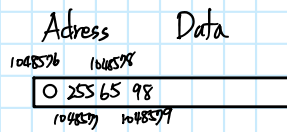


Pointer and Address

Tuesday, August 10, 2021 2:04 PM

記憶體定址。

以 Byte 為單位。



int value = 1 ;
const. int *ptr_const = &value ;
不能被改。

Pointer and Array

Tuesday, August 10, 2021 2:45 PM

```
double arr[4] = {1, 2, 3, 4};
```

```
double *ptr = arr;
```

```
for (int i=0; i<4; i++) {
```

```
    cout << arr[i] << endl;
```

```
} cout << ptr[i] << endl;
```

```
for (int i=0; i<4; i++) {
```

```
    cout << *(ptr+i) << endl;
```

```
for (int i=0; i<4; i++) {
```

```
    cout << *ptr << endl;
```

```
    ptr++
```

```
}
```

← 模一樣.

也單用 arr[4].

arr 就不能改
因為他是被劃定成 array.

0,0 ptr++

0,1

0,2

1,0

1,1

1,2

2,0

2,1

2,2.

Pointer and Object

Tuesday, August 10, 2021 3:06 PM

在 member function 中表示自己.

this → X

this → name.

*this

Other

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保證是 pointer 型別。

$\text{int}^* p1 = \text{nullptr}; \rightarrow \text{C++}$

$\text{int}^* p2 = \text{NULL}; \rightarrow \text{C}.$

可以在 polymorphism 的情況有用。

Allocate Single Object

Tuesday, August 10, 2021 3:38 PM

```
uint32_t *a = new uint32_t;  
uint32_t *b = new uint32_t[10];  
delete [] b;
```

Allocate Multidimensional Array

Tuesday, August 10, 2021 3:43 PM

```
int N ;  
cin >> N ;  
char **name = new *char[N] ;  
for (int i=0 ; i<N ; i++) {  
    name[i] = new char[32] ;  
    cin >> name[i] ;  
}  
,
```

Linked List

Tuesday, August 10, 2021 3:45 PM

- Operation
 - Traversal
 - Search
 - Insertion
 - Deletion.