STRUKTUR DATA

Circular Linked List

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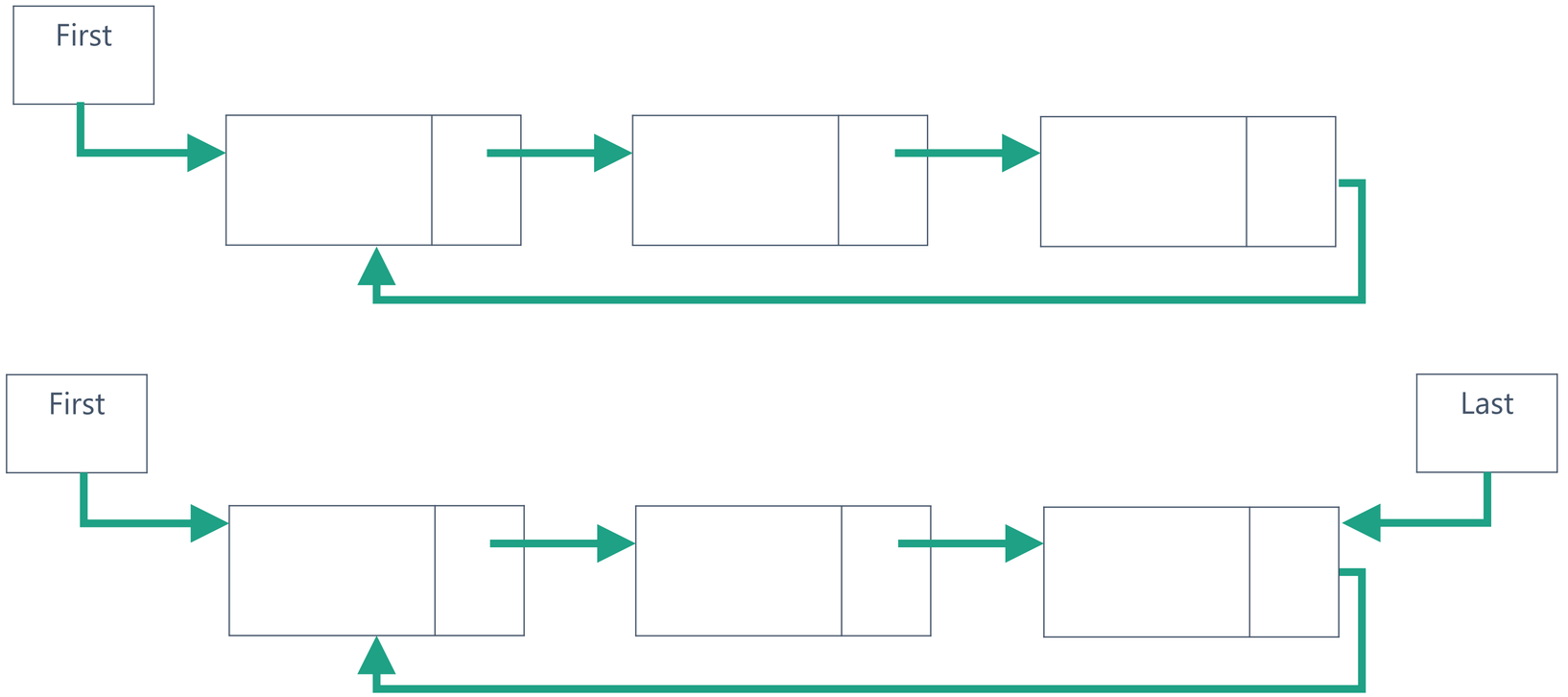
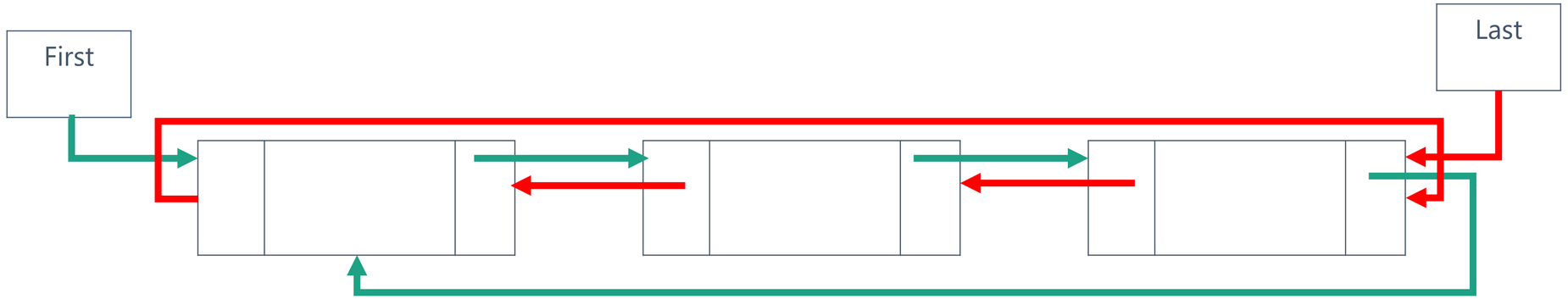
CIRCULAR LINKED LIST

