CS2100

Lists

Recap

- Extra credit due Monday
   (via git)
- HW due Friday
- Lab due Friday

- Next HW (over lists)
   due Monday after
      break
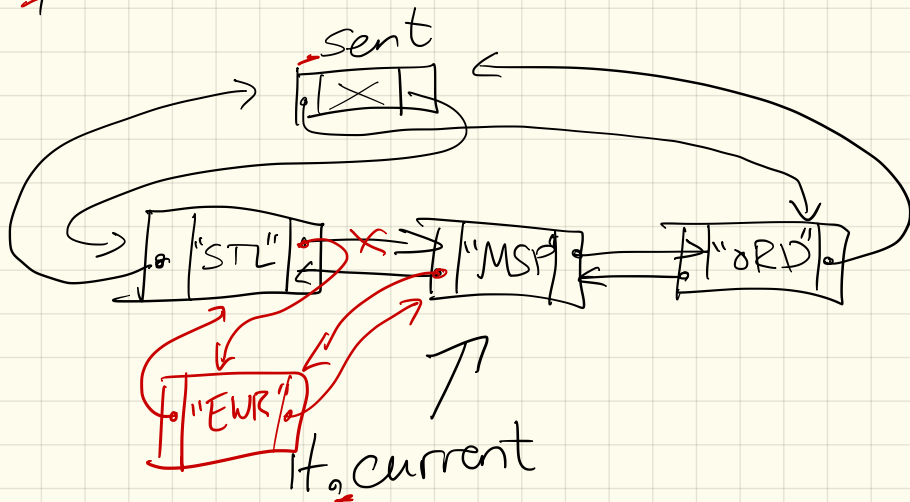
Last time:

Doubly linked Lists

Goal:
- Python-like list functionality
- Linked structure

We did:

- Node struct
- Iterator class
- const_iterator class
- "easy" functions:
  - constructor
  - empty
  - front
  - back

Today: insert
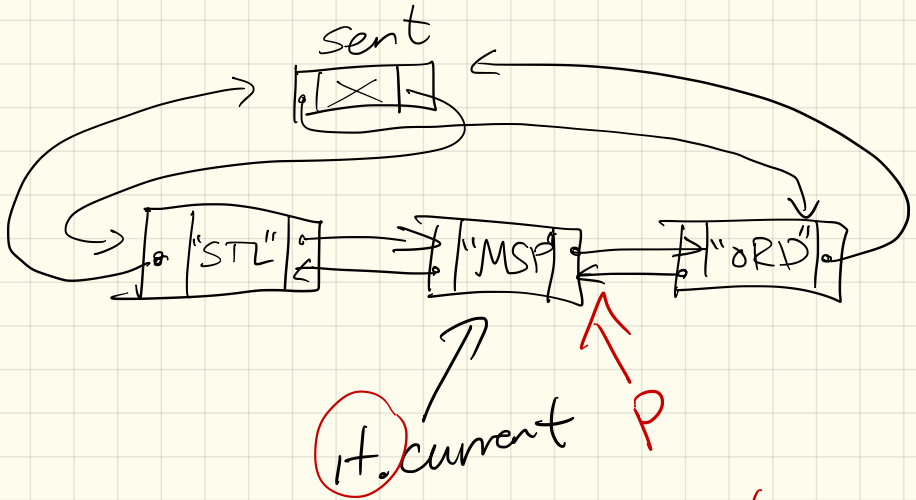
mylist:


```
sent
[  X  ]
```

STL   MSP   ORD

EWR

It, current

in main:

mylist.insert (it, "EWR");

location   date

Next:
my list. erase (it); main

sent

"STL" "MSP" "ORD"

it. current   P

Node * p = it._current

delete p
return (prev of p)

Last but not least:
  Housekeeping!

  Similar to SLinkedList,
      but more pointers.

Runtimes :

Except house keeping, every function we've coded is $O(1)$ time.

Lost: operator [ ]

↳ <u>this</u> will be $O(n)$

Next time:

Searching, Sorting, &
more trade offs