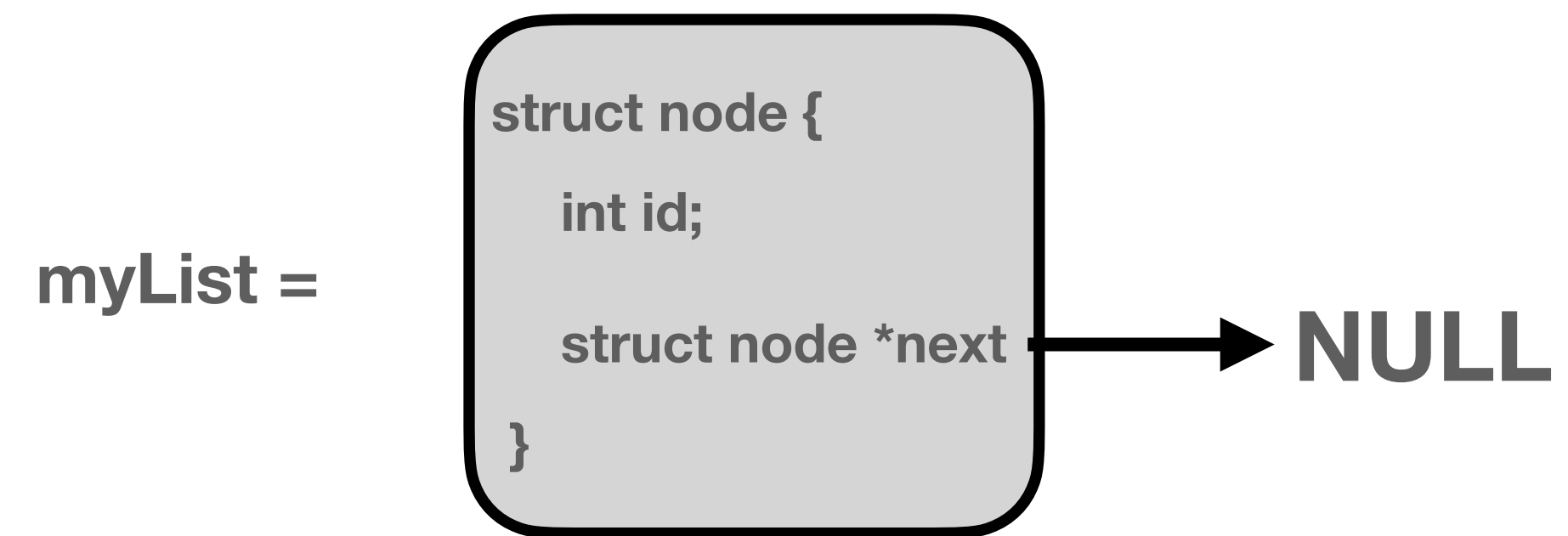


Länkade listor #2

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



Add a node to a linked list

a)

newNode =

```
struct node {  
    int id;  
    struct node *next  
}
```

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

b)

newNode =

```
struct node {  
    int id;  
    struct node *next  
}
```

myList

```
struct node {  
    int id;  
    struct node *next  
}
```

NULL

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

c)

myList =

newNode

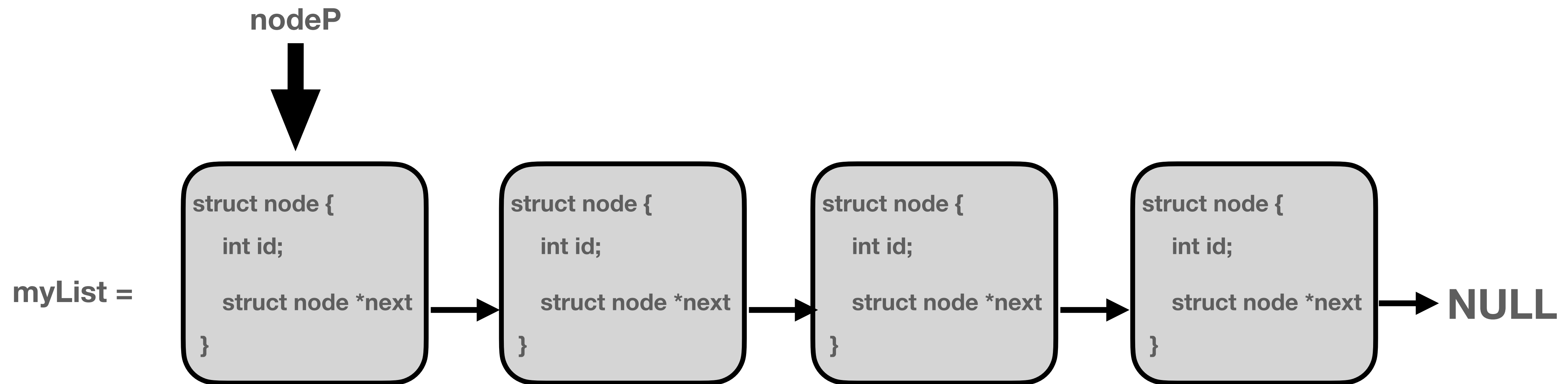
```
struct node {  
    int id;  
    struct node *next  
}
```

```
struct node {  
    int id;  
    struct node *next  
}
```