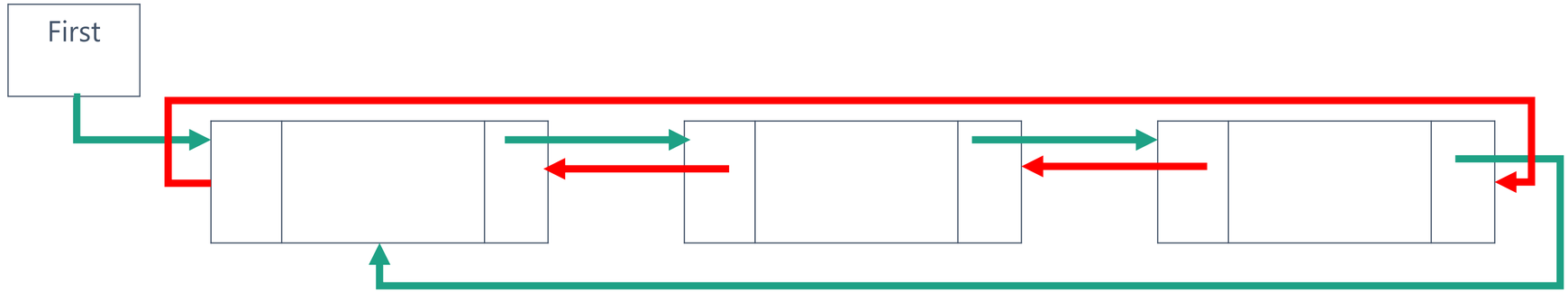
- Pointer pada elemen tidak ada yang bernilai Nil
- Terdapat pointer yang menghubungkan elemen pertama dan elemen terakhir secara langsung

