**Assignment A12**

/\*Write C++ program for string operations- copy, concatenate, check substring, equal, reverse and length. \*/

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**#include**<iostream>

**#include**<string>

**using** **namespace** std;

**class** str

{

string a,b,c,r,s1,s2,s3,s4,ss;

**int** i,ct,n,j,len,k;

**public**:

**void** **length**()

{ cout<<"\n\n...Length of string...\n\n";

ct=0;

cout<<"Enter string=\n";

cin>>a;

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

ct++;

cout<<"Length of string=\t"<<ct;

}

**void** **concat**()

{

r="";

cout<<"\n\n...ConCatination Operation...\n\n";

cout<<"\nEnter string 1=\t";

cin>>b;

cout<<"\nEnter string 2=\t";

cin>>c;

cout<<"\nYour entered strings are=\n"<<b<<"\n"<<c;

n=0;

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

{

r[n]=b[i];

n++;

}

**for**(j=0;c[j]!='\0';++j)

{

r[n]=c[j];

n++;

}

cout<<"\nResultant string=\t\t";//<<r;

**for**(i=0;i<n;i++)

cout<<r[i];

}

**void** **copy**()

{

cout<<"\n\n\*\*\*---Copy operation---\*\*\*\n\n";

cout<<"\nEnter string=\t";

cin>>s1;

ct=0;

**for**(i=0;s1[i]!='\0';i++)

ct++;

**for**(i=0;i<ct;i++)

s4[i]=s1[i];

cout<<"\nCopied string=\t";

**for**(i=0;i<ct;i++)

cout<<s4[i];

}

**void** **rev**()

{

cout<<"\*\*\*---Reverse Operation---\*\*\*";

cout<<"\n\nEnter string=";

cin>>s3;

ct=0,k=0;

**for**(i=0;s3[i]!='\0';i++)

ct++;

**for**(i=ct-1;i>=0;i--,k++)

ss[k]=s3[i];

cout<<"\nReversed=";

**for**(i=0;i<k;i++)

cout<<ss[i];

}

**void** **eq**()

{

cout<<"\*\*\*---Comparing Operation---\*\*\*";

cout<<"\nEnter string 1=";

cin>>s1;

cout<<"\nEnter string 2=";

cin>>s2;

**if**(s1==s2)

cout<<"\nString are same..!!";

**else**

cout<<"\nString are not same..!!";

}

**void** **sub**()

{

cout<<"\n\*\*\*---Substring Operation---\*\*\*";

cout<<"\n\nEnter string=";

cin>>a;

**int** m=0;

cout<<"\nEnter a string=";

cin>>b;

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

{

**if**(a[i]==b[0])

{

**for**(j=1;b[j]!='\0';j++)

{

**if**(a[i+j]!=b[j])

{

**break**;

}

}

**if**(b[j]=='\0')

{

i=i+j-1;

m++;

}

}

}

**if**(m==0)

cout<<"\nSubstring not present\n";

**else**

cout<<b<<" is repeated "<<m<<" times";

}

};

**int** **main**()

{

str s;

**char** ans;

**int** ch;

**do**

{ cout<<"1)Length\n2)ConCatination\n3)Reverse\n4)Equality\n5)Substring\n6)Copy\n\nEnter your choice (1-6)=\t";

cin>>ch;

**switch**(ch)

{

**case** 1 :s.length(); **break**;

**case** 2 :s.concat();**break**;

**case** 3 :s.rev(); **break**;

**case** 4 :s.eq(); **break**;

**case** 5 :s.sub(); **break**;

**case** 6 :s.copy();**break**;

**default**:cout<<"\n wrong selection..!!\n";

}

cout<<"\n\nWant to try more operation(Y/N)=";

cin>>ans;

}**while**(ans=='Y'||ans=='y');

**return** 0;

}

=========================================================================

**Output**

1)Length

2)ConCatination

3)Reverse

4)Equality

5)Substring

6)Copy

Enter your choice (1-6)= 1

...Length of string...

Enter string=

hello

Length of string= 5

Want to try more operation(Y/N)=y

1)Length

2)ConCatination

3)Reverse

4)Equality

5)Substring

6)Copy

Enter your choice (1-6)= 2

...ConCatination Operation...

Enter string 1= hello

Enter string 2= hi

Your entered strings are=

hello

hi

Resultant string= hellohi

Want to try more operation(Y/N)=y

1)Length

2)ConCatination

3)Reverse

4)Equality

5)Substring

6)Copy

Enter your choice (1-6)= 3

\*\*\*---Reverse Operation---\*\*\*

Enter string=hello

Reversed=olleh

Want to try more operation(Y/N)=y

1)Length

2)ConCatination

3)Reverse

4)Equality

5)Substring

6)Copy

Enter your choice (1-6)= 4

\*\*\*---Comparing Operation---\*\*\*

Enter string 1=hello

Enter string 2=Hello

String are not same..!!

Want to try more operation(Y/N)=y

1)Length

2)ConCatination

3)Reverse

4)Equality

5)Substring

6)Copy

Enter your choice (1-6)= 5

\*\*\*---Substring Operation---\*\*\*

Enter string=banana

Enter a string=na

na is repeated 2 times

Want to try more operation(Y/N)=y

1)Length

2)ConCatination

3)Reverse

4)Equality

5)Substring

6)Copy

Enter your choice (1-6)= 6

\*\*\*---Copy operation---\*\*\*

Enter string= hi

Copied string= hi

Want to try more operation(Y/N)=n