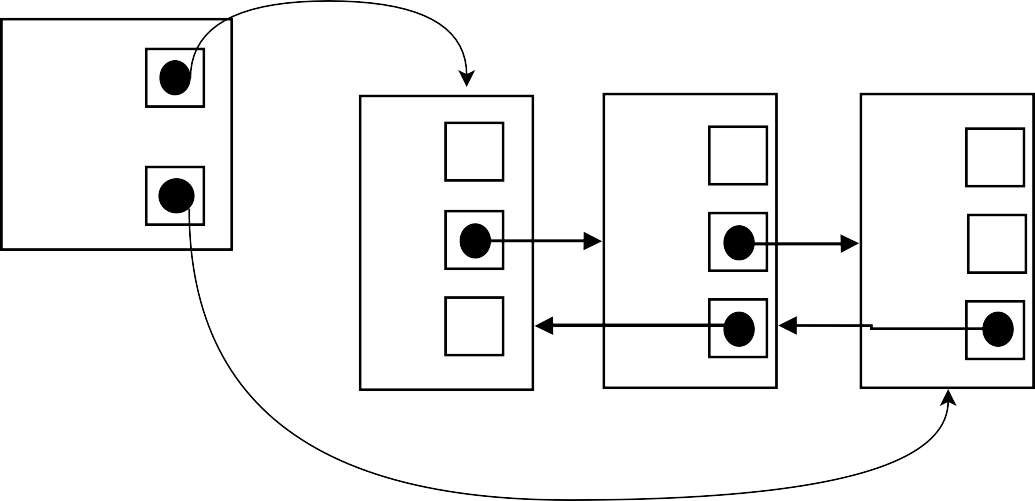
Team Members: Mohammedamaan Iqbal Shaikh & Marc Nicolas Oliva

DSA555NSB Assignment 1 Part 1

list.insert(begin(), 25)



front\_

data\_

20

data\_ 10

data\_ 30

back\_

next\_

next\_

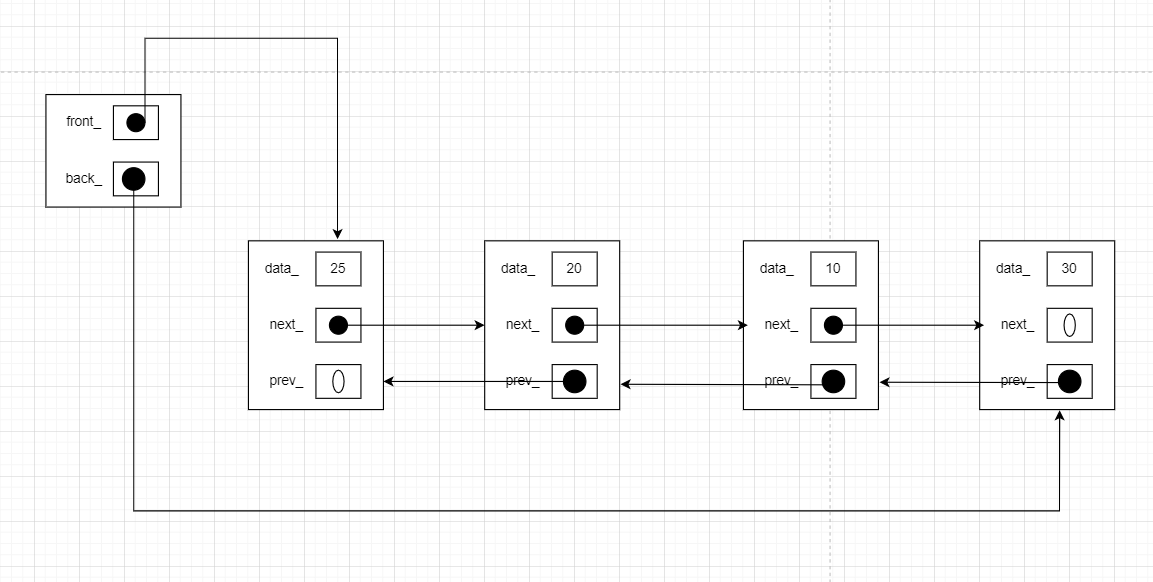
next\_

0

prev\_ 0

prev\_

prev\_



list.insert(loc, 25)



