

Name: Mohammad Bilal

ID: 14956

Program: BS(CS)

Subject: Design & Analysis of Algorithm

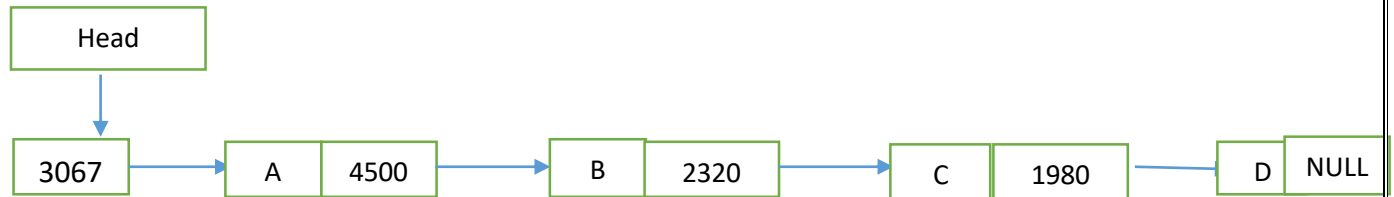
Answer 1:

A linked list is a list whose elements may not occupy continuous memory locations and whose elements are connected by means of links between them.

OR

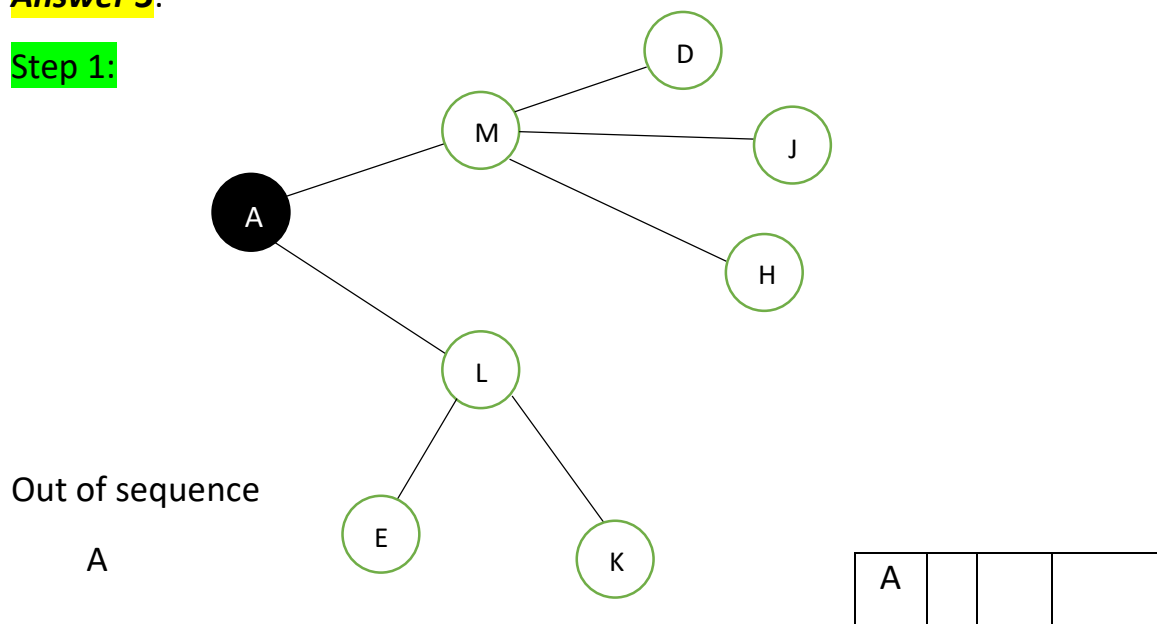
A list implemented by each item having a link to the next item.

Answer 2:

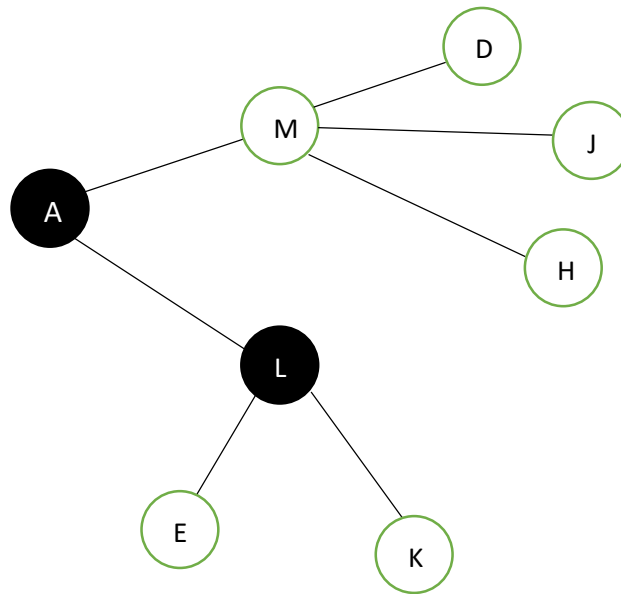


Answer 3:

