

## Challenge A: Array Reversal:

### Problem Domain :

In this challenge, I will declare a function that takes an array and returns it in reverse order.

### Algorithm:

1. First, I will create an empty array to store the reversed items.
2. Then, I will use a loop that starts from the last index of the original array (i.e., `index[length - 1]`) and iterates backward to the first index (`index[0]`), pushing each item into the new array.

### Visualization:

Let's say the input array is: `[index[0], index[1], index[2], index[3], index[4]]`

**Step 1:** Initialize `reversedArray = []`

**Step 2:**

Start looping from the last index to the first:

- `i = 4` → push `array[4]` → `reversedArray = [index[4]]`
- `i = 3` → push `array[3]` → `reversedArray = [index[4], index[3]]`
- `i = 2` → push `array[2]` → `reversedArray = [index[4], index[3], index[2]]`
- `i = 1` → push `array[1]` → `reversedArray = [index[4], index[3], index[2], index[1]]`
- `i = 0` → push `array[0]` → `reversedArray = [index[4], index[3], index[2], index[1], index[0]]`

### Code :

```
629 */
630
631
632 function ReversalArray(array) {
633   let reversedArray = [] ;
634   for (let i = array.length - 1; i >= 0; i--) {
635     | reversedArray.push(array[i]);
636   }
637   return reversedArray;
638 }
639
640 console.log(ReversalArray([10, 20, 30, 40, 50]));
```

PROBLEMS 2 OUTPUT **DEBUG CONSOLE** TERMINAL PORTS

> (5) [50, 40, 30, 20, 10]

main.js:640