CIRCULAR SINGLE LINKED LIST



CIRCULAR DOUBLE LINKED LIST



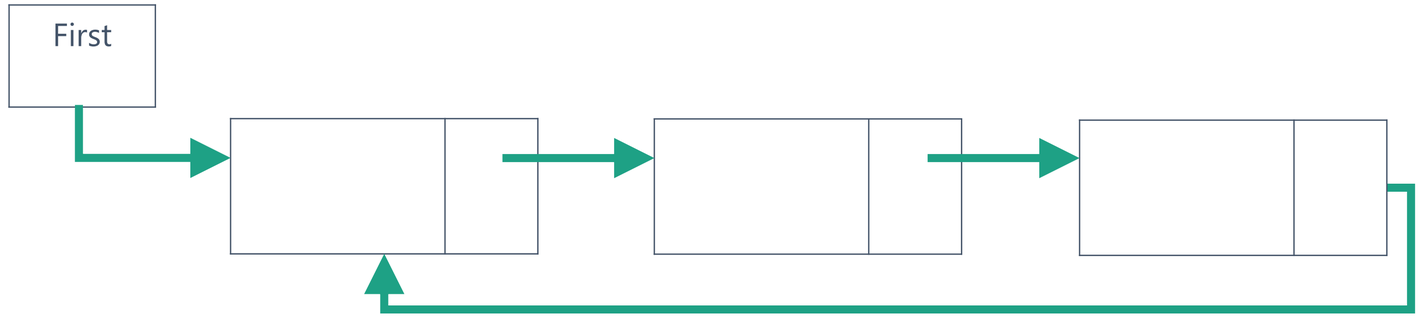


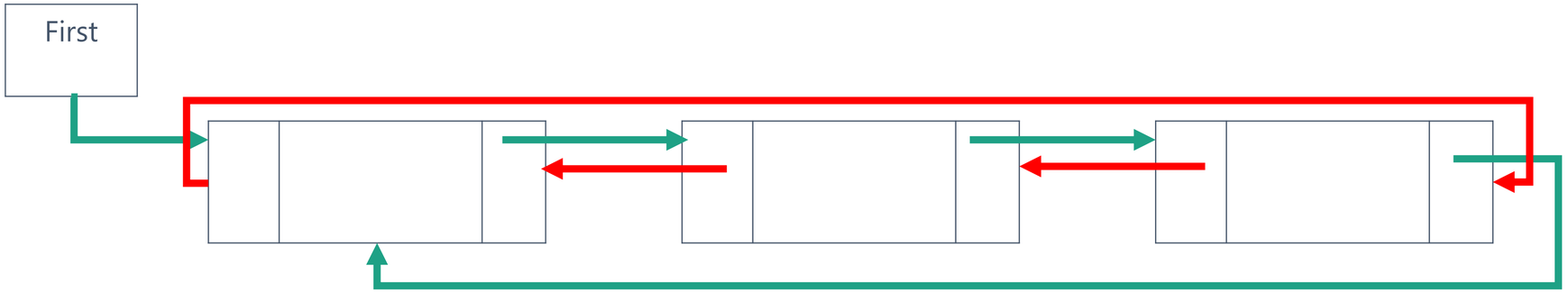
STRUKTUR

- Struktur elemen circular single linked list.

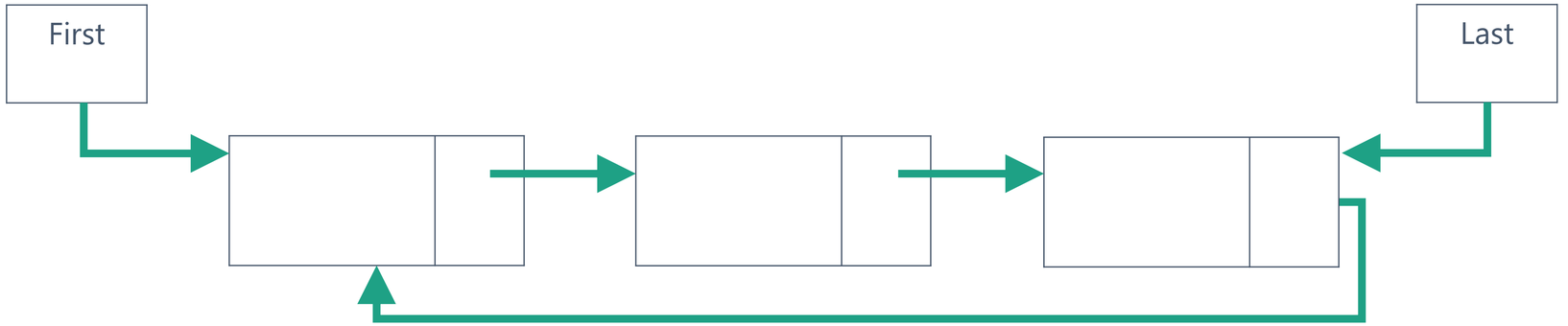
- Struktur elemen circular double linked list.

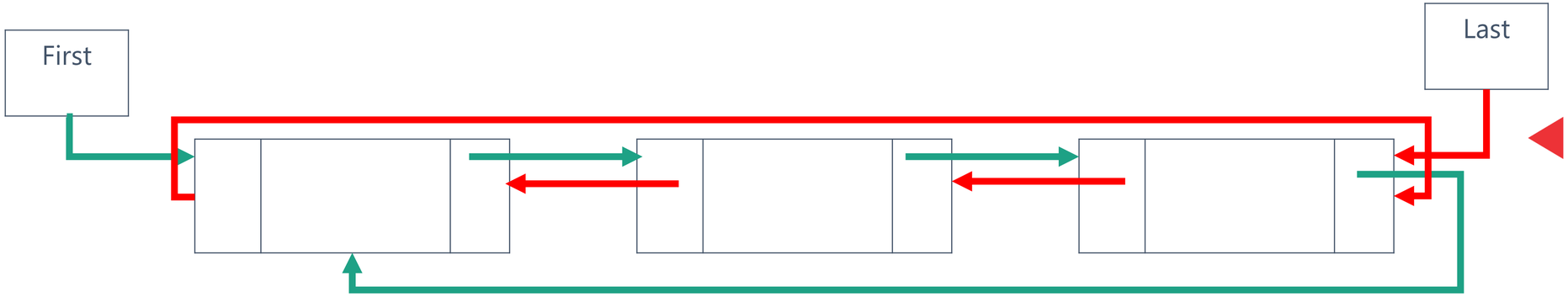
- Circular list dengan satu kepala.





