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CH20B069

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Q 2)

Finding the pattern between the input and the output

Given an array `arr[]`, construct a Product Array `prod[]` (of same size) such that `prod[i]` is equal to the product of all the elements of `arr[]` except `arr[i]`

Writing the executable code

(Code in C++ provided in github repo link)

```
#include <iostream>
#include <vector>
using namespace std;

long* productExceptSelf(vector<int> v, int n)
{
    long prod = 1;
    long flag = 0;

    for (int i = 0; i < n; i++) {

        if (v[i] == 0)
            flag++;
        else
            prod *= v[i];
    }
}
```

```

long* arr = new long[n];

for (int i = 0; i < n; i++) {

    if (flag > 1)
        arr[i] = 0;

    else if (flag == 0)
        arr[i] = (prod / v[i]);

    else if (flag == 1 && v[i] != 0)
        arr[i] = 0;

    else
        arr[i] = prod;
}
return arr;
}

int main()
{
    int n ;
    cin>>n;
    vector<int> v(n);

    for(int i =0; i<n; i++)
    {
        cin>>v[i];
    }

    long* ans;

```

```
ans = productExceptSelf(v, n);

for (int i = 0; i < n; i++) {
    cout << ans[i] << " ";
}

return 0;
}
```

Code standards:

Code is done in C++

[Spoonshot-Data-Science/spoonshot 2 code.cpp at main ·](#)

[Darshan59063/Spoonshot-Data-Science \(github.com\)](#)

Q 3) As an intern in Spoonshot what do you want to achieve in 8 weeks ?

Spoonshot delivers food & beverage innovation intelligence by leveraging AI and food science. I will try to implement knowledge of AI/ML, NLP, Data Science to elevate and try to offer a guest experience platform which provides restaurants and bars with perspective on customer satisfaction. Under the guidance of higher official employees, I will try to know an optimized method to predict the customer's .

What is your motivation in the field of Data Science / Machine Learning ?

For personal development, learning data science not only allows me to professionally help the companies, and the nature of the work also enables me to advance in my career, embracing multiple analytical skills over diverse domains like machine learning, big data,

predictive analytics, and others. This extensive pool of knowledge provides me with a unique status and makes them different from others. This is my motivation to start learning Data Science.

If you are given a full time offer as a Data Scientist in Spoonshot what is your dream problem which you would like to solve ?

Forecasting sales for a New Product.

Most data science/ statistical modeling problems rely on learning from past data in order to predict for the future. The challenge with new products is that there is no past data which your algorithm can learn from.

In such a case, what data scientists mostly do is look for a product that has been sold in the past which could possibly have a trend similar to the aforementioned new product.