front\_

back\_

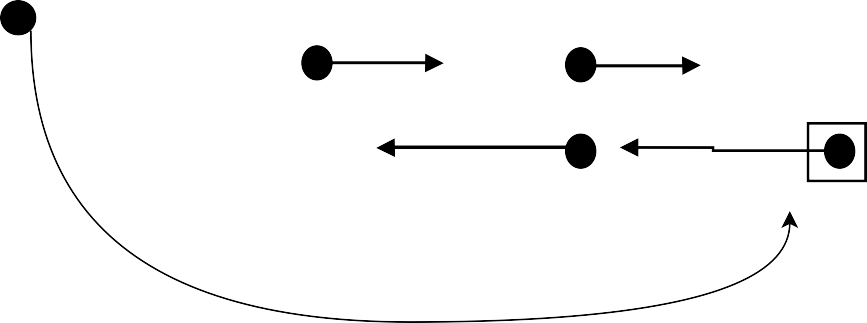


data\_ 10

next\_

prev\_

loc



data\_

20

next\_

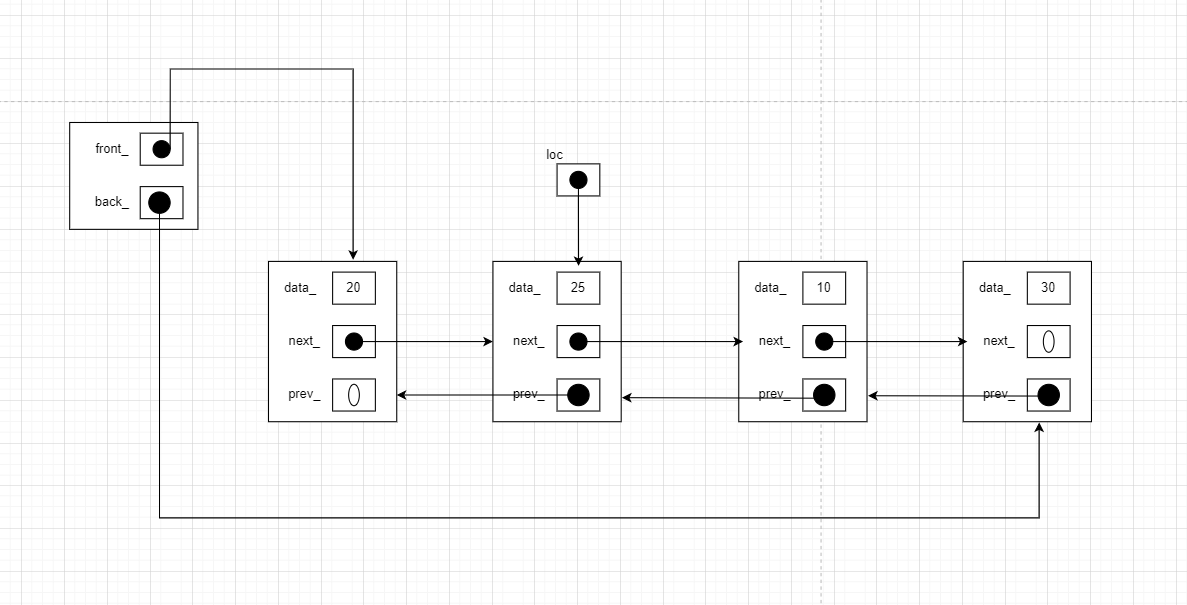
prev\_ 0

data\_ 30

next\_

0

prev\_



list.insert(end(), 25)