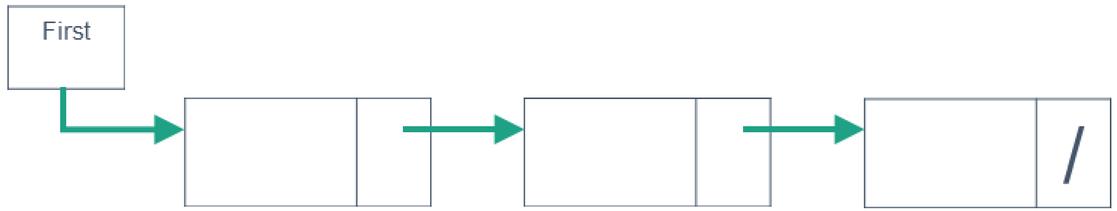
- Circular list dengan dua pointer kepala.

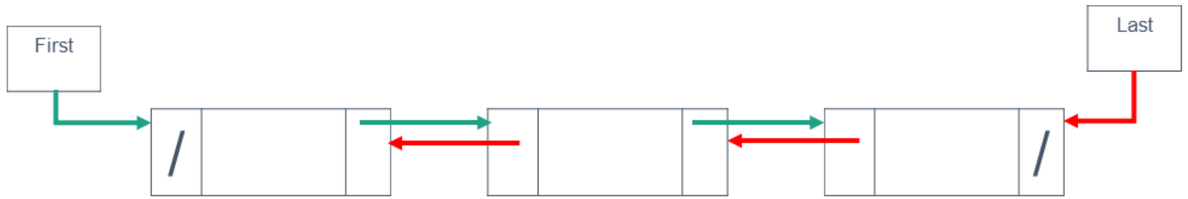




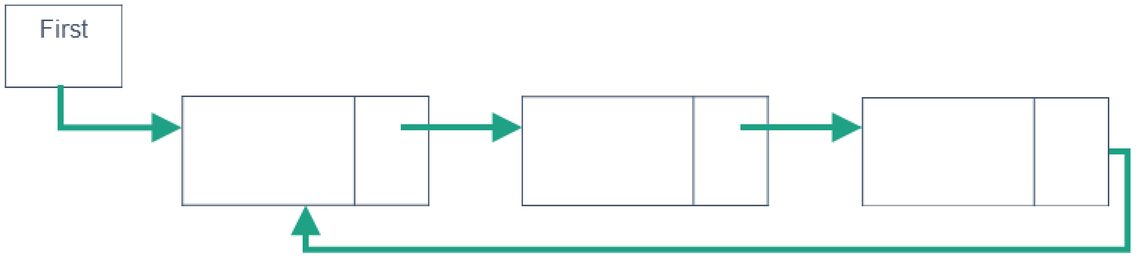
LINEAR VS CIRCULAR LINKED LIST

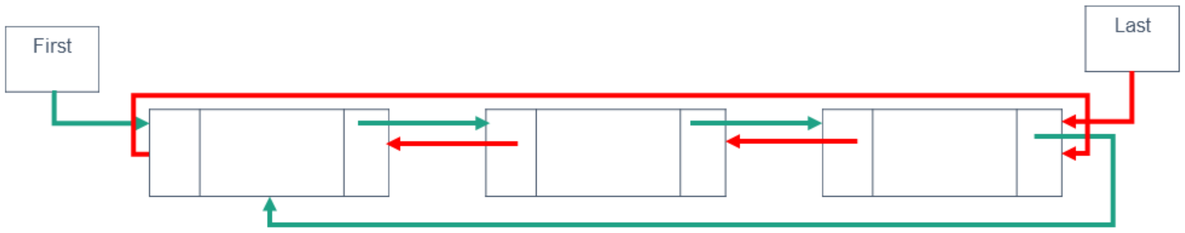
Linear Linked List





Circular Linked List