Step 1:



Step 2:

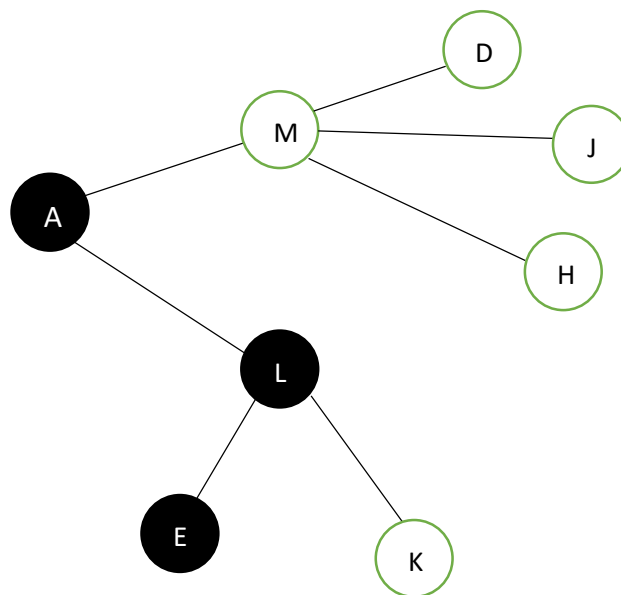


A	L		
---	---	--	--

Out of sequence

A, L

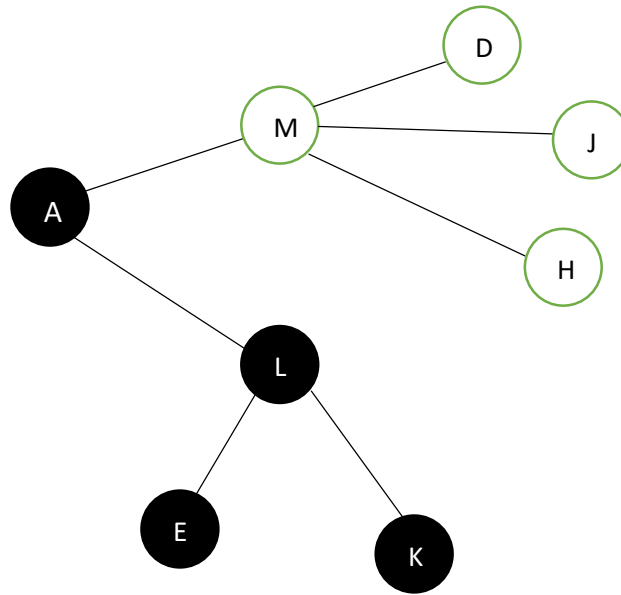
Step 3:



A	L	E	
---	---	---	--

Out of sequence: A, L, E

Step 4:

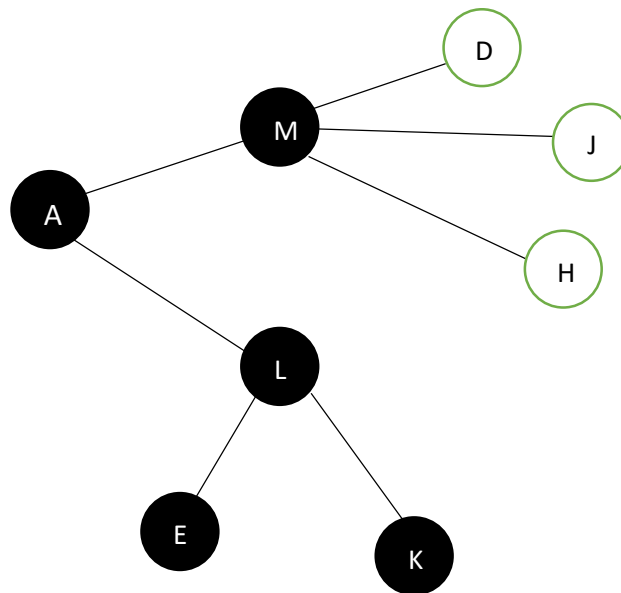


A	L	E k	
---	---	----------------	--

Out of sequence

A, L, E, K

Step 5:

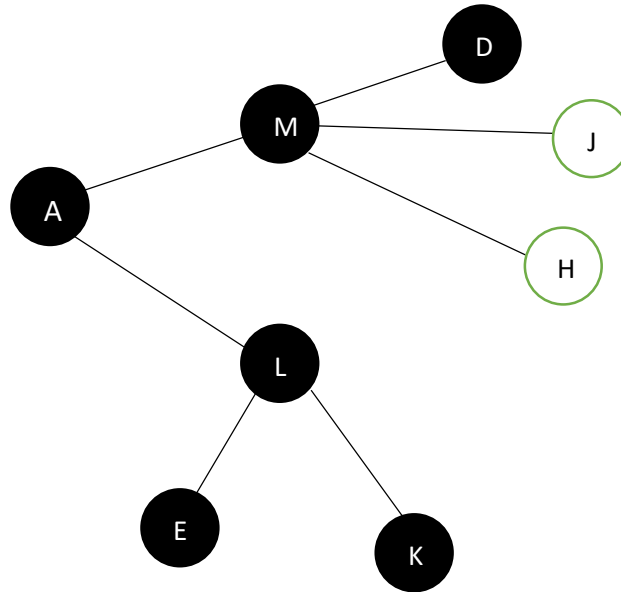


A	L	K M	
---	---	----------------	--

Out of sequence

A, L, E, K, M

Step 6:

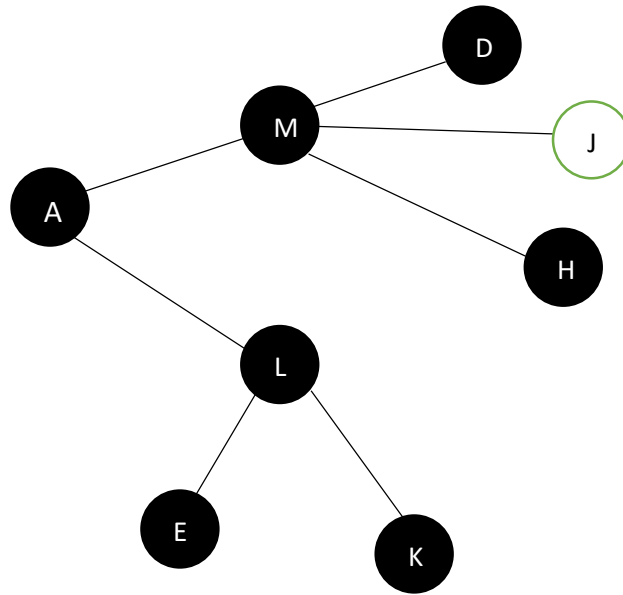


A	L	M	D	
---	---	---	---	--

Out of sequence

A, L, E, K, M, D

Step 7:

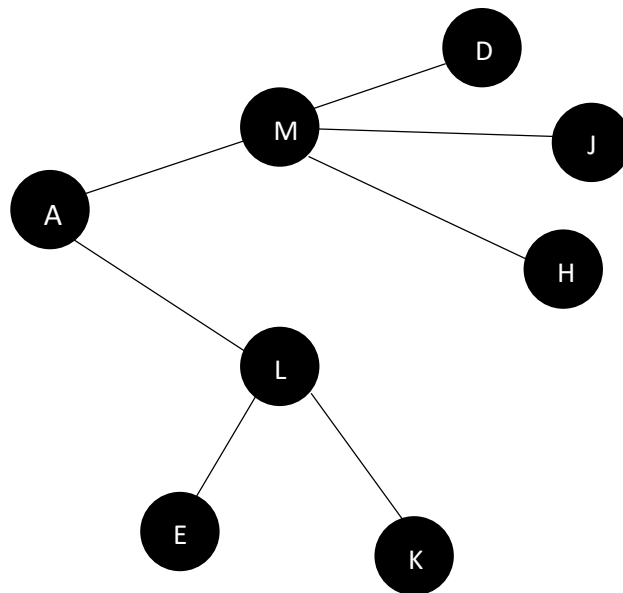


A	L	M	D	H	
---	---	---	--------------	---	--

Out of sequence

A, L, E, K, M, D, H

Step 8:



A	L	M	HJ		
---	---	---	---------------	--	--

Out of sequence

A, L, E, K, M, D, H, J

Answer 4:

Queue is a sequential list in which element are inserted from one end and are deleted/retrieved from other end is called queue.

Queue follows first –in-first-out methodology, i.e.,

Example:

A real-world example of queue can be a single-lane one-way road, where the vehicle enters first, exits first.

More real-world examples can be seen as queues at the ticket windows and bus-stops.