

CS 208

Mon, 18 Sep 2023

typedef

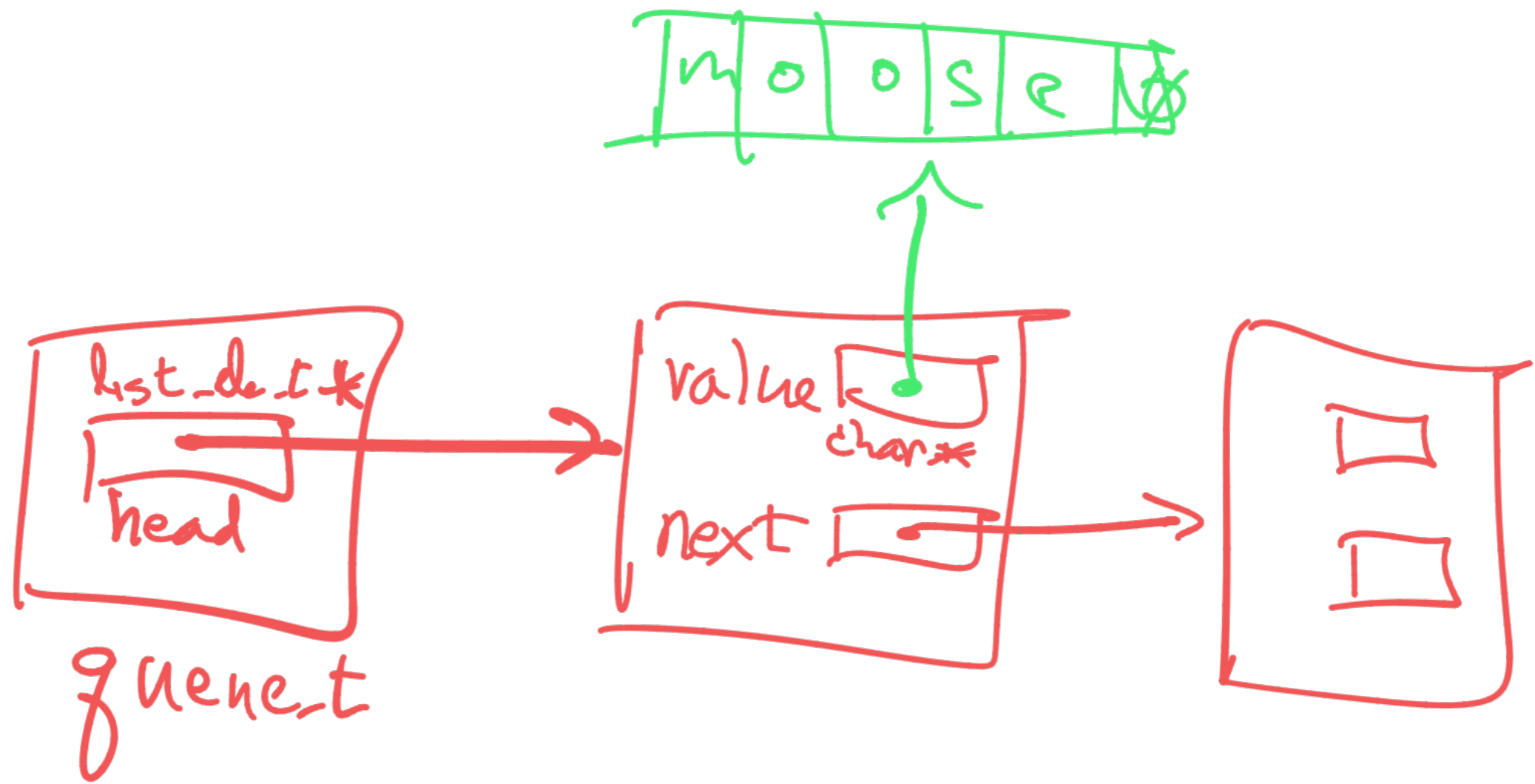
int
previously
existing
type

number;
new type
we're
creating

number

n = 17;

// OK



^{Want}
~~Need~~ utility function

```
list_elt * allocate_node(char *s)
```

```
// allocate memory for one
```

```
// node/list_elt
```

```
// allocate mem for value  
to point to
```

