

# Implementation

Moodle theme: Information Representation  
Moodle: Linked Lists

Q: How do we need to change

```
struct person {char *name; int age;}; ?  
struct person {char *name; int age;  
                struct person *next;};
```

Q: How do we declare and initialise the list to be empty?

```
struct person *peoplelist = NULL;
```

## Question: C code?

Create and initialise new “person”,  
and insert at start of list, setting “new\_start”

```
new_person= (struct person*) malloc (sizeof(struct person));  
if (new_person==NULL) . . .  
new_person->name= name4;  
new_person->age= age4;  
new_person->next= old_start;  
new_start= new_person;
```

# Implementation

Q: If the current list is empty?

```
if (list==NULL)
    list= new_person;
else . . .
```

Q: If it isn't empty,  
we need to find the last item in the list  
and then?

```
last_item->next= new_person;
```

Q: How to find the last item in the list?

```
loop down the list until (list_item->next==NULL)
```