i]=='I' || a[i]=='O' || a[i]=='U')

c1=c1+1;

else if(a[i]>='a' && a[i]<='z' || a[i]>='A' && a[i]<='Z')

c2=c2+1;

}

printf("Total no. of vowels = %d\n", c1); printf("Total no. of consonants = %d", c2);

return 0;

}

Q11-

#include<stdio.h> int main()

{

int i, c=0;

char a[100];

printf("Enter your string\n"); scanf("%[^\n]", a); for(i=0;a[i]!='\0';i++)

if(a[i]==' ')

c=c+1; if(a[0]==' ' && a[i-1]==' ')

printf("Total no. of words = %d", c-1);

else if(a[0]==' ' || a[i-1]==' ')

printf("Total no. of words = %d", c);

else

printf("Total no. of words = %d", c+1);

return 0;

}

Q12-

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

int main()

{

char a[100];

printf("Enter your string\n"); gets(a);

strrev(a);

printf("String after reverse\n"); puts(a);

return 0;

}

Q13-

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

int main()

{

int i, x;

char a[100], b[100];

printf("Enter your string\n");

gets(a);

for(i=0;a[i]!='\0';i++)

b[i]=a[i];

b[i]='\0'; strrev(a); x=strcmp(a,b); if(x==0)

printf("String is palindrome");

else

printf("String is not palindrome");

return 0;

}

Q 15- #include<stdio.h> #include<string.h> int main()

{

int i;

char a[100], x; printf("Enter your string\n");

gets(a);

printf("Enter the character whose first occurance to be found: ");

scanf("%c", &x);

for(i=0;a[i]!='\0';i++)

if(a[i]==x)

break;

printf("First occurence of character %c of position is %d", x, i+1);

return 0;

}

Q 16- #include<stdio.h> #include<string.h> int main()

{

int i, j;

char a[100], x;

printf("Enter your string\n"); gets(a); printf("Enter the character whose last occurance to be found: ");

scanf("%c", &x);

for(i=0;a[i]!='\0';i++)

if(a[i]==x)

j=i;

printf("Last occurence of character %c of position is %d", x, j+1);

return 0;

}

Q 17- #include<stdio.h> #include<string.h> int main()

{

int i;

char a[100], x; printf("Enter your string\n");

gets(a);

printf("Enter the character whose all occurance to be found: ");

scanf("%c", &x);

printf("All occurrence of a character %c of positions is ", x); for(i=0;a[i]!='\0';i++)

if(a[i]==x) printf("%d ", i+1); return 0;

}

Q 18- #include<stdio.h> #include<string.h> int main()

{

int i, c=0; char a[100], x; printf("Enter your string\n"); gets(a); printf("Enter the character whose occurrences to be count: ");

scanf("%c", &x);

for(i=0;a[i]!='\0';i++)

{

if(a[i]==x)

c=c+1;

}

printf("Number of occurrence of character %c is %d", x, c);

return 0;

}

Q19-

#include<stdio.h> int main()

{

int i, max, c[128]={ }; char a[1000];

printf("Enter your string\n"); scanf("%[^\n]", a); for(i=0;a[i]!='\0';i++)

c[a[i]]++;

max = c[0];

printf("Highest frequency character is/are "); for(i=0;i<=127;i++) if(c[i]>max) max=c[i]; for(i=0;i<=127;i++) if(c[i]==max)

printf("%c ", i);

return 0;

}

Q20

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

{

int i, min, x, c[128]={ };

char a[1000];

printf("Enter your string\n"); scanf("%[^\n]", a); for(i=0;a[i]!='\0';i++)

c[a[i]]++;

x = c[0]; for(i=0;i<=127;i++) if(c[i]>x) x=c[i];

min=x;

for(i=0;i<=127;i++) if(c[i]<min && c[i]>0)

min=c[i];

printf("Lowest frequency character is/are "); for(i=0;i<=127;i++) if(c[i]==min) printf("%c ", i);

return 0;

}

Q41

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

{

int i, j, la, lb; char a[100], b[100], ra, rb; printf("Enter 1st string\n");

gets(a);

printf("your 2nd string\n");

gets(b); la=strlen(a); lb=strlen(b); if(la==lb)

{

for(i=1;i<=la-1;i++) for(j=0;j<=la-1-i;j++)

if(a[j]>a[j+1])

{

ra=a[j]; a[j]=a[j+1]; a[j+1]=ra;

}

for(i=1;i<=lb-1;i++) for(j=0;j<=lb-1-i;j++)

if(b[j]>b[j+1])

{

rb=b[j]; b[j]=b[j+1]; b[j+1]=rb;

}

if(strcmp(a,b)==0) printf("String is anagram");

else

printf("String is not anagram");

}

else

printf("String are not anagram"); return 0;

}

Q42

#include<stdio.h> int main()

{

int i, j; char a[100];

printf("Enter your word\n"); scanf("%s", a); printf("Your word is\n"); printf("%s\n\n", a); for(i=0;a[i]!='\0';i++)

{

for(j=0;j<=i;j++) printf("%c", a[j]); printf("\n");

}

return 0;

}

Q43

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

{

char a[100];

int i, l, k, j; printf("Enter your string\n"); scanf("%[^\n]", a); l=strlen(a); for(i=0;i<=l-1;i++)

if(a[i]==' ')

{

k=i; break;

} for(i=0;i<=l-1;i++)

if(a[i]==' ')

j=i;

printf("Middle name is\n"); for(i=k+1;i<=j-1;i++) printf("%c", a[i]); return 0;

}

Q44

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

{

int choice, l, i; char ch, a[100], b[100];

printf("Menu\n1. Length of string\n2. Copy of one string into another\n3. Capitalize all letters of string\n4. Reverse of string\n5. Comparison of two strings\n"); printf("Enter your choice from Menu\n"); scanf("%d", &choice);

switch(choice)

{

case 1: printf("Enter your string\n");

scanf("%\*c%[^\n]", a);

l=strlen(a);

printf("Length of string is %d", l);

break;

case 2: printf("Enter one string\n");

scanf("%\*c%[^\n]", a); printf("Your another string\n");

strcpy(b,a); puts(b); break;

case 3: printf("Enter your string\n");

scanf("%\*c%[^\n]", a); for(i=0;a[i]!='\0';i++)

{

if(a[i]>=97 && a[i]<=122)

a[i]=a[i]-32;

}

printf("String after capitalize all letters\n");

puts(a); break;

case 4: printf("Enter your string\n");

scanf("%\*c%[^\n]", a);

strrev(a);

printf("Reverse of string\n");

puts(a); break;

case 5: printf("Enter 1st string\n");

scanf("%\*c%[^\n]", a); printf("Enter 2nd string\n");

|  |  |  |
| --- | --- | --- |
|  |  | scanf("%\*c%[^\n]", b); |
|  |  | if(strcmp(a,b)==0) |
|  |  | printf("Identical"); |
|  |  | else if(strcmp(a,b)==1) |
| 2nd"); |  | printf("string 1st have more ASCII value of mismatching character of string |
|  |  | else |
| 1st"); |  | printf("string 2nd have more ASCII value of mismatching character of string |
|  |  | break; |

default: printf("Invalid choice");

}

printf("\nThanks for visiting now you can exit");

return 0;

}