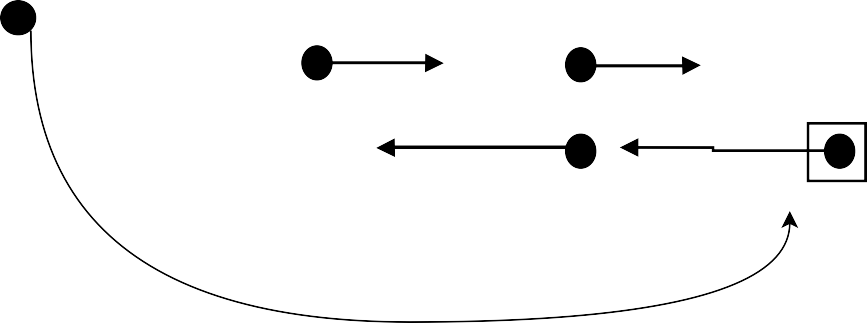
front\_

back\_

data\_ 10

next\_

prev\_



data\_

20

next\_

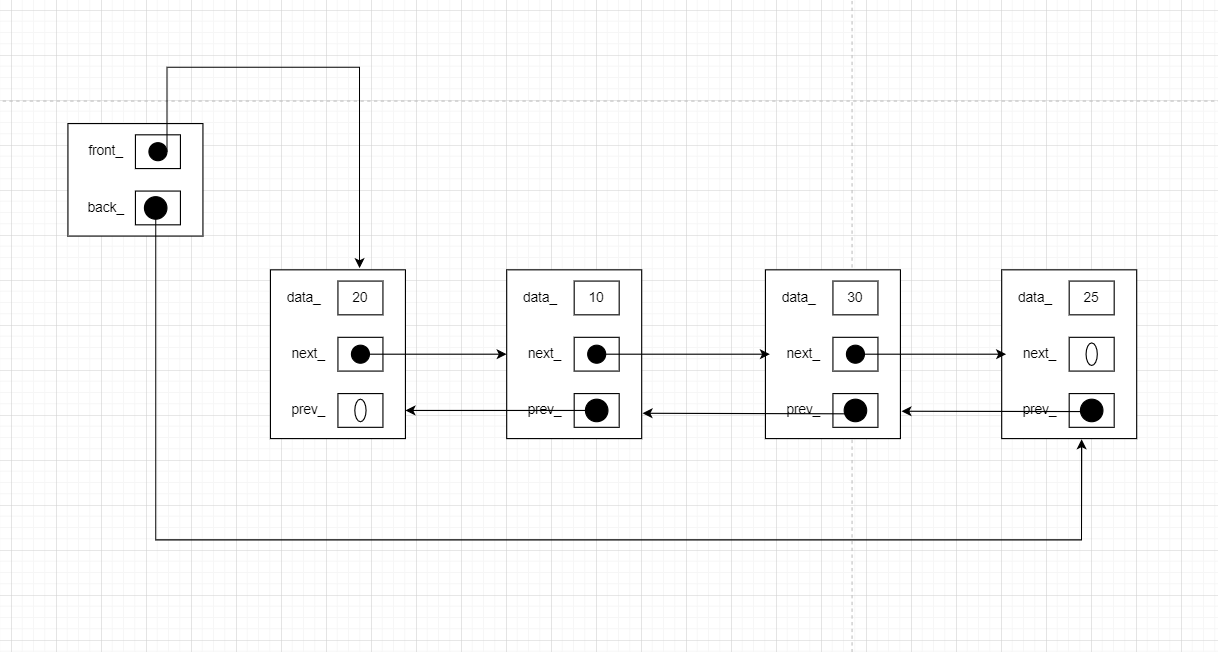
prev\_ 0

data\_ 30

next\_

0

prev\_



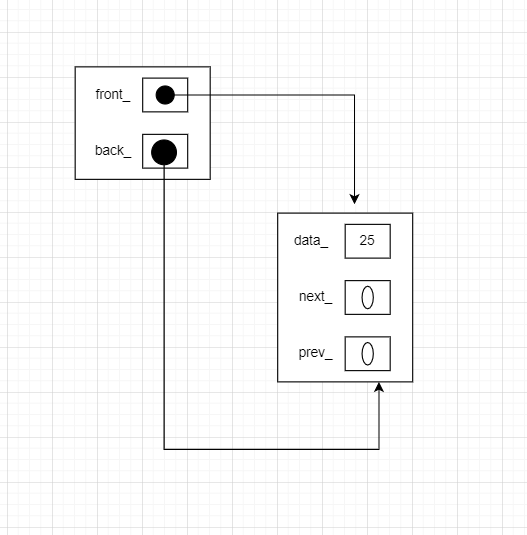
list.insert(end(), 25)

front\_

0

back\_

0



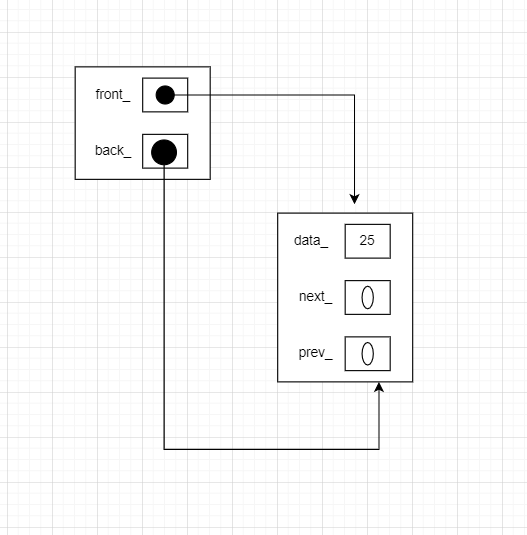
list.insert(begin(), 25)

front\_

0

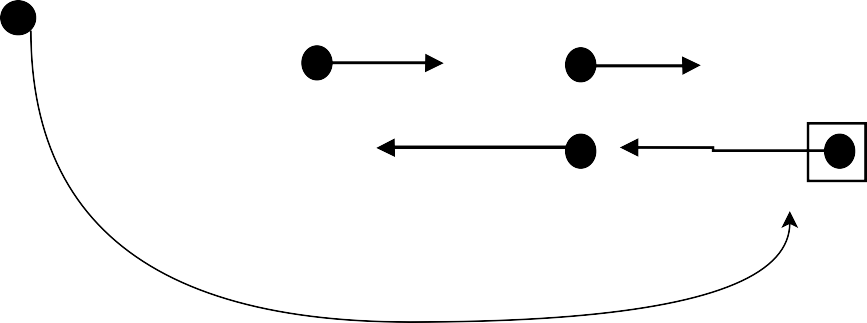
back\_

0



list.erase(loc)

