**[Product of Array Except Self](https://leetcode.com/problems/product-of-array-except-self/)**

**public** **class** ProductArrayExceptSelf {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**int**[] nums = {1,2,3,4};

**int**[] result = *productExceptSelf*(nums);

**for**(**int** i : result) {

System.***out***.print(i +" ");

}

}

**public** **static** **int**[] productExceptSelf(**int**[] nums) {

**if**(nums == **null** || nums.length == 0) {

**return** **new** **int**[] {};

}

**int**[] result = **new** **int**[nums.length];

**int** left = 1;

**for**(**int** i = 0 ; i < nums.length ; i++) {

**if**(i != 0) {

left \*= nums[i - 1];

}

result[i] = left;

}

**int** right = 1;

**for**(**int** i = nums.length - 1 ; i >= 0 ; i--) {

**if**(i != nums.length - 1) {

right \*= nums[i + 1];

}

result[i] \*= right;

}

**return** result;

}

}

Time complexity : O(n). n is length of given array

Space Complexity : O(n), n is length of given array