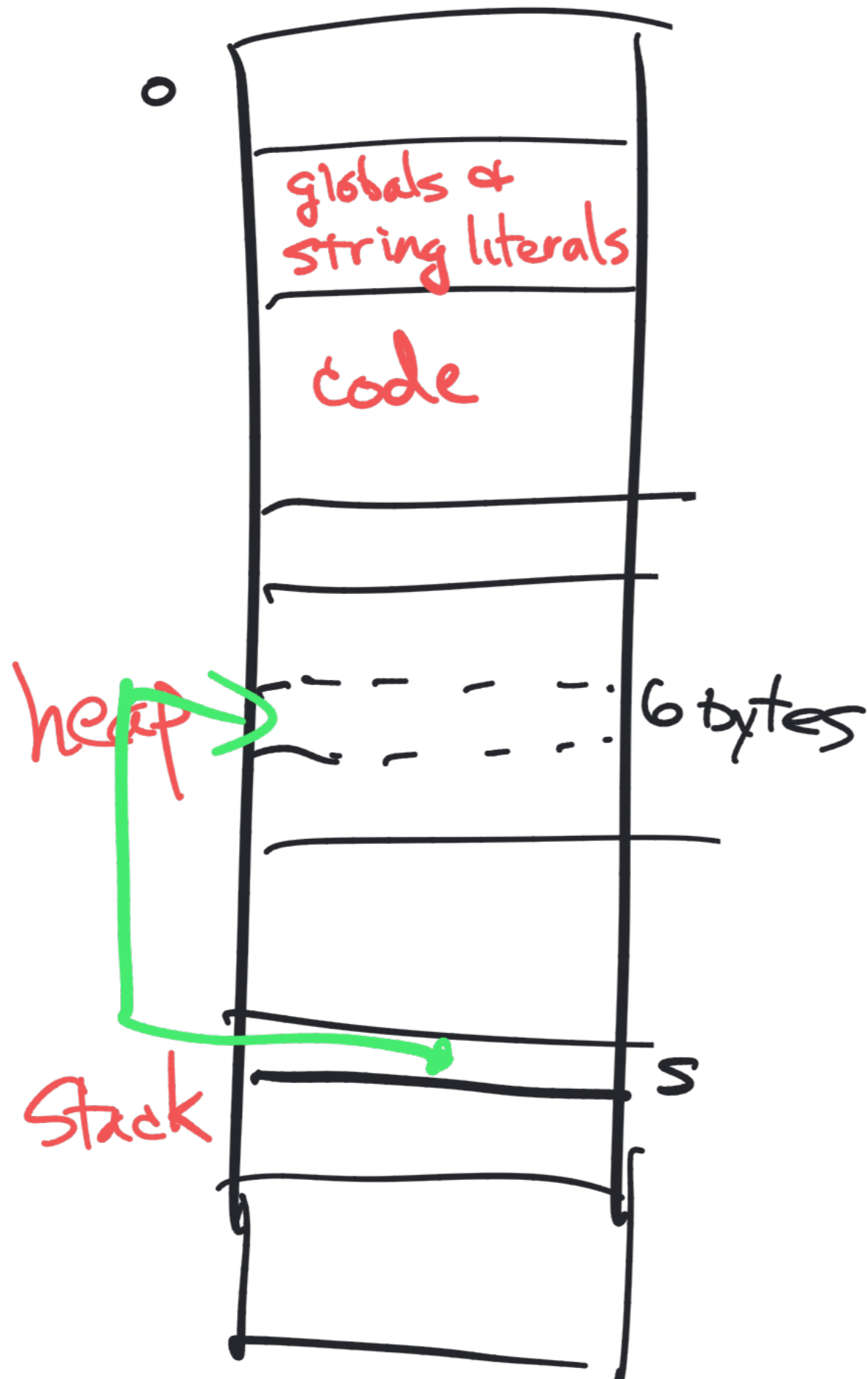
```
// copy s over to value
```

```
// return ptr to new node
```

```
g-allocate_node (char* "goat")  
list_ele_t *new_node = malloc(-);  
if (new_node == NULL) {  
    return NULL;  
}
```

could be
NULL

```
→ new_node → value = malloc(-);  
if ( — == NULL ) {  
    free(new_node);  
    return NULL;  
}
```



```
char *S  
= malloc(6);
```



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Advice

- Do `q_insert_head` first
- `queue_t` in `queue.h`
might need a length field
- etc.