Report on solving the Maximum Element Hackerrank challenge.

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After spending some time hunting around on the Hackerrank website looking for a challenge that I thought I could solve, I came across the Maximum Element challenge (https://www.hackerrank.com/challenges/maximum-element).

The solution is written in perl because my perl skills are better than my python/bash skills.

My initial solution worked fine for the first test case but when I tried to submit the code, it failed a number of the remaining test cases with 'timeout' errors.
I downloaded one of the failing test cases and discovered that it contained 100000 queries.
To find the maximum value, my code simply sorted the array containing the stack to find the largest value. I realised that this would not be a very good solution for very large arrays.

Then I had an idea, what if I used a second array/stack to keep track of the 'current' maximum value? I also realised that I needed to keep a record of previous maximum values to cater for the cases where the current maximum value was popped off the stack.

The working code can be seen at https://github.com/oranmore/maximum-element as max-element.pl

The Hackerrank score was 20 points and each of the 27 test cases was completed in less than 0.15s

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