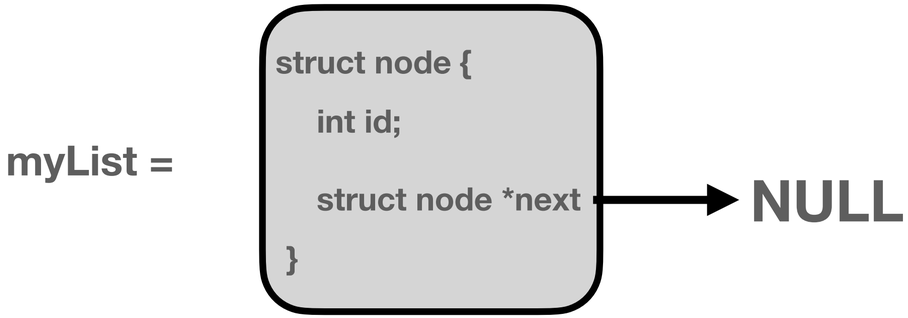
Länkade listor #2

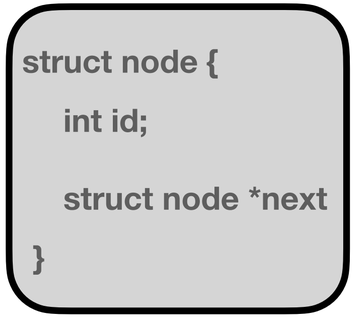
```
struct node *myList = (struct node *) malloc( sizeof( struct node ));
```



Add a node to a linked list

a)

newNode =

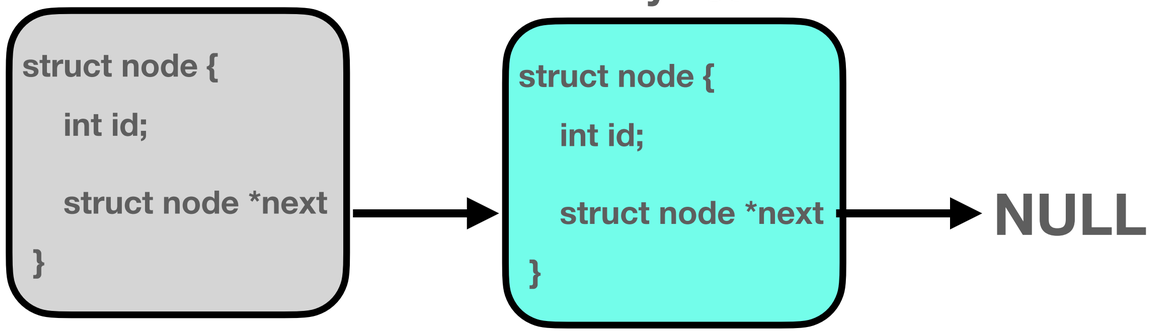


/* allocate memory (malloc) newNode = malloc ... */

b)

myList

newNode =

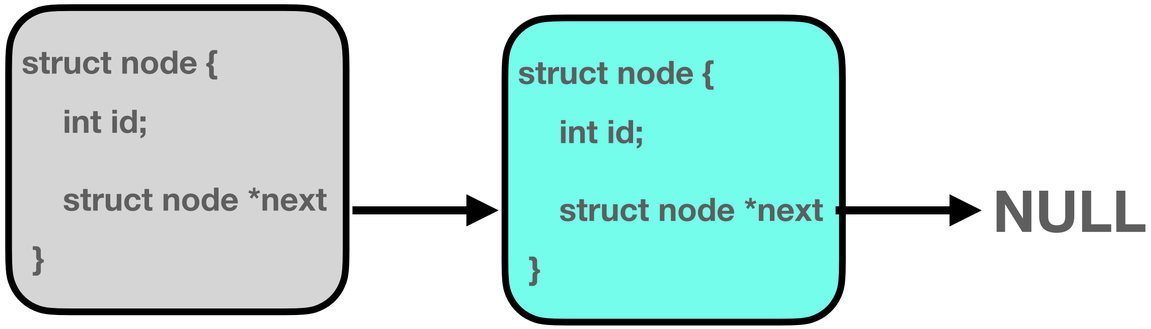


/* set the new node->next to the listhead */

c)

