

Informatika3-2024/Megoldasok8

```
#include<iostream>

using namespace std;

class String {
private:
    char *str;
    int length;
    int c_string_length(const char* s);
public:
    String();
    String(const char* s);
    String(const String& other);

    void print();

    String operator+(String other);
    bool operator==(String other);
    String& operator=(String& other);

    friend ostream& operator<<(ostream& os, String s);

    ~String();
};

int String::c_string_length(const char* s) {
    int i;
    for(i = 0; s[i] != '\0'; i++) {}
    return i;
}

String::String() {
    str = new char[1];
    str[0] = '\0';
    length = 0;
}

String::String(const char* s) {
    length = c_string_length(s);
    str = new char[length + 1];
    for(int i = 0; s[i] != '\0'; i++) {
        str[i] = s[i];
    }
    str[length] = '\0';
}

String::String(const String& other) {
    this->length = other.length;
    str = new char[this->length + 1];
    for(int i = 0; other.str[i] != '\0'; i++) {
        this->str[i] = other.str[i];
    }
    this->str[this->length] = '\0';
}

String String::operator+(String other) {
    char* s = new char[this->length + other.length + 1];
    for(int i = 0; i < this->length; i++) {
        s[i] = this->str[i];
    }
    for(int i = 0; i < other.length; i++) {
        s[i + this->length] = other.str[i];
    }
}
```

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s[this->length + other.length] = '\0';
String ret = String(s);
delete[] s;
return ret;
}

void String::print() {
    cout << str << endl;
}

bool String::operator==(String other) {
    /*
    if(this->length != other.length) {
        return false;
    }
    */
    for(int i = 0; i < this->length + 1; i++) {
        if (this->str[i] != other.str[i]) {
            return false;
        }
    }
    return true;
}

String& String::operator=(String& other) {
    if(this == &other) {
        return *this;
    }
    delete[] this->str;
    this->str = new char[other.length + 1];
    for(int i = 0; i < other.length; i++) {
        this->str[i] = other.str[i];
    }
    this->str[other.length] = '\0';
    this->length = other.length;
    return *this;
}

String::~String() {
    delete[] str;
}

ostream& operator<<(ostream& os, String s) {
    cout << s.str;
    return os;
}

class Dolgozo {
protected:
    String nev;
    int fizetes;
public:
    Dolgozo(String n, int f) : nev(n), fizetes(f) {}
};

class Ideiglenes : public Dolgozo {
protected:
    int lejarat;
public:
    Ideiglenes(String n, int f, int l) : Dolgozo(n, f), lejarat(l) {}
    void hosszabbit(int n);
};
```

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};

void Ideiglenes::hosszabbit(int n) {
    lejarat += n;
}

class Specialista : public Dolgozo {
protected:
    String szakterulet;
public:
    // majd
}

int main(void) {
    String nev = String("Bela");
    String nev2 = String("Terez");
    Dolgozo dl = Dolgozo(nev, 20000);
    Ideiglenes il = Ideiglenes(nev2, 30000, 2025);

    Dolgozo* p = new Ideiglenes(nev2, 30000, 2025);
    return 0;
}
```