



Hello, 2024101067.

# Keep Max Give Min

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## Problem Statement

You are initially given a empty array. You have to apply  $Q$  operations on it. Each operation is of one of the 2 types:

1. **PushIfMax(value):** Insert `value` into the container only if it is strictly greater than the current maximum value in the container.
2. **GetMinAndPop:** Retrieve the minimum value from the container and remove it.

## Input Format

- The first line contains an integer `Q` ( $1 \leq Q \leq 2 \cdot 10^5$ ), the number of operations.
- The next `Q` lines describe an operation:
  - `"1 x"`: Perform **PushIfMax** operation, where `x` ( $1 \leq x \leq 10^9$ ) is the value to be inserted.
  - `"2"`: Perform **GetMinAndPop** operation.

## Output Format

- For each **GetMinAndPop** operation, print the removed minimum value on a new line. If the container is empty print -1 in a new line.

## Example

### Input

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Hello, **2024101067**.

```
1 1
1 2
1 3
2
1 2
1 4
2
2
```

## Output

```
1
2
3
```

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## ? Clarifications

[Request clarification](#)

No clarifications have been made at this time.