loc



data\_

20

next\_

prev\_ 0

data\_ 30

next\_

0

prev\_



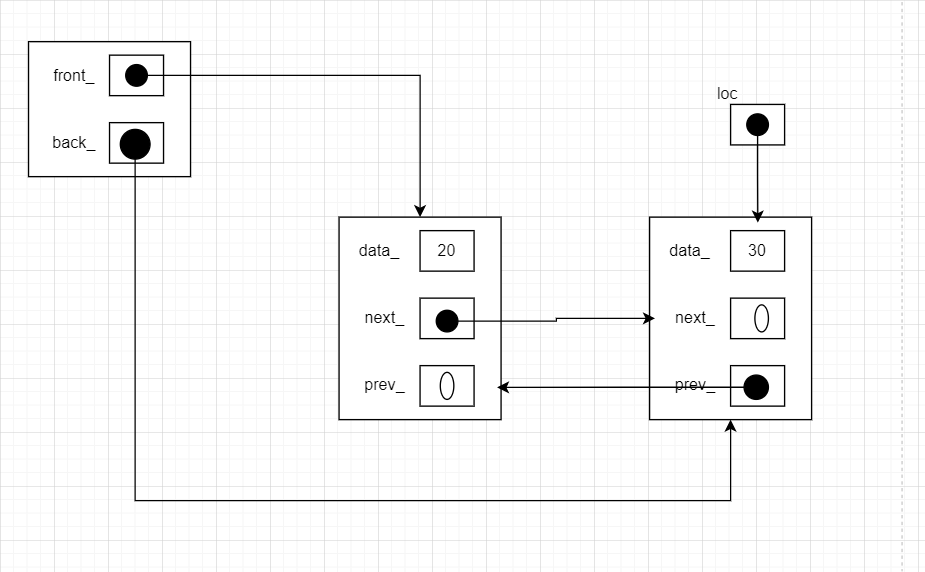
front\_

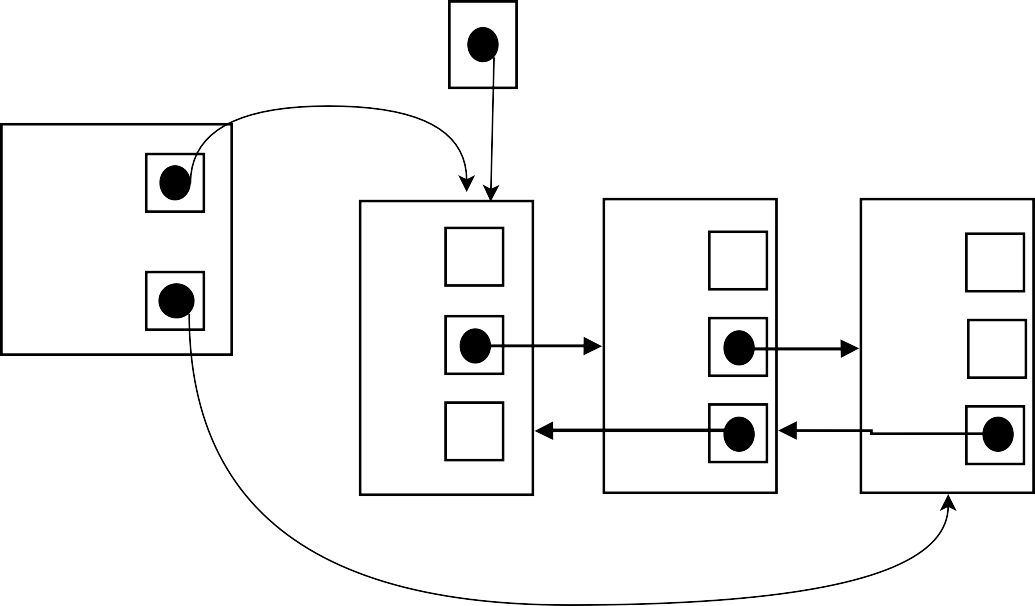
back\_

data\_ 10

next\_

prev\_



list.erase(loc)

loc

front\_

back\_

data\_ 20

next\_ prev\_ 0

data\_

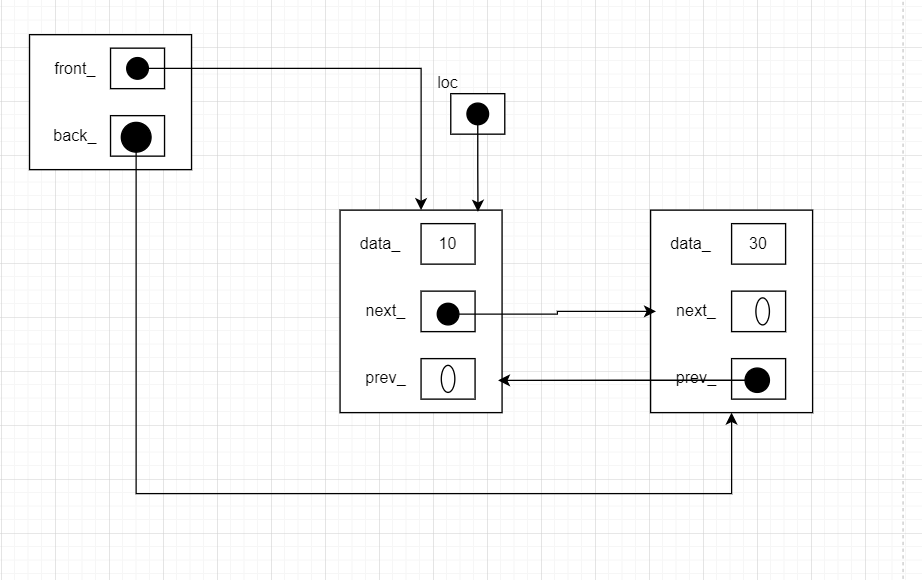
next\_

prev\_

10 data\_ 30

next\_ 0

prev\_



list.erase(loc)

