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Course: object oriented C++

Code: DSA0163

#include<iostream>

class Second;

class First {

private:

int data;

public:

First(int value) : data(value) { }

friend First operator +(const First& obj1, const Second& obj2);

friend First operator -(const First& obj1, const Second& obj2);

friend First operator \*(const First& obj1, const Second& obj2);

friend First operator /(const First& obj1, const Second& obj2);

void display() {

std::cout << "Data in First class: " << data << std::endl;

}

};

class Second {

private:

int data;

public:

Second(int value) : data(value) { }

friend First operator +(const First& obj1, const Second& obj2);

friend First operator -(const First& obj1, const Second& obj2);

friend First operator \*(const First& obj1, const Second& obj2);

friend First operator /(const First& obj1, const Second& obj2);

void display() {

std::cout << "Data in Second class: " << data << std::endl;

}

};

First operator +(const First& obj1, const Second& obj2) {

return First(obj1.data + obj2.data);

}

First operator -(const First& obj1, const Second& obj2) {

return First(obj1.data - obj2.data);

}

First operator \*(const First& obj1, const Second& obj2) {

return First(obj1.data \* obj2.data);

}

First operator /(const First& obj1, const Second& obj2) {

if (obj2.data != 0) {

return First(obj1.data / obj2.data);

} else {

std::cerr << "Division by zero is not allowed." << std::endl;

return First(0);

}

}

int main() {

First obj1(5);

Second obj2(3);

First result1 = obj1 + obj2;

First result2 = obj1 - obj2;

First result3 = obj1 \* obj2;

First result4 = obj1 / obj2;

obj1.display();

obj2.display();

result1.display();

result2.display();

result3.display();

result4.display();

return 0;

}

