The Volcano Corollary ☠☠

Goals

1. Calculate how many cells are filled with the hot lava for a given rock formation (as a 1D int array) in a valley.
2. Write an int returning method called puddle in Java getting a one-dimensional int array.

Specifications

A river of red-hot lava gushing from the volcano trapped around the rock formations as seen in the below figure 1 and figure 2.

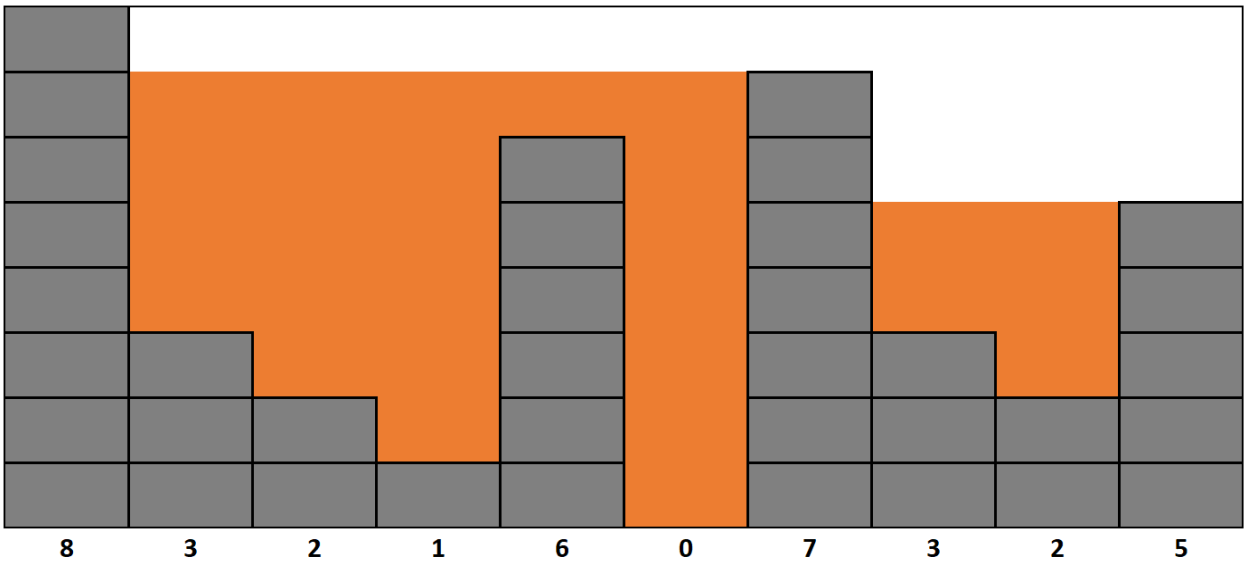

Figure 1: Hot lava puddles in a rocky valley A.

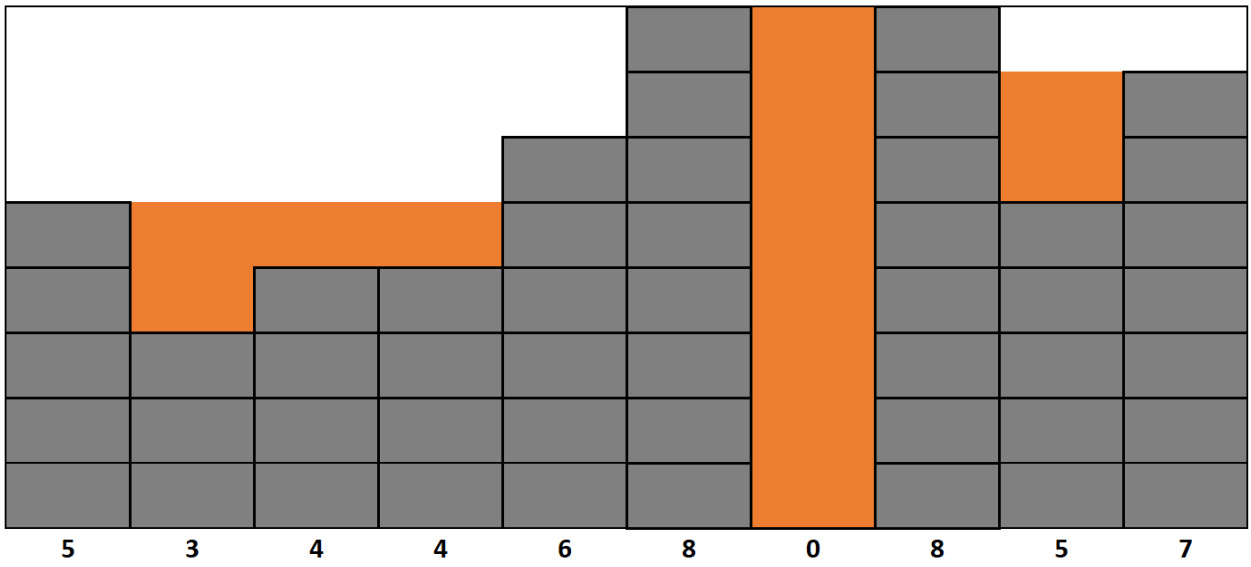

Figure 2: Hot lava puddles in a rocky valley B.