loc



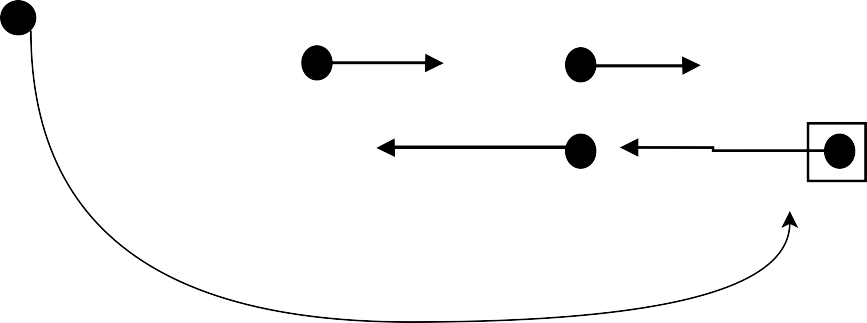
front\_

back\_

data\_ 10

next\_

prev\_



data\_

20

next\_

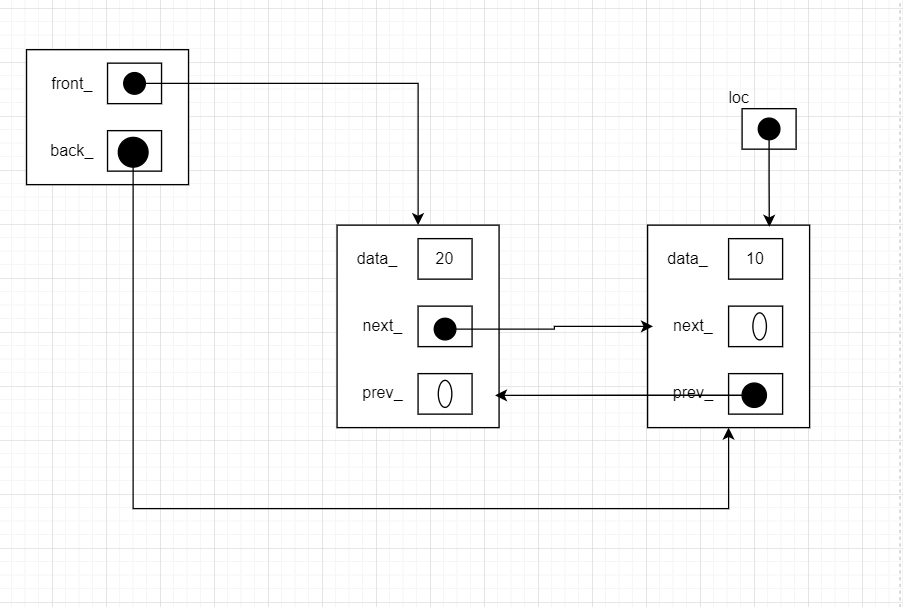
prev\_ 0

data\_ 30

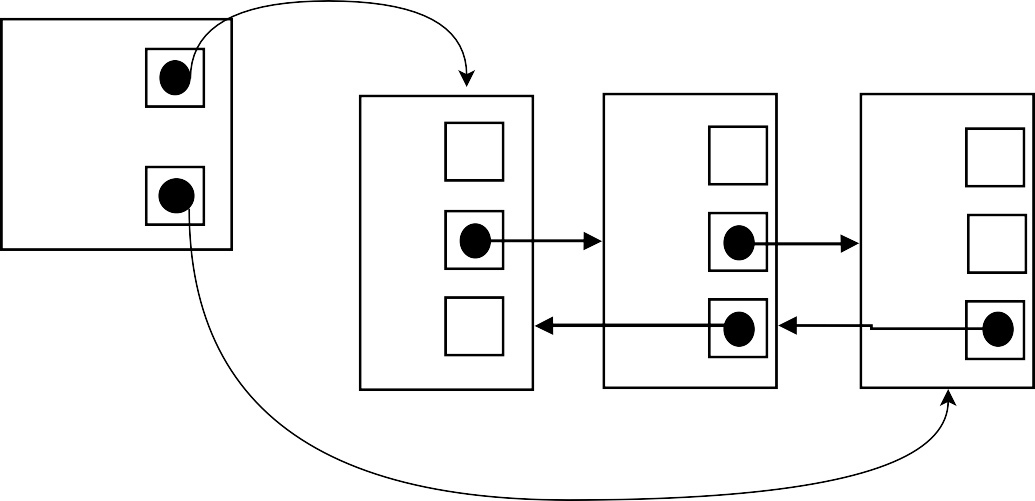
next\_

0

prev\_



list.sort(begin(), end())



