Top N problem

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Description

You are tasked with implementing a class that handles price updates from the market and can output *N* highest **unique** price values for the whole class runtime.

N is **immutable** throughout the application runtime and should be defined on startup.

Your class should implement the following interface:

```
void push(int val);
```

```
Collection<Integer> top();
```

Where *push* is called for each new price value and *top* is called when result is needed.

Assume that this is a single threaded environment.

Input

Infinite stream of non-unique integer values will be fed into handler class by calling ***push*** method

Output

When ***top*** method is called you should return a Collection of **maximum unique** price values received by your class throughout **whole application runtime**. Order of the values in a resulting collection doesn't matter.

Example

N = 3

1

2

top() = {1, 2}

3

4

5

top() = {3, 4, 5}

3

1

6

5

0

-10

top() = {4, 5, 6}