Example Run #1:

```
Enter 10 numbers representing the rock formations in the valley:
8 3 2 1 6 0 7 3 2 5
There can be maximum observable amount of hot lava is (in cells): 28
```

Example Run #2:

```
Enter 10 numbers representing the rock formations in the valley:
5 3 4 4 6 8 0 8 5 7
There can be maximum observable amount of hot lava is (in cells): 14
```

Hint: Integer.MIN_VALUE → is a constant in the Integer class that represents the minimum or least integer value that can be represented in 32 bits.

AYBU Computer Engineering Dept. CENG113 - Homework III

Date given: 13/12/23

Some more example runs:

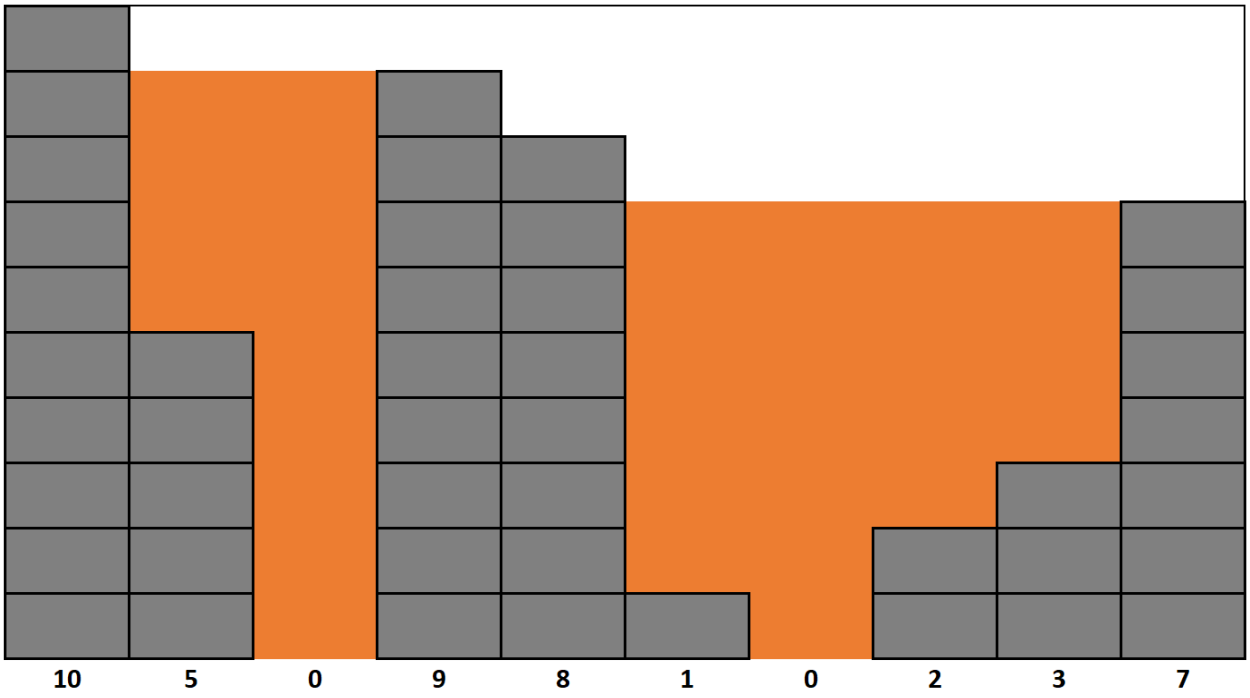

Figure 3: Hot lava puddles in a rocky valley C.