front\_

data\_

30

data\_ 20

data\_ 10

back\_

next\_

next\_

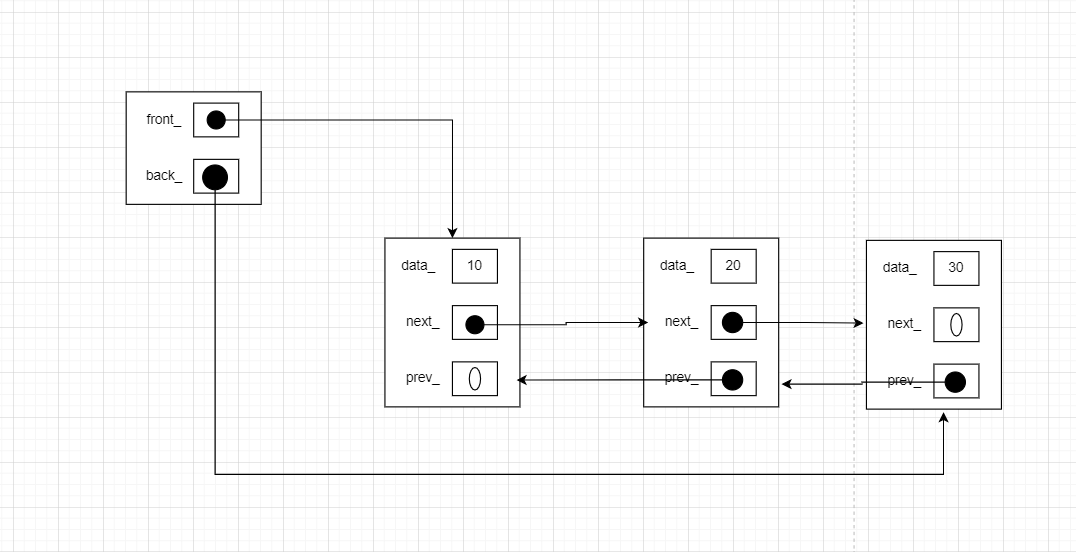
next\_

0

prev\_ 0

prev\_

prev\_



list.sort(begin(), loc)

