

Week 4-1 : Inline Functions, Default Arguments, Function Overloading

Part1. Inline Functions

Function which is located in program code line

Inline Function can improve performance

depend on Data Type

Compiler handle inline keyword. When compiler think inline is not good for performance, then ignore inline keyword. sometimes compiler makes inline arbitrarily.

Part2. Default Arguments

case1.

```
int number(int num=0)
{
    return num;
}
```

When user passes nothing to parameter, parameter has 0 value , 0 is default value. so, number() and number(0) show same result.

case2.

```
int adder(int num1=0, int num2=0)
{
    return num1+num2;
}
```

When user passes nothing to parameter, parameter has 0, 0 values respectively regard this situation as 0 value passed, 0 is

default value. so, `adder()` and `adder(0,0)` show same result.

case3.

```
int adder(int num1, int num2=0)
{
    return num1+num2;
}
```

When you change `adder` function like this, `adder(10)` and `adder(10,20)` show 10, 30 result values.

case4.

```
int adder(int num1=0, int num2)
{
    return num1+num2;
}
```

When you change `adder` function like this, does not work. because, parameter be filled from left to right.

[Exercise]

Make a 'Vending' class, which has 'cup' variable(private) and 'coffee' method (parameter : kinds of coffee, money). When you first, just input kinds of coffee and show the result (default money value), Second input money value and show the number of cups of coffee result.

- Price (use #define)

americano : 200, caffe-latte : 400

- Handling error case

1. input a number over '3' value in kinds of coffee

2. short of money

```
CA. C:\windows\system32
**just select** <1:americano, 2:caffe-latte>
2
short of money
0 cups of coffee
**input money**
2000
5 cups of coffee
계속하려면 아무 키나 누르십시오 . . .
```

```
CA. C:\windows\system32
**just select** <1:americano, 2:caffe-latte>
3
Not resistered goods
0 cups of coffee
[error] Not resistered goods
계속하려면 아무 키나 누르십시오 . . .
```