

← course home (/table-of-contents)

You have a singly-linked list and want to check if it contains a cycle.

A singly-linked list is built with nodes, where each node has:

- node.next—the next node in the list.
- node.value—the data held in the node. For example, if our linked list stores people in line at the movies, node.value might be the person's name.

For example:

```
class LinkedListNode(object):

def __init__(self, value):
    self.value = value
    self.next = None
```

A **cycle** occurs when a node's next points *back to a previous node in the list*. The linked list is no longer linear with a beginning and end—instead, it cycles through a loop of nodes.

Write a function <code>contains_cycle()</code> that takes the first node in a singly-linked list and returns a boolean indicating whether the list contains a cycle.