**게임프로그래밍 보고서**

학번:20407

이름:김현우

# 연습문제 40 : Oval클래스 소스프로그램 및 주석

#include<iostream>

using namespace std;

class Oval {

public:

int width, height;

Oval();

Oval(int, int);

~Oval();

int getWidth();

int getHeight();

void set(int, int);

void show();

};

Oval::Oval() :Oval(1, 1) {}

Oval::Oval(int \_width, int \_height){

width = \_width;

height = \_height;

}

int Oval::getWidth(){

return width;

}

int Oval::getHeight(){

return height;

}

void Oval::set(int \_width, int \_height){

width = \_width;

height = \_height;

}

void Oval::show(){

cout << "width = " << width << ", height = " << height << endl;

}

Oval::~Oval(){

cout << "Oval finish : width = " << width << ", height = " << height << endl;

}

int main(){

Oval a, b(3, 4);

a.set(10, 20);

a.show();

cout << b.getWidth() << ", " << b.getHeight() << endl;

}

# 연습문제 41 : Add Sub Mul Div 소스프로그램 및 주석

#include<iostream>

using namespace std;

class Add {

int a, b;

void setValue(int \_a, int \_b){

a = \_a;

b = \_b;

}

int calculate(){

return a + b;

}

};

class Sub {

int a, b;

void setValue(int \_a, int \_b){

a = \_a;

b = \_b;

}

int calculate(){

return a - b;

}

};

class Mul {

int a, b;

void setValue(int \_a, int \_b){

a = \_a;

b = \_b;

}

int calculate(){

return a \* b;

}

};

class Div {

int a, b;

void setValue(int \_a, int \_b){

a = \_a;

b = \_b;

}

int calculate(){

return a / b;

}

};

int main(){

Add a;

Sub s;

Mul m;

Div d;

int n1, n2, op;

cin >> n1;

cin >> n2;

cin >> op;

switch (op){

case '+':

a.setValue(n1, n2);

cout << a.calculate() << endl;

break;

case '-':

s.setValue(n1, n2);

cout << s.calculate() << endl;

break;

case '\*':

m.setValue(n1, n2);

cout << m.calculate() << endl;

break;

case '/':

d.setValue(n1, n2);

cout << d.calculate() << endl;

break;

}

}

# 연습문제 42 Account 소스프로그램 및 주석

#include<iostream>

#include<string>

using namespace std;

class Account {

public:

string owner;

int id, balance;

Account(string \_owner, int \_id, int \_balance){

owner = \_owner;

id = \_id;

balance = \_balance;

}

void deposit(int \_amount){

balance += \_amount;

}

string getOwner(){

return owner;

}

int inquiry(){

return balance;

}

int withdraw(int \_balance){

balance -= \_balance;

if (balance < \_balance){

balance = 0;

return balance;

}

else

return balance;

}

};

int main(){

Account a("sunrin", 1, 5000);

a.deposit(50000);

cout << a.getOwner() << " balance: " << a.inquiry() << endl;

int money = a.withdraw(20000);

cout << a.getOwner() << " banance: " << a.inquiry() << endl;

}

# 연습문제 43 CoffeeMachine소스프로그램 및 주석

#include<iostream>

using namespace std;

class CoffeeMachine {

public:

int beans, h2o, sugar;

CoffeeMachine(int \_beans, int \_h2o, int \_sugar){

beans = \_beans;

h2o = \_h2o;

sugar = \_sugar;

}

void show(){

cout << "CoffeeMachine state: coffee " << beans << ", water " << h2o << ", sugar " << sugar << endl;

}

void drinkEspresso(){

beans--;

h2o--;

}

void drinkAmericano(){

beans--;

h2o -= 2;

}

void drinkSugarCoffee(){

beans--;

h2o -= 2;

sugar--;

}

void fill(){

beans = 10;

h2o = 10;

sugar = 10;

}

};

int main(){

CoffeeMachine java(5, 10, 3);

java.drinkEspresso();

java.show();

java.drinkAmericano();

java.show();

java.drinkSugarCoffee();

java.show();

java.fill(); // 커피, 물, 설탕 각각 10으로 채우기

java.show();

}