loc



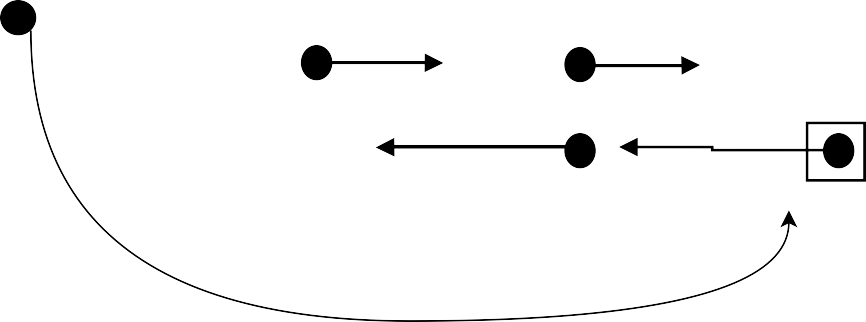
front\_

back\_

data\_ 10

next\_

prev\_



data\_

20

next\_

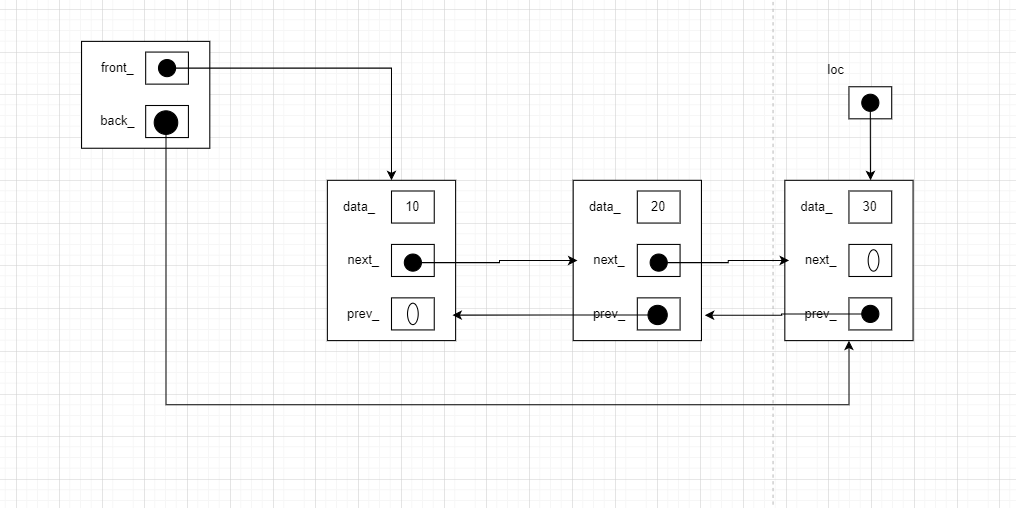
prev\_ 0

data\_ 30

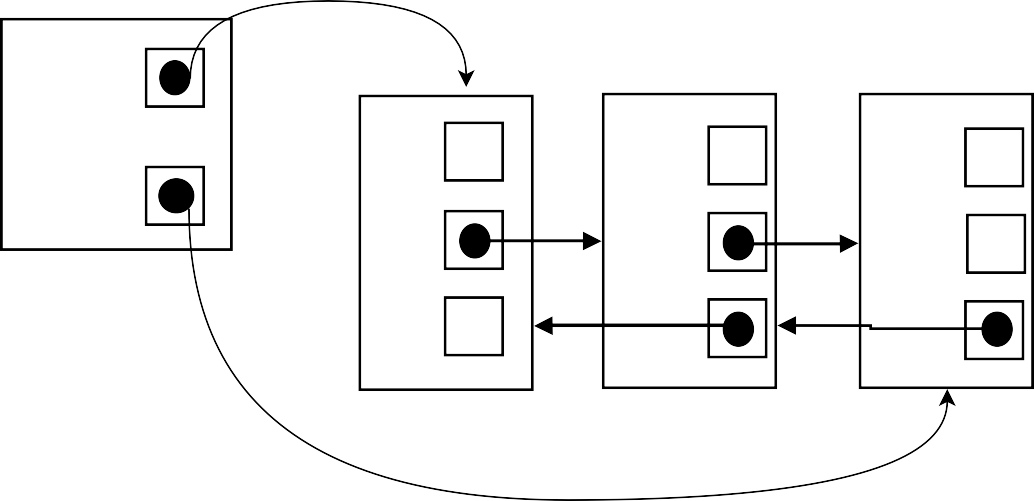
next\_

0

prev\_



copy constructor - alter rhs and/or current object as appropriate



front\_

data\_

20

data\_ 10

data\_ 30

back\_

next\_

next\_

next\_

0

rhs

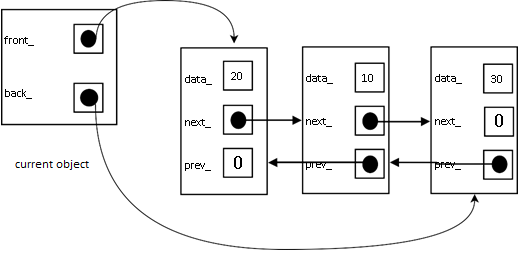
prev\_

0

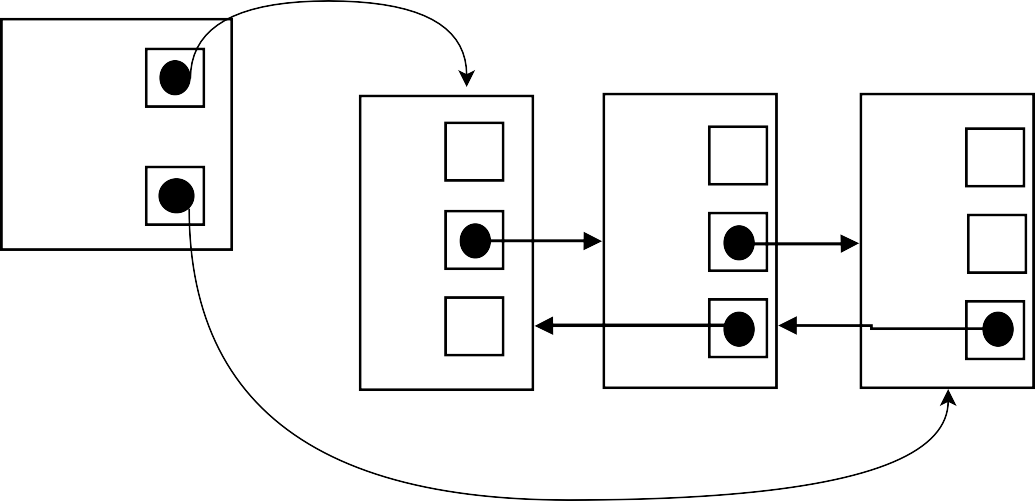
prev\_

prev\_

Current object is initialized with the RHS values



copy assignment operator - alter rhs and/or current object as appropriate



front\_

data\_

20

data\_ 10

data\_ 30

back\_

next\_

next\_

next\_

0

rhs

prev\_

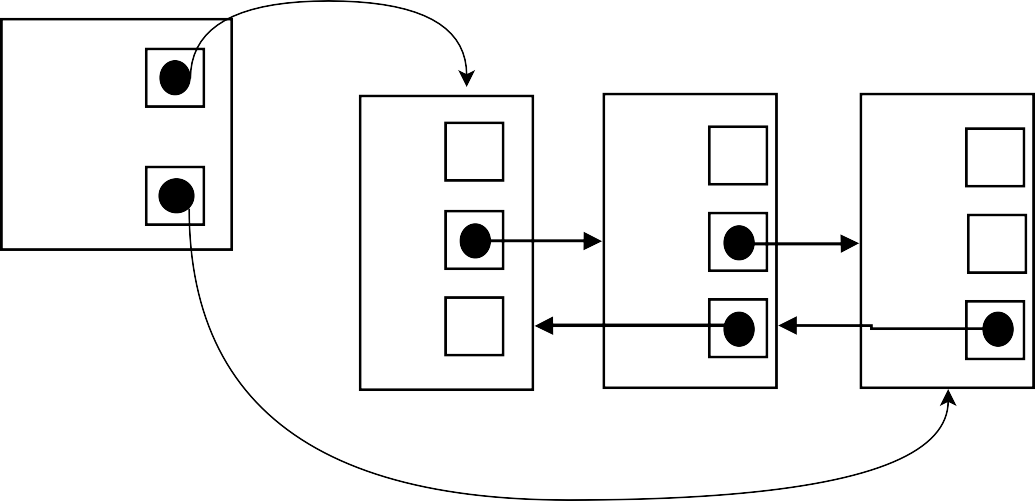
0

prev\_

prev\_

RHS is copied into current object

current object



front\_

data\_

20

data\_ 10

