



# COMP1511

## Tutorial 9

*free | linked lists*



# free

If we don't free memory when we're done, the computer will never be able to use this memory for anything else - this is a memory leak

If we cause lots of memory leaks the computer can eventually run out of memory

We can check for memory leaks with leakcheck:

```
dcc --leakcheck -o filename c_file
```



# free

Usage: `void free(void *pointer)`

E.g. `free(head) ;`

(where head is a pointer to the memory we want to free)

Remember: we are freeing memory, not freeing pointers!

# Linked Lists Practice





# Edge cases

What are the main edge cases to consider with linked lists?

- Empty list (NULL)

- List of length 1

- Longer lists

- Operations (e.g. inserting, deleting) at the head of the linked list

- Operations in the middle of the linked list

- Operations at the tail of the linked list