

"BANKER'S ALGO"

Total A=10, B=5, C=7

Deadlock Avoidance.
Deadlock Detection.

Process	Allocation			Max Need			Available			Remaining Need		
	A	B	C	A	B	C	A	B	C	A	B	C
P ₁	0	1	0	7	5	3						
P ₂	2	0	0	3	2	2						
P ₃	3	0	2	9	0	2						
P ₄	2	1	1	4	2	2						
P ₅	0	0	2	5	3	3						

"BANKER'S Algo"

Total A=10, B=5, C=7
~~7~~ ~~2~~ ~~5~~

Deadlock Avoidance.
 Deadlock Detection.

PV Allocation		Max Need	Available			Remaining Need		
B	C		A	B	C	A	B	C
		5 3						
		3 2 2						
0	2	9 0 2						
1	1	4 2 2						
0	2	5 3 3						
2	5							

Safe Sequence.
 Unsafe.

L-4.5: Deadlock Avoidance Banker's Algorithm with Example | With English Subtitles

BANKER'S Algo

Total A=10, B=5, C=1
 Current: $\frac{-7}{3}$ $\frac{-2}{3}$ $\frac{5}{2}$

Deadlock Avoidance
 Deadlock Detection

Process	CPU Allocation	Memory Allocation	Printer	Max Need
	A	B	C	A B C
P ₁	0	1	0	7 5 3
P ₂	2	0	0	3 2 2
P ₃	3	0	0	9 0 2
P ₄	2	0	1	4 2 2
P ₅	0	0	2	5 3 3
	2	5		

Available =

Remaining Need = Max-Allocation

A B C
 3 3 2
 5

A B C
 7 4 3 P₁
 1 2 2 P₂ ✓
 6 0 0 P₃
 2 1 1 P₄
 5 3 1 P₅

Safe Sequence
 Unsafe

P₂

"BANKER'S Algo"

Total A=10, B=5, C=7

Deadlock Avoidance.
Deadlock Detection.

P _i	Memory Allocation	Pointer Max Need	Current: Available			Remaining Need = Max-Allocation		
			A	B	C	A	B	C
0	7	5	3	3	2			
0	3	2	5	3	2			
2	9	0	7	4	3	6	0	0
1	4	2	7	4	5			
2	5	3	7	5	5			

Safe Sequence:
Unsafe.

P₂ ↓
P₄ ↓
P₅ ↓
P₁