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Matkul: Algoritma dan Struktur Data

Alternative 1

- 1. Write the algorithm of queue mechanism using
 - Single linked list
 - Array alternative 1
 - Array alternative 2
 - Array alternative 3
- 2. Use the same infotype as before
- 3. Each member is to write 1 mechanism

Jawab:

- · Single linked list
 - Algoritma:
 - Simpan 2 reference: front → ... → back
 □ enqueue(Benda x):
 - ❖ Buat sebuah node baru N yang datanya x
 - ❖ if queue sebelumnya empty, maka front = back = N
 - else tambahkan N di akhir (dan update back)
 - dequeue():
 - ❖ Hapus elemen pertama: front = front.next
- · Array alternative 1

Algoritma:

riigoriima .
Add(P,3)
Add(P,4)
Add(P,2)
Del(P)
Del(P)
Add(P,5)
Del(P)
Del(P)

1	2	3	4	5
3	4	2		

Head = 1					
Tail $= 3$					
Is $empty = True$					
1	2	3	4	5	
2					
Head = 1					
Tail $= 0$					
Is $empty = True$					
1	2	3	4	5	
5	2				
Head $= 1$					
Tail $= 2$					
Is $empty = True$					
1	2	3	4	5	
1	2		'	3	
Head = 0	<u> </u>				
Tail $= 0$					
Is empty = False					
is empty – raise					
· Array Alternative	e 2				
Algoritma:	<i> </i>				
Add(P,3)					
Add(P,4)					
Add(P,2)					
Del(P)					
Del(P)					
Add(P,5)					
Del(P)					
Add(P,6)					
Add(P,7)					
Del(P)					
Del(P)					
Del(P)					
. /					
1	2	3	4	5	
3	4	2	4	3	
	4	<u> </u>			
Head = 1					
Tail = 3					
Is empty = True	2	2	4	<i>E</i>	
1	2	3	4	5	
2					
Head $= 1$					
Tail $= 0$					
Is empty = True					
1	2	3	4	5	

5	2			
Head = 1				
Tail $= 2$				
Is $empty = True$				
1	2	3	4	5
2				
Head = 1				
Tail $= 0$				
Is empty = True				
1	2	3	4	5
7	6	2		
Head = 1		_		
Tail $= 3$				
Is $empty = True$				
1 1	2	3	4	5
1	2	3	+	3
Head $= 0$	L			
Tail $= 0$				
Is $= 0$ Is $= -0$				
is empty – I also				
Add(P,3) Add(P,4) Add(P,2) Del(P) Del(P) Add(P,5) Del(P) Add(P,6) Add(P,7) Add(P,8) Del(P) Del(P) Del(P) Del(P) Del(P)				
DUI(1)				
1	2	3	4	5
3	4	2	'	
Head = 1 $Tail = 3$ $Is empty = True$	<u> </u>		l	l
1s empty = True	2	3	4	5
2	<u> </u>	<i>J</i>	+	<i>J</i>
	I			

Head = 1						
Tail $= 0$	Tail $= 0$					
Is $empty = True$	Is empty = True					
1	2	3	4	5		
5	2					
Head $= 1$						
Tail $= 2$						
Is $empty = True$						
1	2	3	4	5		
2						
Head = 1						
Tail $= 0$						
Is $empty = True$	Is empty = True					
1	2	3	4	5		
8	7	6	2			
Head = 1						
Tail $= 3$						
Is empty = True						
1	2	3	4	5		

Head = 0

Tail = 0

Is empty = False