**PROGRAM:**

#include<iostream>

#include<string.h>

using namespace std;

int i,h,j,n,len1,len2,count=0,oper;

char y;

char a[100],b[100],c[100],d[100];;

//length

int length()

{

len1=0,len2=0;

for(i=0;i<100;i++)

{

if(a[i]!='\0')

{

len1++;

}

}

cout<<"\nlength of the first string is \n"<<len1<<endl;

for(j=0;j<100;j++)

{

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

{

len2++;

}

}

cout<<"\nlength of the second string is \n"<<len2<<endl;

}

//reverse

int reverse()

{

j=0,h=0;

for(i=strlen(a)-1;i>=0;i--)

{

c[j]=a[i];

j++;

}

for(i=strlen(b)-1;i>=0;i--)

{

d[h]=b[i];

h++;

}

cout<<"\nfirst string in reverse is \n";

for(n=0;n<strlen(a);n++)

{

cout<<c[n];

}

cout<<"\nsecond string in reverse is \n";

for(n=0;n<strlen(b);n++)

{

cout<<d[n];

}

cout<<endl;

}

//compare

int compare()

{

i=0;

if(strlen(a)==strlen(b))

{

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

{

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

{

count++;

}

}

if(count==strlen(a))

{

cout<<"\nboth are same\n";

}

else

{

cout<<"\n both are different\n";

}

}

else

cout<<"\nboth are different\n";

}

//copy

int copy()

{

i=0;

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

{

c[i]=a[i];

}

cout<<"\n the copy of first string is\n";

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

cout<<c[i];

for(i=0;i<strlen(b);i++)

{

d[i]=b[i];

}

cout<<"\n the copy of second string is\n";

for(i=0;i<strlen(b);i++)

cout<<d[i];

cout<<endl;

}

//concatenation

int concat()

{

j=0;

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

{

if(a[i]=='\0')

{

a[i]=b[j];

}

else

continue;

j++;

}

cout<<"\n concatenated string is\n";

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

cout<<a[i];

cout<<endl;

}

//palindrome

int palindrome()

{

j=0;

for(i=strlen(a)-1;i>=0;i--)

{

c[j]=a[i];

j++;

}

for(i=0;i<strlen(a)/2;i++)

{

if(a[i]==c[i] )

count++;

}

if(count==strlen(a)/2)

cout<<"\npalindrome\n";

else

cout<<"\nnot palindrome\n";

}

//substring

int substring()

{

int i,j,temp;

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

{

j=0;

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

{

temp=i+1;

while(a[i]==b[j])

{

i++;

j++;

}

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

{

cout<<"\nsubstrings\n";

break;

}

else

{

i=temp;

temp=0;

}

}

}

if(temp==0)

{

cout<<"\nnot substrings\n";

}

return 0;

}

//main

int main()

{

do

{

cout<<"enter the string\n";

cin>>a;

cout<<"enter the second string\n";

cin>>b;

cout<<"\nenter 1 for checking lengths \n";

cout<<"\nenter 2 for copying \n";

cout<<"\nenter 3 for comparing \n";

cout<<"\nenter 4 for reversing \n";

cout<<"\nenter 5 for checking palindrome \n";

cout<<"\nenter 6 for conactenation \n";

cout<<"\nenter 7 for checking if substring \n";

cout<<"\nenter 8 for checking all functions\n";

cin>>oper;

switch(oper)

{

case 1:{ length();

break;}

case 2: { copy();

break;}

case 3:{ compare();

break;}

case 4:{ reverse();

break;}

case 5:{ palindrome();

break;}

case 6:{ concat();

break;}

case 7:{ substring();

break;}

case 8:{ length();

copy();

compare();

reverse();

palindrome();

concat();

substring();

break;

}

default:cout<<"try again";

}

cout<<"\ndo you want to continue?(y/n)\n";

cin>>y;

}

while(y=='y'||y=='Y');

return 0;

}

**OUTPUT:**

enter the string

riamittal

enter the second string

mittal

enter 1 for checking lengths

enter 2 for copying

enter 3 for comparing

enter 4 for reversing

enter 5 for checking palindrome

enter 6 for conactenation

enter 7 for checking if substring

enter 8 for checking all functions

8

length of the first string is

9

length of the second string is

6

the copy of first string is

riamittal

the copy of second string is

mittal

both are different

first string in reverse is

lattimair

second string in reverse is

lattim

not palindrome

concatenated string is

riamittalmittal

substrings

do you want to continue?(y/n)

n