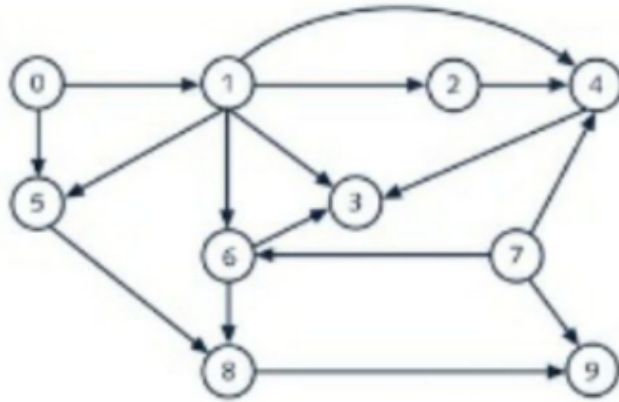


9. List the nodes of the graph in a breadth first topological ordering. Show the steps using arrays predCount, topologicalOrder and a queue



#1

predCount[]

0	1	2	3	4	5	6	7	8	9
0	1	1	3	3	2	2	0	2	2

Queue

0	7			
---	---	--	--	--

Sort

0									
---	--	--	--	--	--	--	--	--	--

predCount[1] = predcount[1] - 1

predCount[5] = predcount[5] + 1

#2

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	1	3	3	1	2	0	2	2

Queue

7	1			
---	---	--	--	--

Sort

0	7								
---	---	--	--	--	--	--	--	--	--

Next in line = 4, 6, 9

#3

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	1	3	2	1	1	0	2	1

Queue

1									
---	--	--	--	--	--	--	--	--	--

Sort

0	7	1							
---	---	---	--	--	--	--	--	--	--

Next in line = 2,3,4,5,6

#4

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	2	1	0	0	0	2	1

Queue

2	5	6							
---	---	---	--	--	--	--	--	--	--

Sort

0	7	1	2						
---	---	---	---	--	--	--	--	--	--

Next in line = 4

#5

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	2	0	0	0	0	2	1

Queue

5	6	4							
---	---	---	--	--	--	--	--	--	--

Sort

0	7	1	2	5					
---	---	---	---	---	--	--	--	--	--

Next in line = 8

#6

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	2	0	0	0	0	1	1

Queue

6	4								
---	---	--	--	--	--	--	--	--	--

Sort

0	7	1	2	5	6				
---	---	---	---	---	---	--	--	--	--

Next in line = 3,8

#7

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	1	0	0	0	0	0	1

Queue

4	8			
---	---	--	--	--

Sort

0	7	1	2	5	6	4			
---	---	---	---	---	---	---	--	--	--

Next in line = 8

#8

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	1

Queue

8	3			
---	---	--	--	--

Sort

0	7	1	2	5	6	4	8		
---	---	---	---	---	---	---	---	--	--

Next in line = 9

#9

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0

Queue

3	9			
---	---	--	--	--

Sort

0	7	1	2	5	6	4	8	3	
---	---	---	---	---	---	---	---	---	--

#10

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0

Queue

9				
---	--	--	--	--

Sort

0	7	1	2	5	6	4	8	3	9
---	---	---	---	---	---	---	---	---	---

**Finished**

predCount[]

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0

Queue

--	--	--	--	--

Sort

0	7	1	2	5	6	4	8	3	9
---	---	---	---	---	---	---	---	---	---