LINEAR VS CIRCULAR LINKED LIST

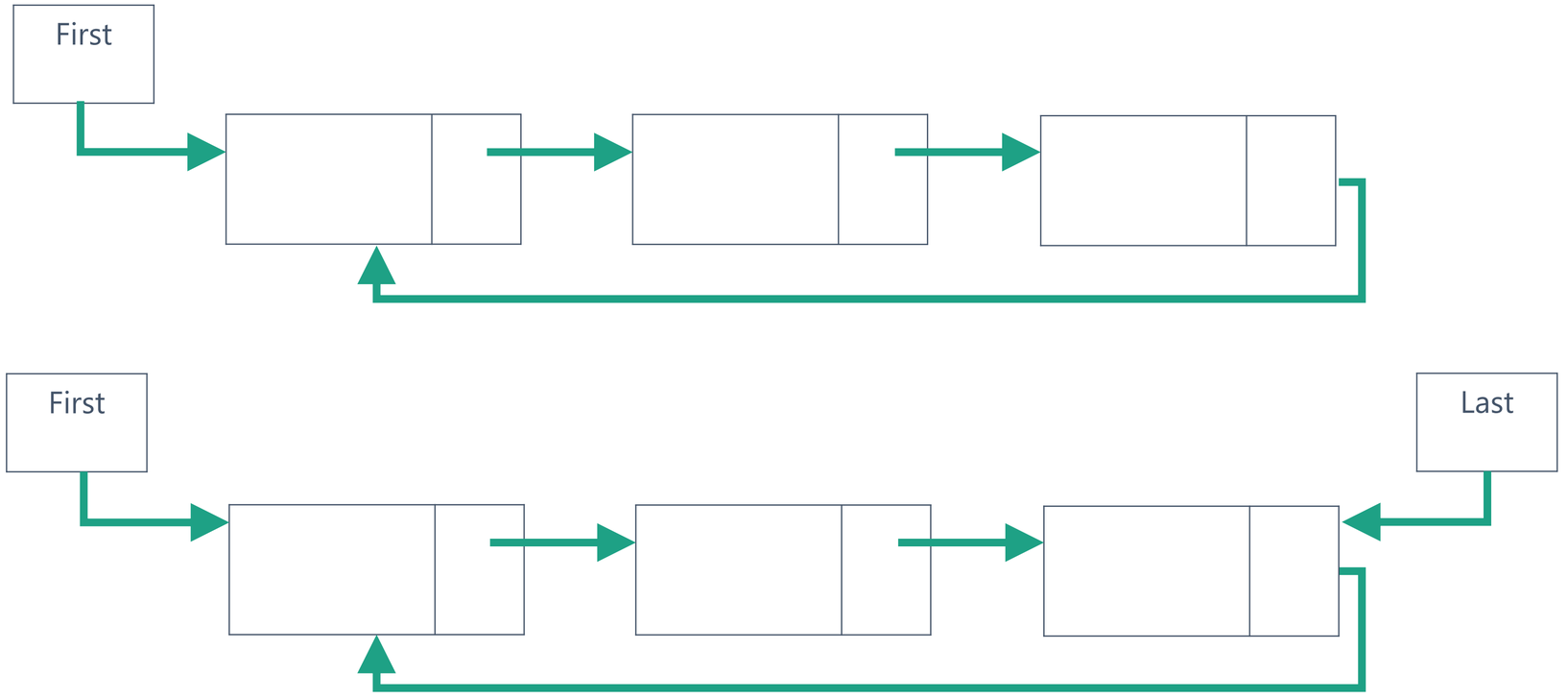
Persamaan

- ADT
- Primitif:
  - Create new list
  - Create new element
  - Insert After
  - Delete After

Perbedaan

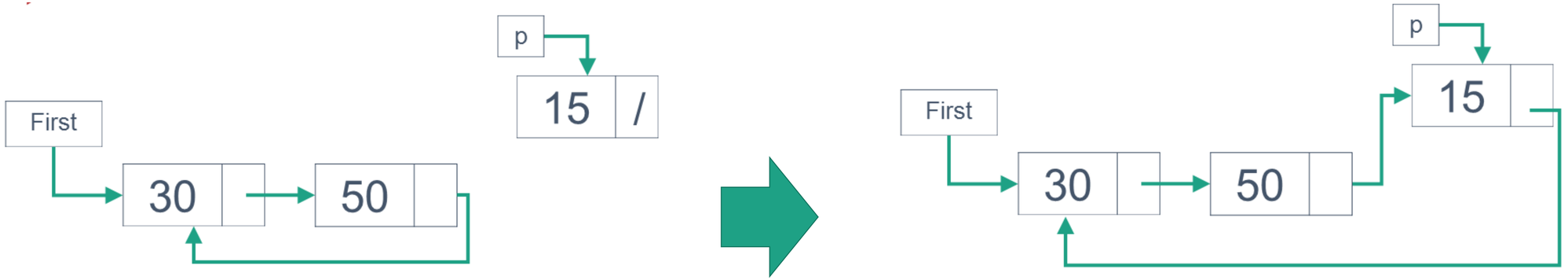
- Primitif:
  - Insert First
  - Insert Last
  - Delete First
  - Delete Last

