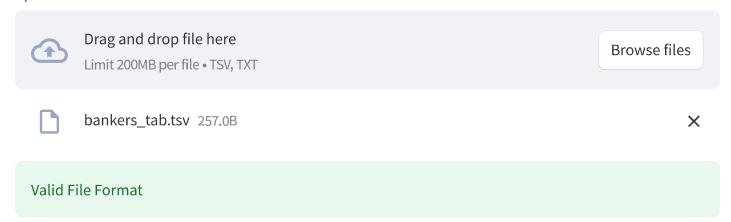
# **Banker's Algorithm Simulator**

Upload a TSV file



#### Step 0:

	Process		catio	n	Nee	d	Finish	
0	P0	0	1	0	7	4	3	
1	P1	2	0	0	1	2	2	
2	P2	3	0	2	6	0	0	
3	P3	2	1	1	0	1	1	
4	P4	0	0	2	4	3	1	

**Available (Work):** [3, 3, 2]

#### Step 1:

	Process	Allo	Allocation			Need			
0	P0	0	1	0	7	4	3		
1	P1	2	0	0	1	2	2	$\vee$	
2	P2	3	0	2	6	0	0		
3	P3	2	1	1	0	1	1		
4	P4	0	0	2	4	3	1		

**Available (Work):** [5, 3, 2]

## Step 2:

	Process		catio	n	Nee	d	Finish	
0	P0	0	1	0	7	4	3	
1	P1	2	0	0	1	2	2	$\vee$
2	P2	3	0	2	6	0	0	
3	P3	2	1	1	0	1	1	$\checkmark$
4	P4	0	0	2	4	3	1	

**Available (Work):** [7, 4, 3]

## Step 3:

	Process	Allocation			Nee	Finish		
0	P0	0	1	0	7	4	3	$\overline{\mathcal{A}}$
1	P1	2	0	0	1	2	2	$\vee$
2	P2	3	0	2	6	0	0	
3	P3	2	1	1	0	1	1	W
4	P4	0	0	2	4	3	1	

**Available (Work):** [7, 5, 3]

## Step 4:

	Process	Allo	catio	n	Nee	Finish		
0	P0	0	1	0	7	4	3	$\vee$
1	P1	2	0	0	1	2	2	$\vee$
2	P2	3	0	2	6	0	0	$\sim$
3	P3	2	1	1	0	1	1	$\vee$
4	P4	0	0	2	4	3	1	

**Available (Work):** [10, 5, 5]

#### Step 5:

	Process	Allo	catio	n	Nee	Finish		
0	0 P0	0	1	0	7	4	3	$\vee$
1	P1	2	0	0	1	2	2	V
2	P2	3	0	2	6	0	0	$\checkmark$
3	P3	2	1	1	0	1	1	V
4	P4	0	0	2	4	3	1	4

**Available (Work):** [10, 5, 7]

System is in a safe state. Safe sequence: ['P1', 'P3', 'P0', 'P2', 'P4']

#### All Possible Safe Sequences:

1: ['P1', 'P3', 'P0', 'P2', 'P4']

2: ['P1', 'P3', 'P0', 'P4', 'P2']

3: ['P1', 'P3', 'P2', 'P0', 'P4']

4: ['P1', 'P3', 'P2', 'P4', 'P0']

5: ['P1', 'P3', 'P4', 'P0', 'P2']

6: ['P1', 'P3', 'P4', 'P2', 'P0']

7: ['P1', 'P4', 'P3', 'P0', 'P2']

8: ['P1', 'P4', 'P3', 'P2', 'P0']

9: ['P3', 'P1', 'P0', 'P2', 'P4']

10: ['P3', 'P1', 'P0', 'P4', 'P2']

11: ['P3', 'P1', 'P2', 'P0', 'P4']

12: ['P3', 'P1', 'P2', 'P4', 'P0']

13: ['P3', 'P1', 'P4', 'P0', 'P2']

14: ['P3', 'P1', 'P4', 'P2', 'P0']

15: ['P3', 'P4', 'P1', 'P0', 'P2']

16: ['P3', 'P4', 'P1', 'P2', 'P0']