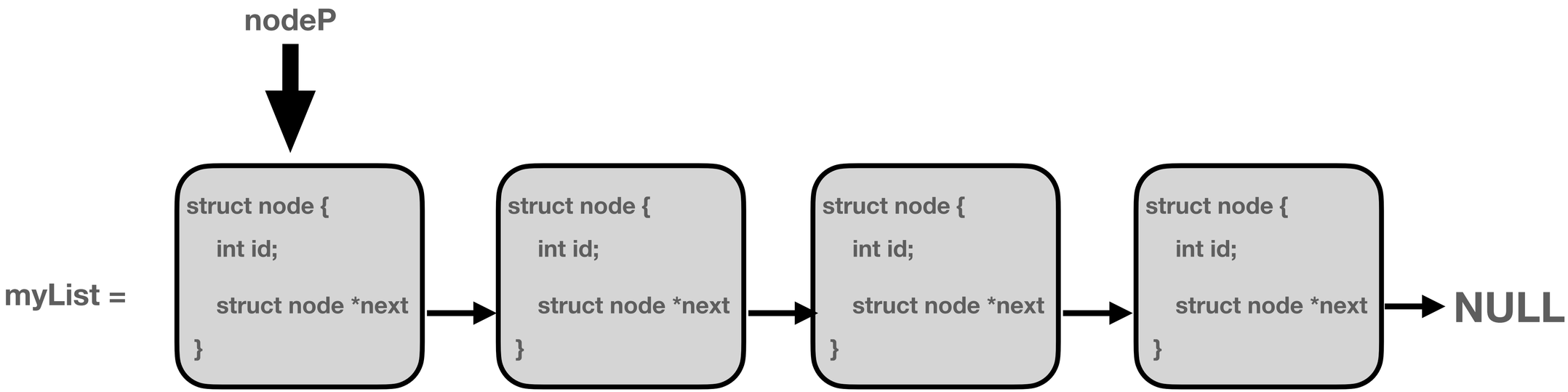
newNode

myList =

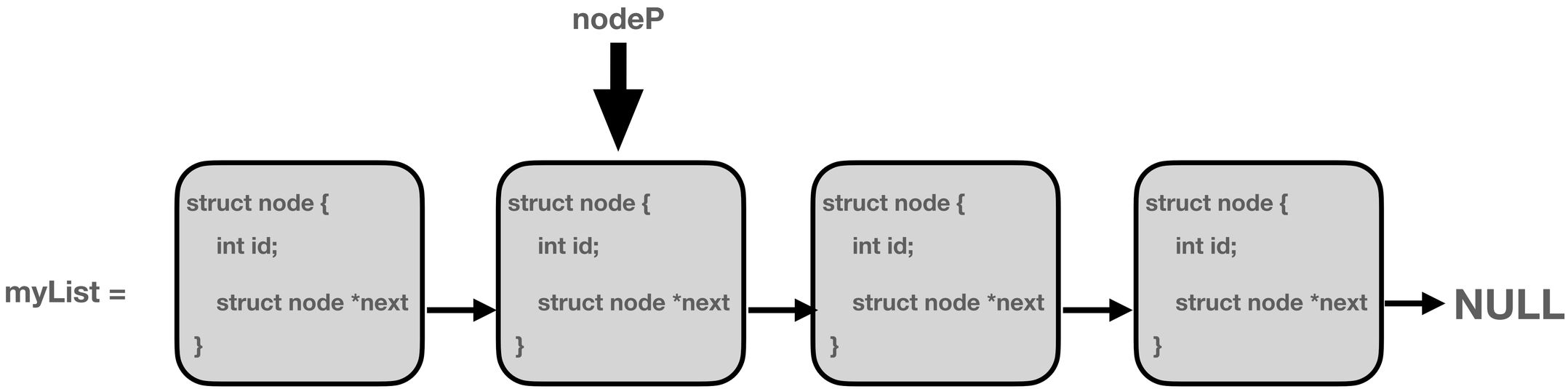


/* set the listhead->next to the new node */

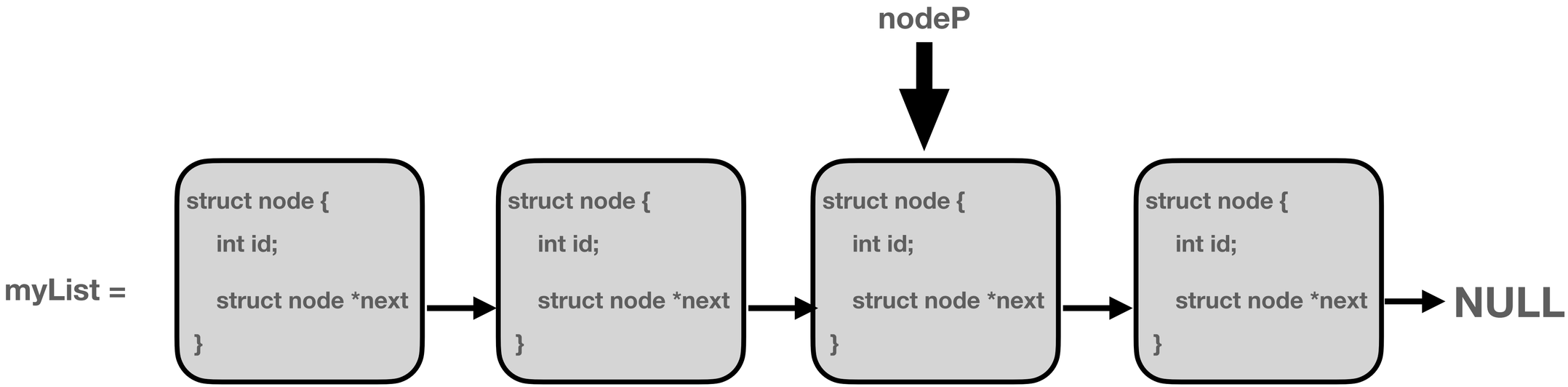
```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
        printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



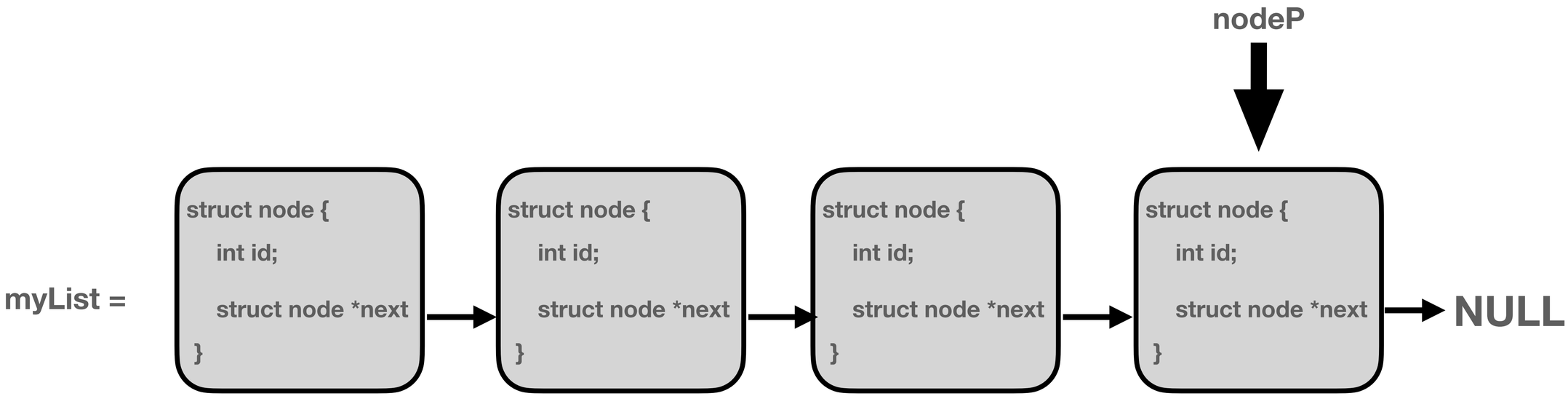
```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
        printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



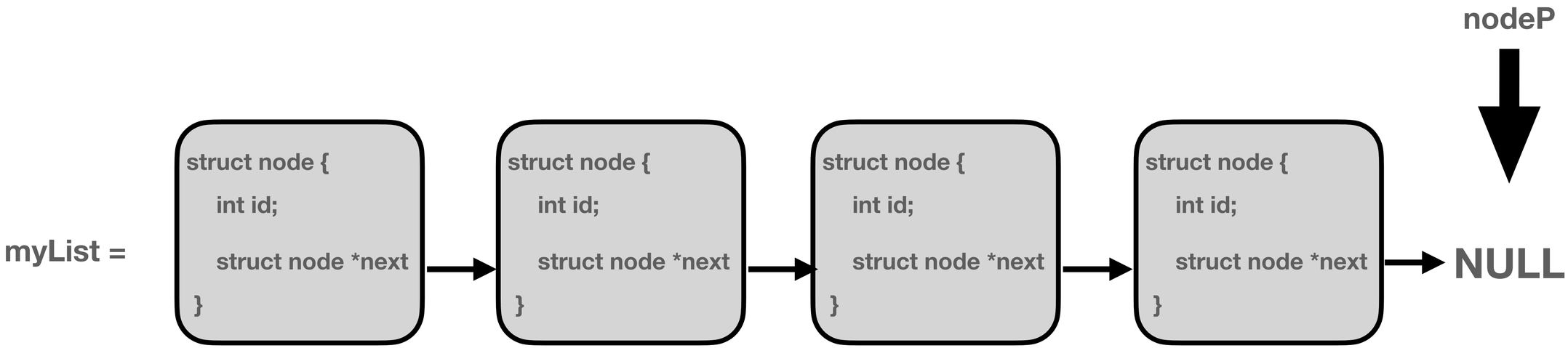
```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
        printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
        printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
        printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



Assignments

Do not use copy&paste, it is important for learning to write all the code using your hands.

1. Create a new repository and add a C file with code that use a linked list .... try to create the code without looking at some other code ...

2. Repeat above step 1 until you can write an example of creating and using a simple linked list in C without copying or looking at an existing example.

3. Create another repository with a program that have functions for **inserting** a node in a list, **delete** a node in a list, **add** a node **at the end** of a list, **sorting** a list. It is permitted to look for an example for inspiration to write these functions.

   Now create a repository and add a C file. In the C file, try to write the code (as in step 3) without looking on an existing code.

4. Repeat 4 until you master creating repositories and adding code with linked lists and functions that operate on them.