Exercise

- i學園繳交作業於今日23:59前分數打八折

課程小助教 (+5%)

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Exercise 1 **Call by Value & Call by Reference**

- Please enter two numbers and print the result.
- Transfer these two numbers by using ;

  (1)Call by Value

  (2)Call by Reference

result :

```
Plz Enter Two Number :
num1 = 10
num2 = 20

After Swap :  num1' = 20 & num2' = 10
Call by Value : num1 = 10 & num2 = 20

After Swap :  num1' = 20 & num2' = 10
Call by Reference : num1 = 20 & num2 = 10
```

Use the format :

(1)

```
void Value(int x, int y)
{
    t = x;
    x = y;
    y = t;
}
```

(2)

```
void Reference(int* x, int* y)
{
    t = *x;
    *x = *y;
    *y = t;
}
```

Exercise 2 **Matrix multiplication**

- Please enter the level of matrix and print first matrix elements and second matrix elements. Then performing multiplication on the matrices.

formula :

$$\mathbf{A} = \begin{bmatrix} a_{1,1} & a_{1,2} & \cdots \\ a_{2,1} & a_{2,2} & \cdots \\ \vdots & \vdots & \ddots \end{bmatrix} \mathbf{B} = \begin{bmatrix} b_{1,1} & b_{1,2} & \cdots \\ b_{2,1} & b_{2,2} & \cdots \\ \vdots & \vdots & \ddots \end{bmatrix}$$

$$\mathbf{AB} = \begin{bmatrix} a_{1,1}[b_{1,1} & b_{1,2} & \ldots] + a_{1,2}[b_{2,1} & b_{2,2} & \ldots] + \cdots \\ a_{2,1}[b_{1,1} & b_{1,2} & \ldots] + a_{2,2}[b_{2,1} & b_{2,2} & \ldots] + \cdots \\ & & \vdots & & \end{bmatrix}$$

result :

```
Enter the matrix level n=3
enter the A matrix element=
1 2 3
1 2 3
1 2 3
enter the B matrix element=
1 2 3
1 2 3
1 2 3
multiply of the matrix=
6       12      18
6       12      18
6       12      18
```

Use the format :

```
void Mul(int mul[10][10], int a[10][10], int b[10][10]) {
    ...
        mul[i][j] += a[i][k] * b[k][j];
    ...
}
```

WK11_Ex1.txt

Wk11_Ex2.txt