**SSN COLLEGE OF ENGINEERING (Autonomous)**

**Affiliated to Anna University**

**DEPARTMENT OF CSE**

**UCS 1211 PROGRAMMING IN C LABORATORY**

**A4 : STRING OPERATIONS IN C**

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**CLASS: CSE-B (SEMESTER-2)**

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**1.)Program name: Write the required functions such as**

**a.strcat**

**b.strncpy**

**e.strcmpi**

#include<stdio.h>

int len(char \*str1)

{int n1=0;

for(int i=0; str1[i]!='\0'; i++)

n1+=1;

return n1;

}

void con(char str1[20],char str2[20])

{ int n1=0,n2=0,i;

for( i=0; str1[i]!='\0'; i++)

n1+=1;

for(int j=0; str2[j]!='\0'; j++)

n2+=1;

str1[i]=' ';

for(int i=0,j=n1+1; i<n2; i++,j++)

str1[j]=str2[i];

printf("The concatenated string is %s",str1);

}

void cop(char \*str1,char \*str2,int n)

{ for(int i=0; i<n; i++)

str1[i]=str2[i];

printf("\nThe copied string is %s",str1);

}

void com(char \*str1,char \*str2)

{ int flag;

int n1=len(str1);

int n2=len(str2);

for(int i=0,j=0; i<n1,j<n2; i++,j++)

if(str1[i]>str2[j])

{ flag=1;

break;}

else if(str1[i]==str2[j])

{ flag=0;

continue;

}

else

{ flag=-1;

break;

}

printf("\n The result of the comparison of the two strings is %d",flag);}

void main()

{ char str1[20],str2[20],str3[20],str4[20],str5[20],str6[20];

printf("Enter the strings ");

scanf("%[^\n]",str1);

scanf(" %[^\n]",str2);

con(str1,str2);

int n;

printf("\nEnter the strings ");

scanf(" %[^\n] ",str3);

scanf(" %[^\n]",str4);

printf("\nEnter the no of characters to copy");

scanf("%d",&n);

cop(str3,str4,n);

int flag;

printf("\nEnter the strings ");

scanf(" %[^\n]",str5);

scanf(" %[^\n]",str6);

com(str5,str6);

}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ gcc a4\_1.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ ./a.out

Enter the strings hi what is

up

The concatenated string is hi what is up

Enter the strings hi what is up

up

Enter the no of characters to copy up

The copied string is up what is up

Enter the strings Ktjsh

Kshitij

The result of the comparison of the two strings is -4

**2.)Program name: last occurrence of a substring in a given string.**

#include<stdio.h>

#include<string.h>

void main()

{ char a[20], b[20];

int pos,status;

printf("Enter the strings ");

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

scanf(" %[^\n]",b);

int p=strlen(a);

for(int i=0; i<strlen(a); i++)

{

for(int j=i,k=0; j<strlen(b)+i; j++,k++)

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

{ status=1;

}

else

{ status=0;

break;

}

}

if(status==1)

pos=i;

}

printf("\nThe length of the string is %d",p);

printf("\n The last occurence is %d",pos+1);}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ gcc a4\_2.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ ./a.out

Enter the strings how are you

you

The length of the string is 11

The last occurence is 9

**3.) Program name: replaces a substring with another in a given line of text.**

#include<stdio.h>

#include<string.h>

void main()

{ char a[20], b[20],c[20],d[40];

int q=0;

int pos,status,l,m,n;

printf("Enter the strings ");

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

printf("Enter the string to be replaced ");

scanf(" %[^\n]",b);

printf("Enter the string to replace ");

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

l=strlen(a);

m=strlen(b);

n=strlen(c);

for(int i=0; i<strlen(a); i++)

{

for(int j=i,k=0; j<strlen(b)+i; j++,k++)

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

{ status=1;

}

else

{ status=0;

break;

}

}

if(status==1)

{

for(int k=q,p=0; p<n; k++,p++)

d[k]=c[p];

q=q+n;

i=i+m-1;

}

else

d[q++]=a[i];

}

printf("\nThe final sting is %s",d);}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ gcc a4\_3.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ ./a.out

Enter the strings is charu the charu of charus

Enter the string to be replaced charu

Enter the string to replace kshitij

The final sting is is kshitij the kshitij of kshitijs

**4.) Program name: reverse a string without using the library function**

#include<stdio.h>

void main()

{ char a[20],temp;

printf("Enter the string ");

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

int n1=0;

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

n1+=1;

for(int i=0,j=n1-1; i<=j; i++,j--)

{ temp=a[i];

a[i]=a[j];

a[j]=temp;

}

printf("\nThe reversed string is %s",a);

}

**Output:**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ gcc a4\_4.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment4$ ./a.out

Enter the string hundred

The reversed string is derdnuh