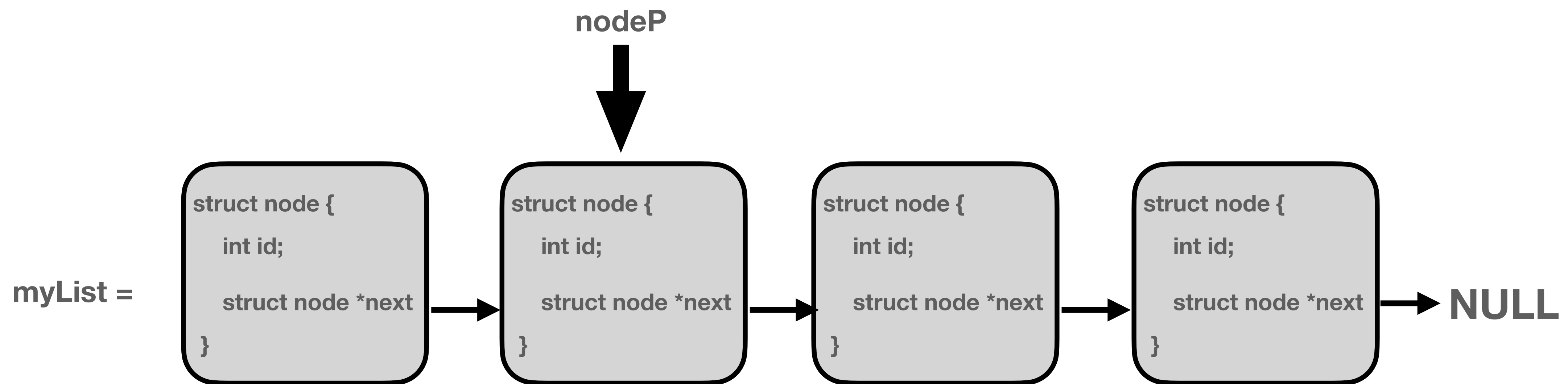
NULL

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

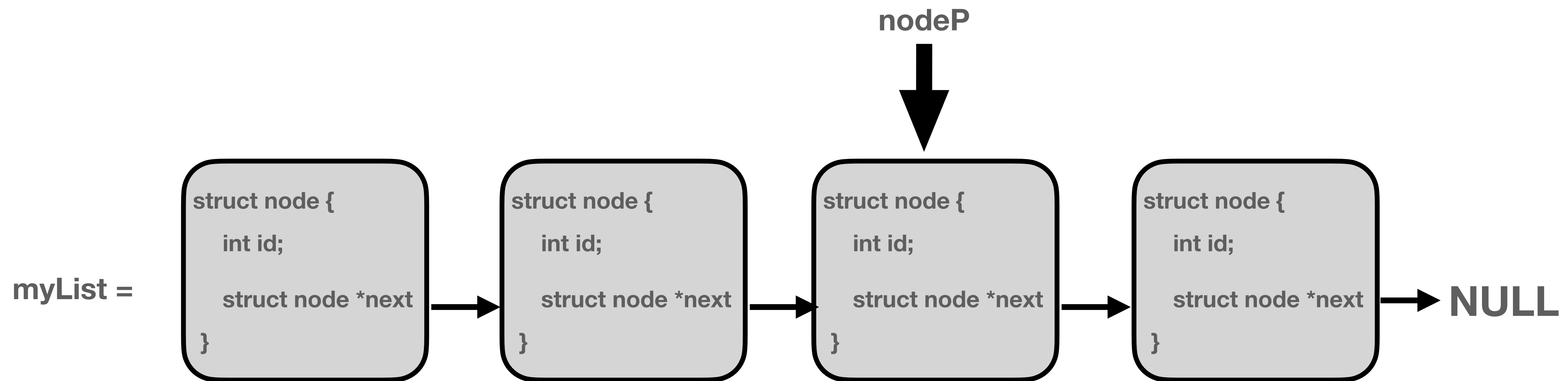
```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
    printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



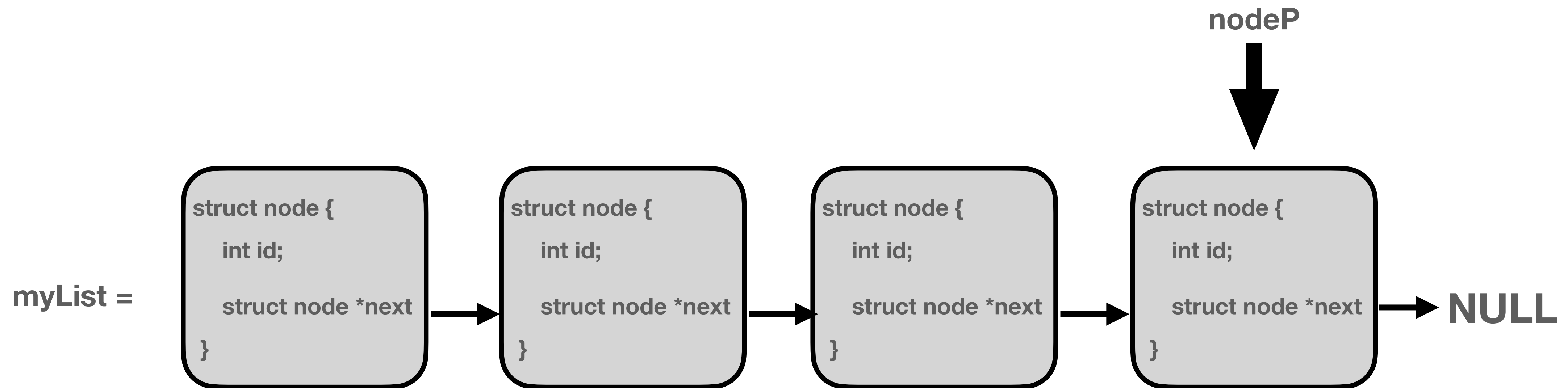
```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
    printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



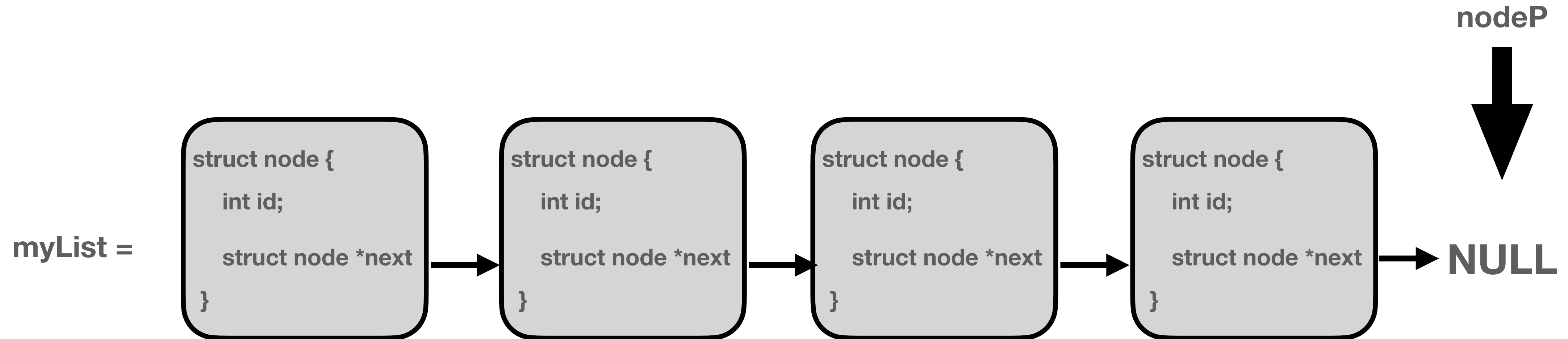
```
for( struct node *nodeP = myList; nodeP != NULL; nodeP = nodeP->next)
{
    printf("node [%p], id: %d\n", nodeP,nodeP->id);
}
```



```
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

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