CIRCULAR SINGLE LINKED LIST

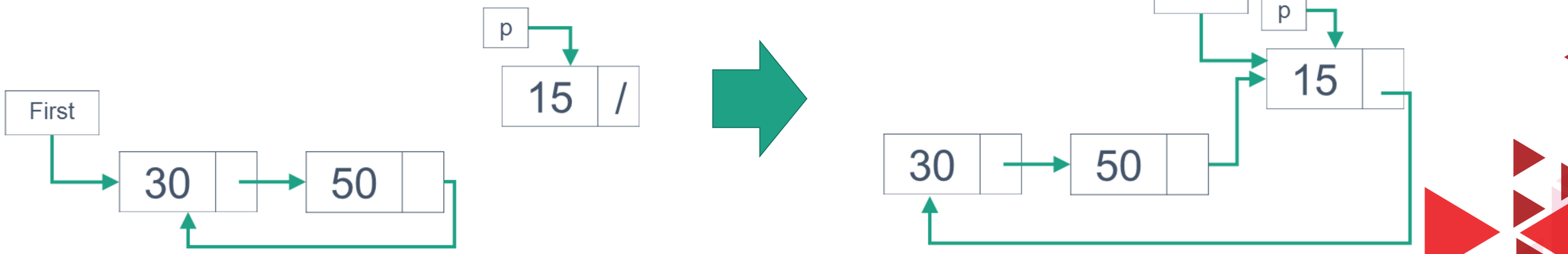


INSERT

Insert Last



Insert First



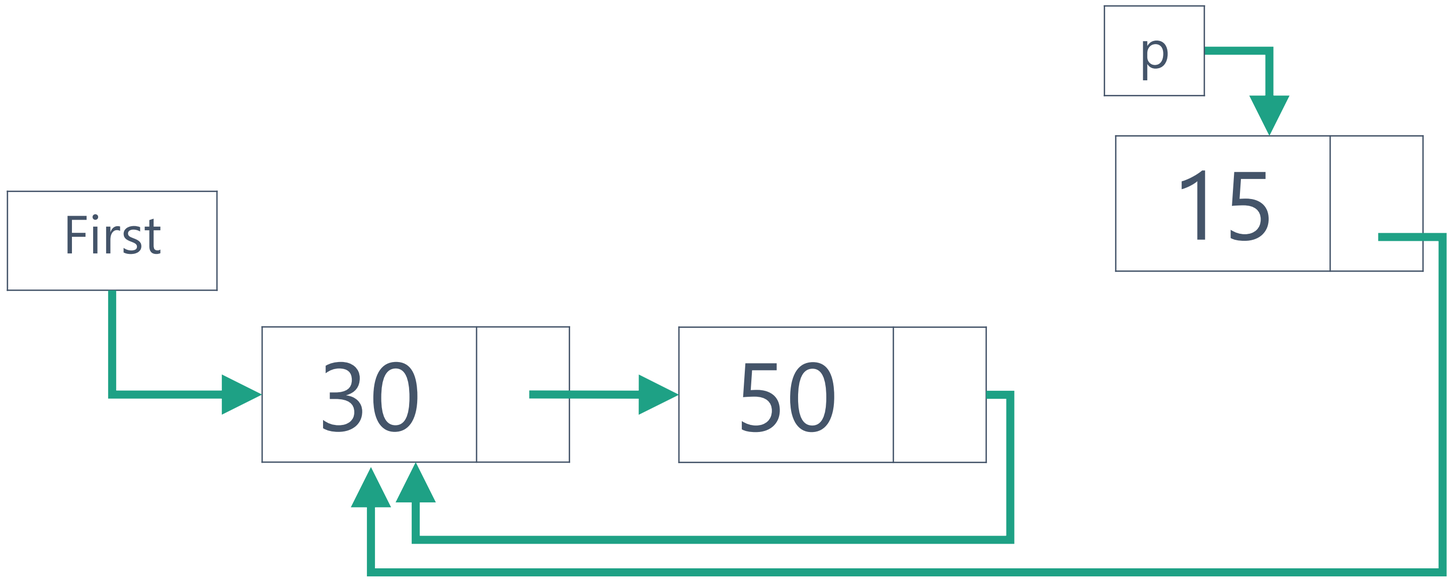
INSERT LAST & INSERT FIRST

INITIAL STATE

Kamus

Algoritma

INSERT LAST & INSERT FIRST



