



< Anterior



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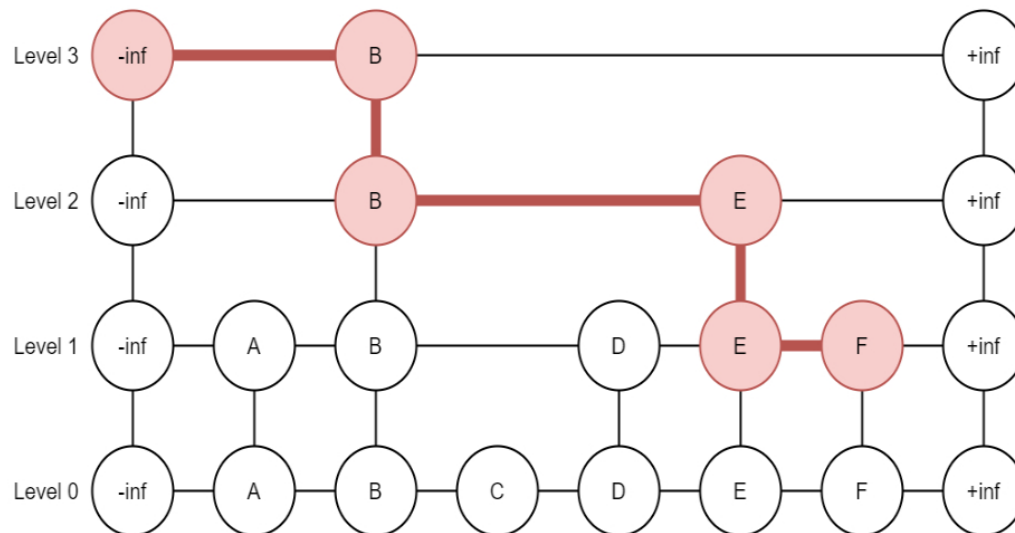
## SkipList Diagramming

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Given the following SkipList, **identify the path** taken to find (or attempt to find) a particular element. For this question, assume that "looking ahead" to the next node for a comparison **does not count** in the path. This means **only nodes that are traversed** should be included in the final output. If the node is in the SkipList, we will "traverse" to it as our final step. Make sure to include the infinity nodes if they are used. Do **not** include traversing to null if the element is not in the SkipList. Follow the format below and identify the nodes traversed based on each level. The level numbers are labeled in the SkipList diagram.

**Answer Format:** When you encounter a node, write the level on which the node occurs and the data in the node in the following format: (level #,data). Should you need to include infinity nodes, specify **+inf** or **-inf** as the data. Keep in mind that nodes on different levels containing the same data are **different** nodes. Your answer should be a list of (level #,data) tuples separated by a single space. See below for an example output.

### Example Answer Format



The traversed path in red: (3,-inf) (3,B) (2,B) (2,E) (1,E) (1,F)

Notice that there are no spaces inside each individual tuple, however, there is a space separating each tuple. Can you guess which value we are searching for in this example?

## SkipList Diagramming

0 puntos posibles (no calificables)

Given the following SkipList below, what is the path that is traversed when searching for **68**?

(3,-inf) (3,52) (2,52) (1,52) (1,63)

✓ Answer: (3,-inf) (3,52) (2,52) (1,52) (1,63) (0,63)

Given the following SkipList below, what is the path that is traversed when searching for **47**?

(3,-inf) (3,52) (2,52) (1,52) (1,63) (0,63)

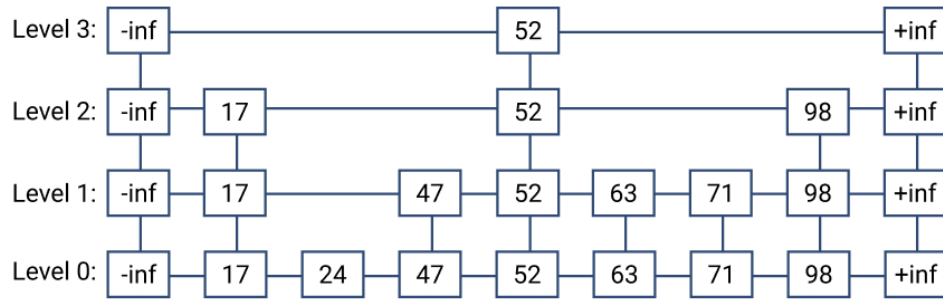
(3,-inf) (2,-inf) (2,17) (1,17) (1,47)

✓ Answer: (3,-inf) (2,-inf) (2,17) (1,17) (1,47)

Enviar

Mostrar respuesta

Las respuestas son mostradas en el problema



### Scratchpad

Below is a textbox you can use as a scratchpad while you work through this problem; you should be able to click in the bottom-right and drag to expand it for your use. No text in this box will be used by the grading script, but you can use it to take notes and work through the exercise. Note that text entered in this box **will not be saved** if you leave and return to this page.

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