```
/* C++ PROGRAM TO OVERLOAD + OPERATOR FOR STRING CONCATENATION */

/*NAME: SAGAR GIRI, ROLL: 205 , SEC: A*/
#include <iostream>
#include <string.h>
#include <stdlib.h>

using namespace std;
class String
{
      private:                        //PRIVATE ACCESS SPECIFIER
            char str[20];
      public:                              //PUBLIC ACCESS SPECIFIER
            String()              //DEFAULT CONSTRUCTOR
            {
                  strcpy(str,"");
            }
            String (char s[]) //ONE ARGUMENT CONSTRUCTOR
            {
                  strcpy(str,s); //COPIES S[] TO STR[]
            }
            void display()    //DISPLAY
            {
                  cout<<str;
            }
            String operator+(String); //OVERLOADING OPERATOR +
};
String String::operator +(String ss2) //OPERATOR+ FUNCTION DEFINITION
{
      if(strlen(str)+strlen(ss2.str)>=20) //IF MERGED ARRAY EXCEED THE LIMIT
            exit(1);                                    //EXIT THE PROGARM

      String temp;
      strcpy(temp.str,str);
      strcat(temp.str,ss2.str);
      return temp;
}
int main()
{
      String s1("Happy"),s2("Dashain"),s3;
      s3 = s1 +" "+ s2;              //CALL FOR THE OPERATOR+ FUNCTION CALL
      cout<<"String after concatenation = "<<endl;
      s3.display();
return 0;
}
```

**OUTPUT:**

```
String after concatenation =
Happy Dashain

-----------------
(program exited with code: 0)
Press return to continue
```

```
/*C++ PROGRAM TO DEMONSTRATE TO OVERLOAD THE RELATIONAL OPERATOR < */

/*NAME: SAGAR GIRI, ROLL: 205 , SEC: A*/
#include <iostream>
using namespace std;
class Distance
{
     private:
           int feet; float inches;
     public:
           Distance()
           { feet = 0; inches = 0.0;}
           Distance(int ft, float in)
           {
                 feet = ft;
                 inches = in;
           }
           bool operator < (Distance dd2)
           {
                 float totald1 = feet + inches/12.0;
                 float totald2 = dd2.feet + dd2.inches/12.0;
                 if(totald1 < totald2)
                       return (true);
                 else
                       return (false);
           }
};
int main()
{
     Distance d1(9,6.3),d2(6,9.4);
     if(d1 < d2)
     {
           cout<<"Distance One is less than distance two";
     }
     else
     {
           cout<<"Distance 1 is greater than or equal to"
                       " Distance two";
     }
return 0;
}
```

**OUTPUT:**

```
Distance 1 is greater than or equal to Distance two

----------------
(program exited with code: 0)
Press return to continue
```

```
/*C++ PROGRAM TO COMPARE THE TWO STRINGS */

/*NAME: SAGAR GIRI, ROLL: 205 , SEC: A*/
#include <iostream>
#include <string.h>
using namespace std;
class String
{
        private:
                enum{sz = 80};
                char str[sz];
        public :
                String()     //default constructor
                {
                        strcpy(str, " ");
                }
                String(char s[])//one argument constructor
                {
                        strcpy(str, s);
                }
                void display() const //constant display function
                {
                        cout << str;
                }
                void getstr()
                {
                        //get string from user
                        cin.get(str, sz);
                }
                bool operator == (String ss) const
                {
                        //compare the string with the string in the object
                        return(strcmp(str,ss.str) == 0) ?true:false;
                }
};
int main()
{
        String s1("yes"),s2("no"),s3 ;
        cout <<endl<<"Enter the \"yes\" or \"no\":";
        s3.getstr();
        if(s3 == s1)  //same as:  s3.operator==(s1)
                cout << "you typed yes\n";
        else if(s3 == s2) //same as:  s3.operator==(s2)
                cout << "you typed no\n";
        else
                cout << "you didn't follow instruction\n";
return 0;
}
```
**OUTPUTS:**

```
Enter the "yes" or "no":yes
you typed yes

Enter the "yes" or "no":no
you typed no

Enter the "yes" or "no":Hi
you didn't follow instruction
```