data\_ 30

back\_

next\_

next\_

next\_

0

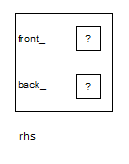
prev\_

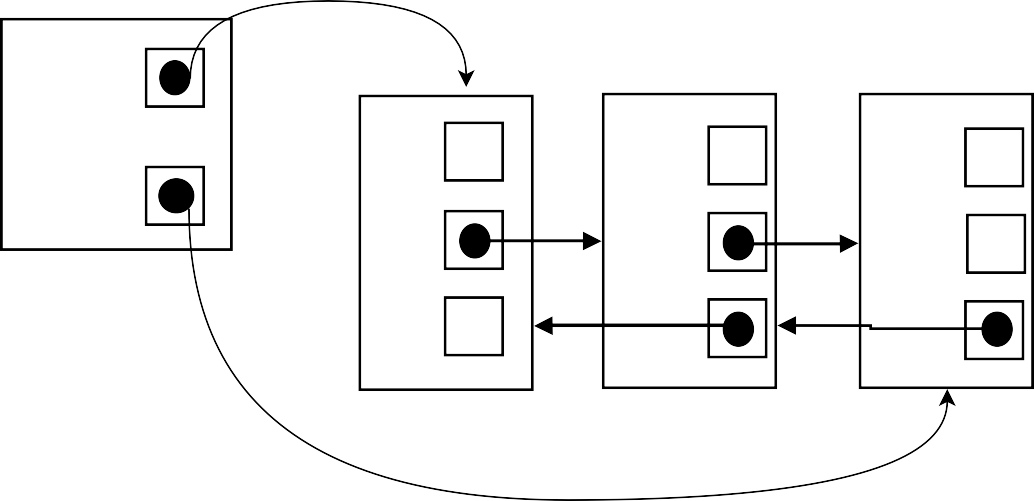
0

prev\_

prev\_

move constructor - alter rhs and/or current object as appropriate





front\_

data\_

20

data\_ 10

data\_ 30

back\_

next\_

next\_

next\_

0

rhs

prev\_

0

prev\_

prev\_



Diagram

Description automatically generated



front\_

?

back\_

?

current object

move assignment operator - alter rhs and/or current object as appropriate



front\_

data\_ 15

back\_

next\_

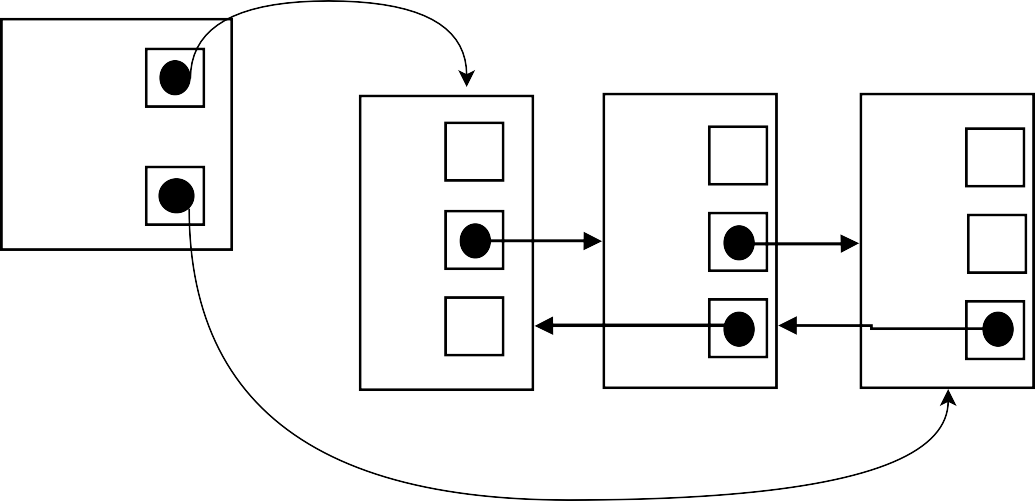
0

current object

prev\_

A picture containing diagram

Description automatically generated



front\_

data\_

20

data\_ 10

data\_ 30

back\_

next\_

next\_

next\_

0

rhs

prev\_

0

prev\_

prev\_



|  |  |  |
| --- | --- | --- |
| data\_  next\_  prev\_ | 5 |  |
| 0 |  |

