

Data Structure is a collection of data values,  
the relationship among them, and operations  
that can be applied on the data

While choosing DS, we choose such that  
we can store or organise our data  
effectively.

Algorithm

=> step by step procedure to solve a specific problem or class of problems

# Sorting Algorithms

Bubble Sort ✓

Quick sort ✓

Merge sort ✓

[57, 23, -10, 5, 63] ✓

=> [-10, 5, 23, 57, 63] ✓

Pseudocode for finding out

Max No.

$l = [1, 70, 32, 46, 79, 30]$

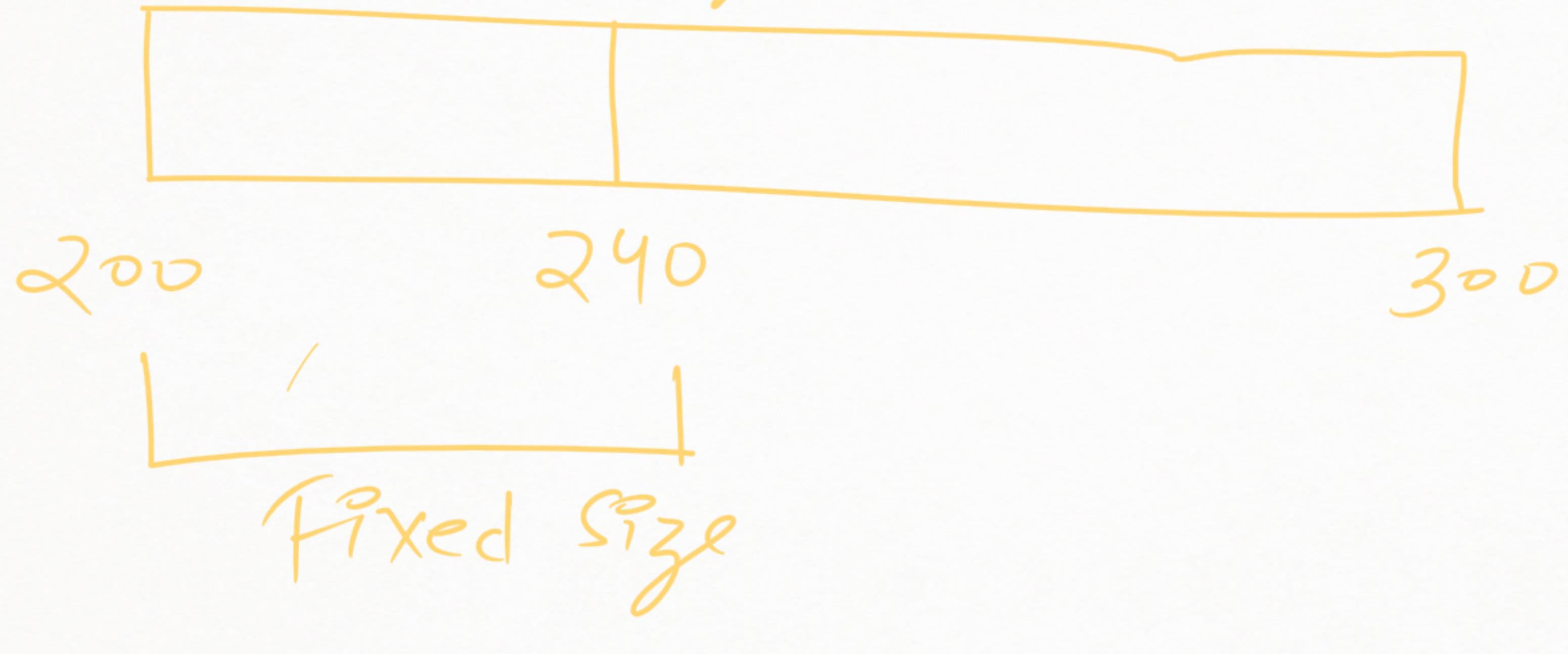
for  $i$  in  $l$  {  
    if  $i > height$   
        height =  $i$ }  
}







# Arrays in C



10 Integers

5<sup>th</sup> Integer

$$200 + 20 \Rightarrow 220$$

A horizontal row of five boxes containing the numbers 7, 8, 15, 21, and 21. The first two boxes (7 and 8) are in their original positions. The next three boxes (15, 21, and 21) have been crossed out with a large red X. Above this row, there are two curved arrows pointing downwards from the top of the row towards the next row.

7	8	15	21	21
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A horizontal row of five boxes containing the numbers 10, 15, 60, 60, and 30. The first two boxes (10 and 15) are in their original positions. The next three boxes (60, 60, and 30) have been rotated 90 degrees clockwise. Above this row, there are two curved arrows pointing downwards from the top of the row towards the bottom row.

10	15	60	60	30
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A horizontal row of five boxes containing the numbers 10, 15, 1000, 60, and 30. The first two boxes (10 and 15) are in their original positions. The next three boxes (1000, 60, and 30) have been rotated 90 degrees clockwise. A separate small box containing the number 1 is positioned below the first two boxes.

10	15	1000	60	30
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