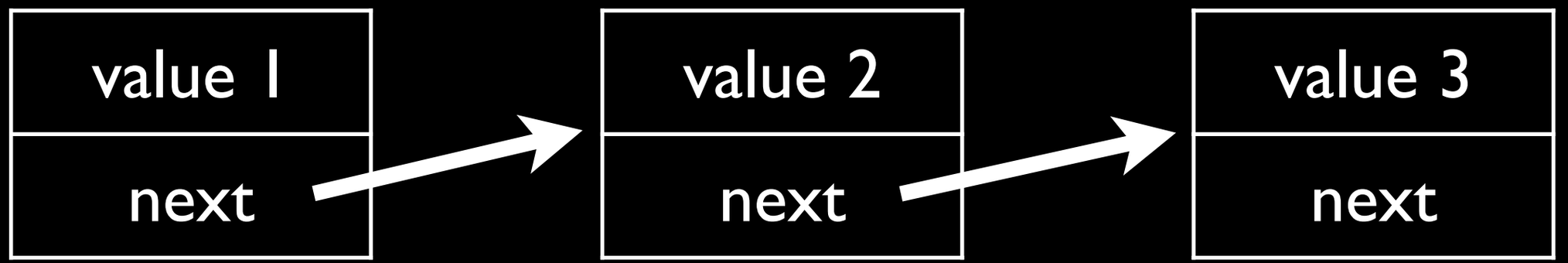
CS 261 Lab #4

Linked lists & palindromes

Oregon State University OSU

A linked list is a **set of nodes** that are **linked** to one another



Unlike an array, they don't need to be **contiguous**

value 1	value 2	value 3
index 0	index 1	index 2

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

value holds the data

next points to the next node
in the list

if **next** is **NULL**, we've
reached the end of the list

The **linked list** data type can be used to implement more abstract data types

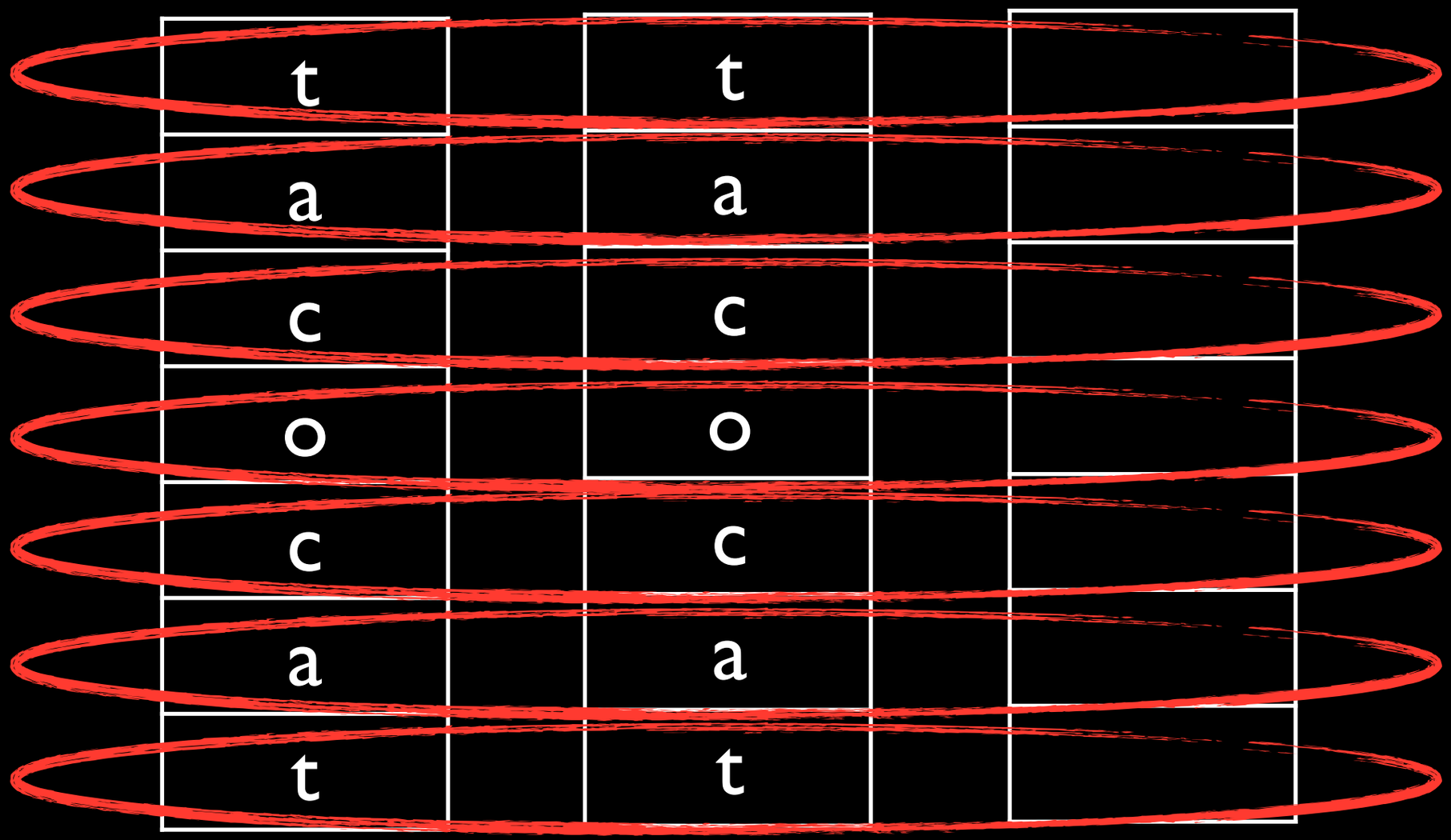
For this lab, you'll implement a **stack** with a **singly-linked list**

Then, you'll use your implementation to write a **palindrome detector**

Palindromes are words or phrases that are spelled the same forwards and backwards

We can use **stacks** to detect them!

taco cat



1) Implement a stack using a **singly-linked list**

2) Finish the **palindrome detector**

http://classes.engr.oregonstate.edu/eecs/spring2015/cs261-001/lab4.php