main.cpp

Run

```cpp
//10.overload the += operator to add two objects of a user defined class
#include <iostream>
class MyClass {
public:
    int a, b;
    MyClass& operator+=(const MyClass& rhs) {
        a += rhs.a;
        b += rhs.b;
        return *this;
    }
};
int main() {
    MyClass obj1, obj2, obj3;
    obj1.a = 10;
    obj1.b = 20;
    obj2.a = 5;
    obj2.b = 10;
    obj3 += obj1;
    obj3 += obj2;
    std::cout << "obj3.a: " << obj3.a << std::endl;
    std::cout << "obj3.b: " << obj3.b << std::endl;
    return 0;
}
```

Output

Clear

```
/tmp/XnuzMEVlyg.o
obj3.a: 4198575
obj3.b: 30
```

main.cpp

Run

```cpp
//11.overload a function to find the maximum value from two integer numbers and two floating point number

#include <iostream>
int findMax(int a, int b) {
    return (a > b) ? a : b;
}
double findMax(double a, double b) {
    return (a > b) ? a : b;
}
char findMax(char a, char b) {
    return (a > b) ? a : b;
}
int main() {
    int num1 = 10, num2 = 20;
    double float1 = 5.5, float2 = 3.3;
    char char1 = 'A', char2 = 'B';

    std::cout << "Maximum of two integers: " << findMax(num1, num2) << std::endl;
    std::cout << "Maximum of two floating-point numbers: " << findMax(float1, float2) << std::endl;
    std::cout << "Maximum of two characters: " << findMax(char1, char2) << std::endl;

    return 0;
}
```

Output

Clear

```
/tmp/XnuzMEVlyg.o
Maximum of two integers: 20
Maximum of two floating-point numbers: 5.5
Maximum of two characters: B
```

main.cpp

Run

Output

Clear

```cpp
//12.overload a function to concatenate two strings and two characters
    arrays separately

#include <iostream>
#include <string>

std::string concatenateStrings(const std::string& str1, const std::string&
    str2) {
    return str1 + str2;
}
std::string concatenateCharArrays(const char* arr1, const char* arr2) {
    std::string str1(arr1);
    std::string str2(arr2);
    return str1 + str2;
}

int main() {
    std::string str1 = "Hello";
    std::string str2 = "World";

    std::cout << "Concatenated String (1): " << concatenateStrings(str1,
        str2) << std::endl;
    char arr1[] = "C++";
    char arr2[] = "Programming";
    std::cout << "Concatenated String (2): " << concatenateCharArrays(arr1,
        arr2) << std::endl;

    return 0;
}
```

```
/tmp/XnuzMEVlyg.o
Concatenated String (1): HelloWorld
Concatenated String (2): C++Programming
```