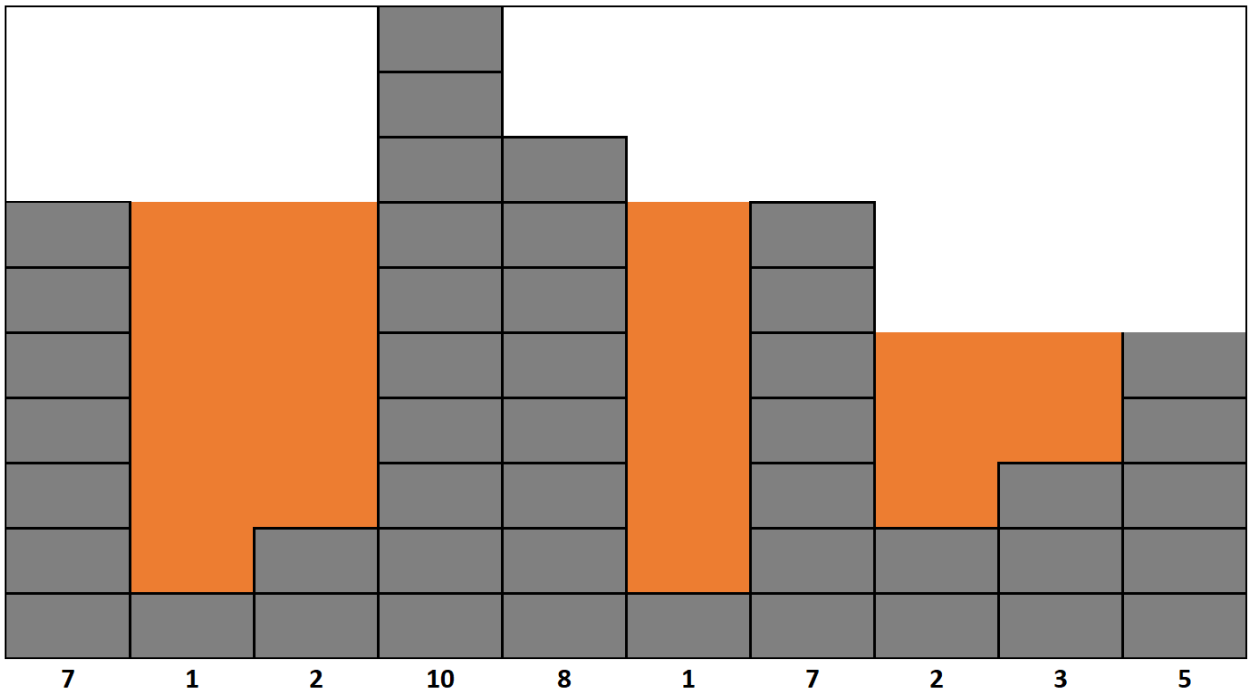

Figure 4: Hot lava puddles in a rocky valley D.

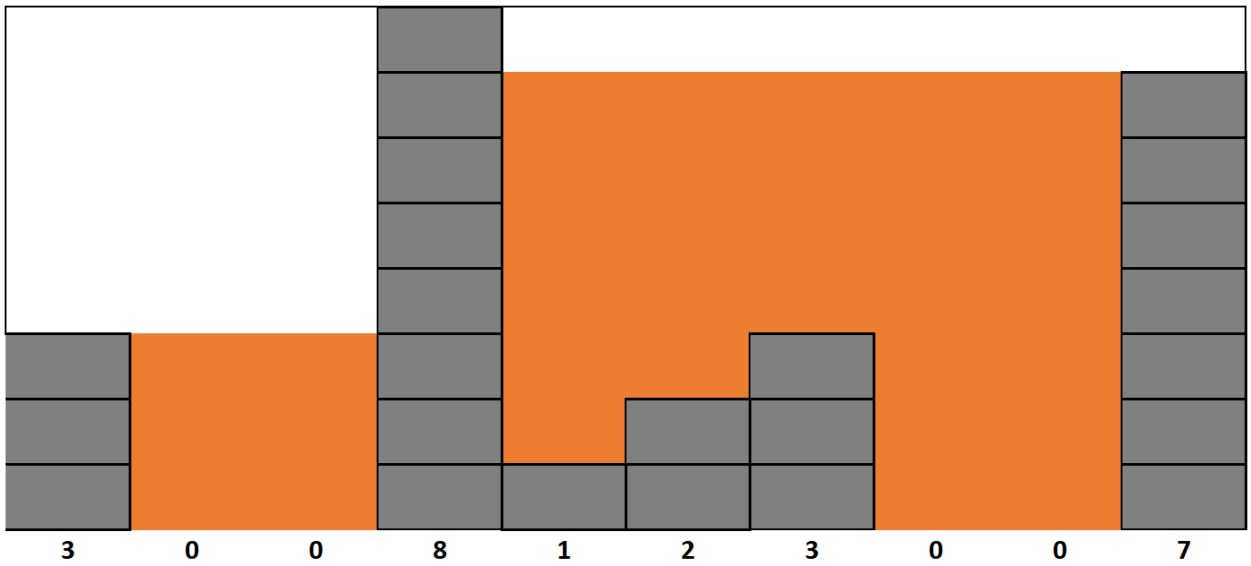

Figure 5: Hot lava puddles in a rocky valley E.

Example Run #3:

```
Enter 10 numbers representing the rock formations in the valley:
10 5 0 9 8 1 0 2 3 7
There can be maximum observable amount of hot lava is (in cells): 35
```

Example Run #4:

```
Enter 10 numbers representing the rock formations in the valley:
7 1 2 10 8 1 7 2 3 5
There can be maximum observable amount of hot lava is (in cells): 22
```

Example Run #5:

```
Enter 10 numbers representing the rock formations in the valley:
3 0 0 8 1 2 3 0 0 7
There can be maximum observable amount of hot lava is (in cells): 35
```