Linked Lists

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Lists in Python

- So how do you think lists are *implemented* in Python?

- They are really *dynamic arrays*!

- Are not what we traditionally refer to as a *list* in CS

- We will look at real "*linked lists*"

Linked Lists

- A set of *nodes linked* together.

- Each node consists of *data* and a *link* to the next node.

- Think of it as a train each car contains *cargo* and a link to the *next car*.

Linked Lists

head ⇨ | data | ⇨ | data | ⇨ | data | ⇨ None

- *Head* points to the start of the list

- Each *node* has a *data field* containing an *object*

- *Each node has a link field* to the next node

- We implement this as an ADT.

- The last node points to *None*.

Linked Lists

What *operations* would you expect a linked list to have?

- Add
- Print
- Remove
- Search
- …