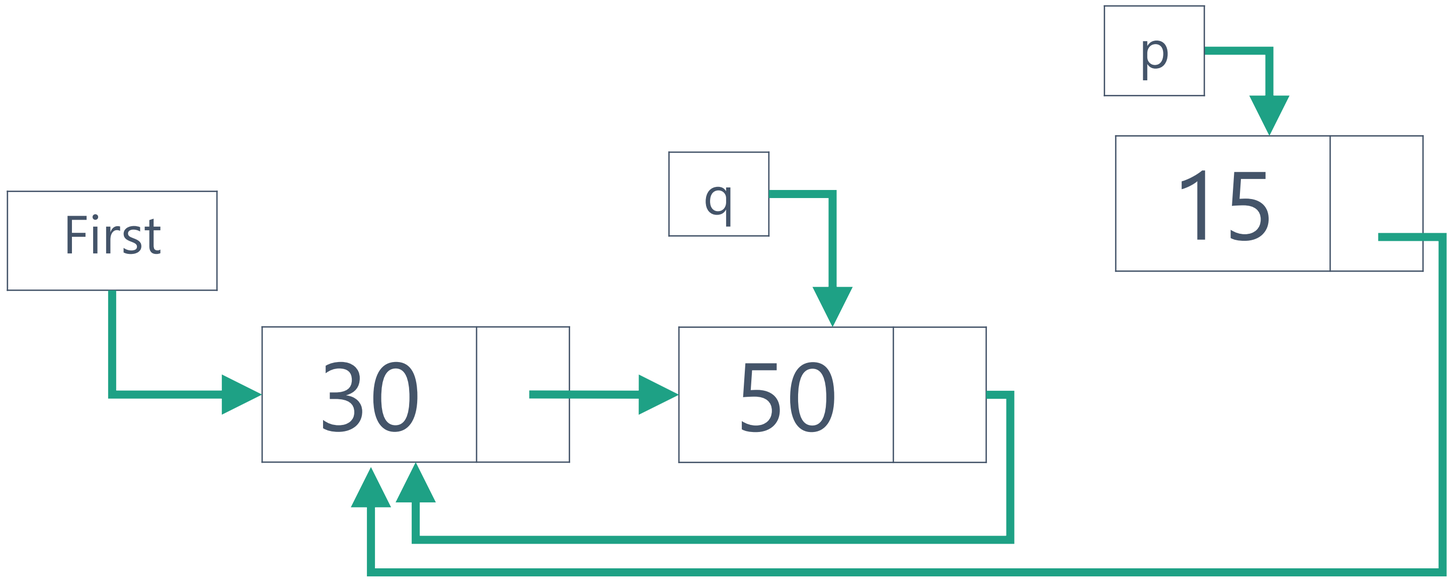
Kamus

q : address

Algoritma

next(p) ← First(L)

INSERT LAST & INSERT FIRST



Kamus

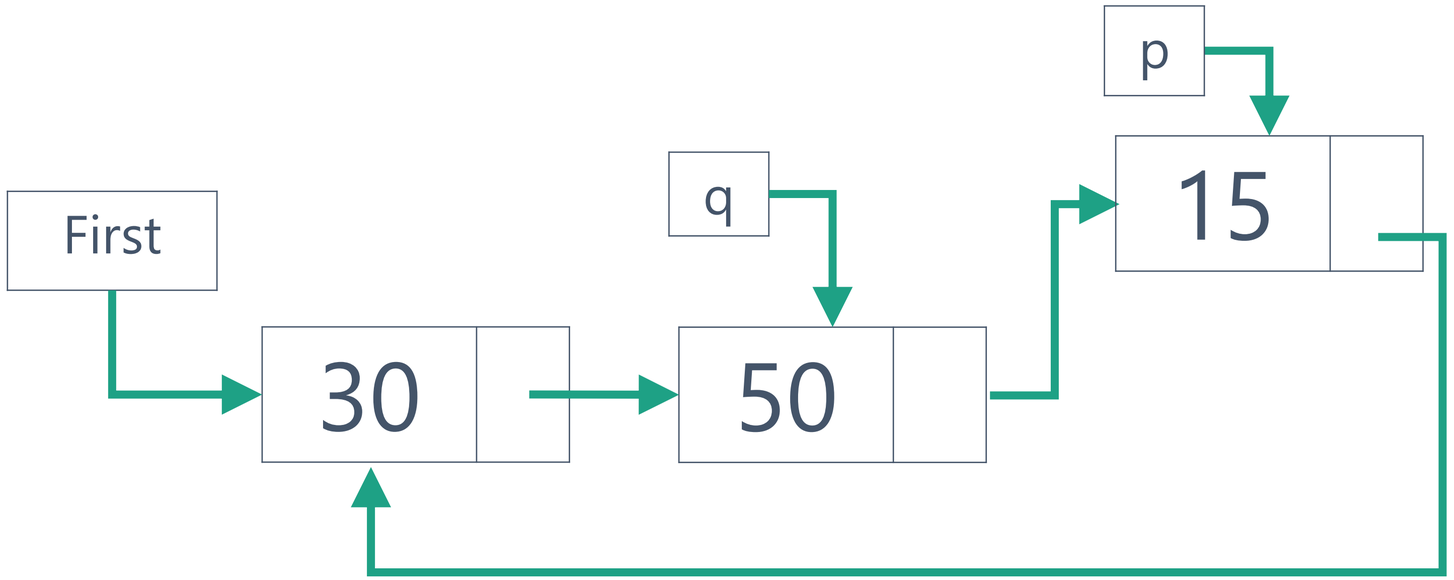
q : address

Algoritma

next(p) ← First(L)

