/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Online C++ Compiler.

Code, Compile, Run and Debug C++ program online.

Write your code in this editor and press "Run" button to compile and execute it.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

#include <iostream>

#include <cstring>

using namespace std;

class operation

{

string type;

public:

operation()

{

type="NULL";

}

void input()

{

cout<<endl<<"Press 1. to select arithmetic operations.";

cout<<endl<<"Press 2. to select string operations.";

cout<<endl<<"Press anything else to set it null";

cout<<endl<<"Enter value:";

int a;

cin>>a;

switch(a)

{

case 1: type="Arithmetic";

break;

case 2: type="String";

break;

default: type="NULL";

}

cout<<endl<<"Value assigned.............................";

}

void output()

{

cout<<endl<<"Type of operation is:"<<type;

}

};

class operators : public operation{

string a[100];

int n;

public:

operators( int n)

{

cout<<endl<<"No of operators considered ="<<n;

this->n=n;

}

int input()

{

if(type=="NULL")

{

cout<<endl<<"Can't use operators:";

return 0;

}

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

{

cout<<endl<<"Enter value of parameter "<<i+1<<" :";

cin>>a[i];

}

return 1;

}

void output()

{

cout<<endl<<"Type of operators:"<<type;

if(type=="Arithmetic")

{

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

{

cout<<endl<<"Parameter"<<i+1<<" has value:";

cout<<stoi(a[i]);

}

}

if(type=="String")

{

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

{

cout<<endl<<"Parameter"<<i+1<<" has value:";

cout<<(a[i]);

}

}

}

};

class optype:public operators

{

int s;

public:

int atype()

{

cout<<endl<<"Press 1. for Addition.";

cout<<endl<<"Press 2. for Subtraction.";

cout<<endl<<"Press 3. for Multiplication.";

cout<<endl<<"Press 4. for Division.";

cout<<endl<<"Enter value:";

cin>>s;

return s;

}

int stype()

{

cout<<endl<<"Press 1. for Conactination.";

cout<<endl<<"Press 2. for String Copy.";

cout<<endl<<"Press 3. for String Lengths.";

cout<<endl<<"Enter value:";

cin>>s;

return s;

}

int typedecide()

{

if(type="Arithmetic")

{

int f= atype();

return f;

}

if(type=="String")

{

int f= stype();

return f+4;

}

}

}

class addition: public optype{

int c=0;

public:

int result(){

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

{

c=stoi(a[i])+c;

}

return c;

}

};

class subtraction : public optype{

int c=0;

public:

int result(){

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

{

c=stoi(a[i])-c;

}

return c;

}

};

class multiply : public optype{

int c=0;

public:

int result(){

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

{

c=stoi(a[i])\*c;

}

return c;

}

};

class divide : public optype{

int c=0;

public:

int result(){

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

{

c=stoi(a[i])/c;

}

return c;

}

};

class concatination : public optype{

String c=NULL;

public:

String result(){

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

{

c=strncat(a[i],c);

}

return c;

}

};

class stringcopy : public optype{

String c=NULL;

public:

String result(){

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

{

c=strncpy(a[i],c);

}

return c;

}

};

int\* stringlength : public optype{

int c[100];

public:

String result(){

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

{

c[i]=strlen(a[i]);

}

return &c;

}

};

int main()

{

char c='Y';

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

{

operation o1;

o1.input();

cout<<endl<<"Enter number of operators:";

int n;

cin>>n;

operators q1(n);

q1.input();

q1.output();

optype w1;

int d=w1.typedecide();

if(d==1)

{

addition a1;

int z;

z=a1.result();

cout<<endl<<"Added result is:"<<z;

}

if(d==2)

{

subtraction s1;

int z;

z=s1.result();

cout<<endl<<"Subtracted result is:"<<z;

}

if(d==3)

{

multiply m1;

int z;

z=m1.result();

cout<<endl<<"Multipied result is:"<<z;

}

if(d==4)

{

division d1;

int z;

z=d1.result();

cout<<endl<<"Divided result is:"<<z;

}

if(d==5)

{

concatination c1;

String z;

z=c1.result();

cout<<endl<<"Conactinated result is:"<<z;

}

if(d==6)

{

stringcopy c1;

string z;

z=c1.result();

cout<<endl<<"Last copied (string)result is:"<<z;

}

if(d==7)

{

stringlength c1;

int z[100];

z=c1.result();

cout<<endl<<"String lenghts are:";

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

{

cout<<endl<<z[i];

}

}

cout<<endl<<"Wish to end or change values and repeat:";

cin>>c;

}

return 0;

}