

Pointers

https://www.youtube.com/watch?v=2ybLD6_2gKM&ab_channel=LowLevel

MEMORY

0X1000	0X4
0X1004	0X1000
0X1008	
0X100C	
0X1010	
0X1014	
0X1018	

ADDRESS

VALUE

```
int x = 4;  
int *pX = &x;
```

```
int x = 4;
```



English: “integer named x is set to 4”

```
int * pX = &x;
```



English: “integer pointer named pX
is set to the address of x”

```
int * pX = &x;
```

```
int y = *pX;
```



English: “integer named *y* is set to
the thing pointed to by *pX*”



```
#include <stdio.h>

void updateAge(int *age, int newAge)
{
    *age = newAge;
}

int main(int argc, char **argv)
{
    int lowLevelLearningAge = 0;
    updateAge(&lowLevelLearningAge, 100);

    printf("Updated age: %d\n", lowLevelLearningAge);
    return 0;
}
```



```
#include <stdio.h>
#include <stdlib.h>

int main(int argc, char **argv)
{
    char *heapMemory = malloc(100);
    if (NULL == heapMemory)
    {
        perror("malloc failed bruh");
    }

    return 0;
}
```