{buat mekanisme agar q menunjuk ke elemen terakhir}

INSERT LAST & INSERT FIRST



Kamus

q : address

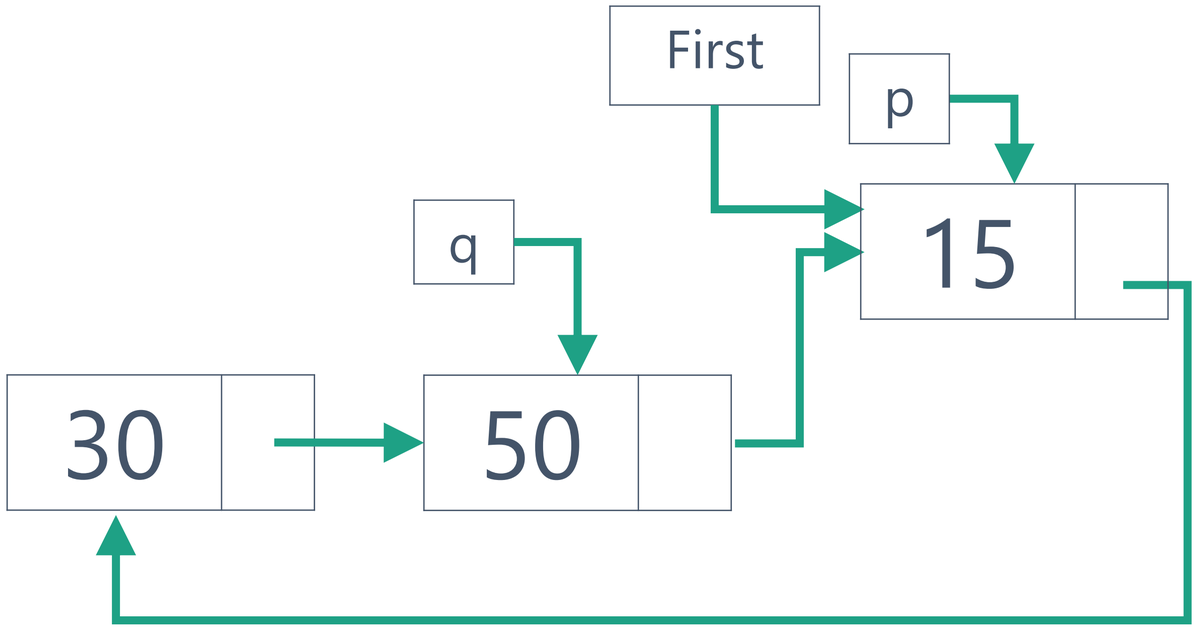
Algoritma

next(p) ← First(L)

{buat mekanisme agar q menunjuk ke elemen terakhir}

next(q) ← p

INSERT FIRST



Kamus

q : address

Algoritma

next(p) ← First(L)

{buat mekanisme agar q menunjuk ke elemen terakhir}

next(q) ← p

First(L) ← p

langkah yang membedakan insert first dengan insert last

INSERT LAST

Procedure InsertLast (In p: address, In/Out L: List)

{ IS: p adalah elemen baru, p≠nil. List L tidak kosong.

FS: Elemen p menjadi elemen terakhir dari list L. }

Kamus

q: address *{pointer untuk menunjuk ke elemen terakhir}*

Algoritma

next(p) ← First(L)

{buat mekanisme agar q menunjuk ke elemen terakhir}

next(q) ← p

HATI-HATI JIKA LIST AWAL KOSONG

INSERT FIRST

Procedure InsertFirst (In p: address, In/Out L: List)

{ IS: p adalah elemen baru, p≠nil. List L tidak kosong.

FS: Elemen p menjadi elemen pertama dari list L. }

Kamus

q: address *{pointer untuk menunjuk ke elemen terakhir}*

Algoritma

next(p) ← First(L)

{buat mekanisme agar q menunjuk ke elemen terakhir}

next(q) ← p

First(L) ← p

HATI-HATI JIKA LIST AWAL KOSONG

INSERT PADA LIST KOSONG

Kamus

Algoritma

First(L) ← p

next(p) ← First(L)

circular

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https://drive.google.com/drive/folders/1l09Oyj8pNrUU-mhz5auC_UlskuS4Zf1D?usp=sharing

IMPLEMENTASI

- Penjadwalan *Round Robin*
- Pengaturan giliran pemain dalam permainan multiplayer
- Music player → playlist lagu

TERIMA KASIH