

# Rajalakshmi Engineering College

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## NeoColab\_REC\_CS23231\_DATA STRUCTURES

### REC\_DS using C\_Week 1\_COD\_Question 1

Attempt : 2  
Total Mark : 10  
Marks Obtained : 10

#### Section 1 : Coding

##### 1. Problem Statement

Janani is a tech enthusiast who loves working with polynomials. She wants to create a program that can add polynomial coefficients and provide the sum of their coefficients.

The polynomials will be represented as a linked list, where each node of the linked list contains a coefficient and an exponent. The polynomial is represented in the standard form with descending order of exponents.

##### *Input Format*

The first line of input consists of an integer  $n$ , representing the number of terms in the first polynomial.

The following  $n$  lines of input consist of two integers each: the coefficient and the exponent of the term in the first polynomial.

The next line of input consists of an integer  $m$ , representing the number of terms in the second polynomial.

The following  $m$  lines of input consist of two integers each: the coefficient and the exponent of the term in the second polynomial.

### **Output Format**

The output prints the sum of the coefficients of the polynomials.

### **Sample Test Case**

Input: 3

2 2

3 1

4 0

3

2 2

3 1

4 0

Output: 18

### **Answer**

```
// You are using GCC
#include<stdio.h>
#include<stdlib.h>
typedef struct node{
    int data1,data2;
    int exp;
    struct node *link;
}node;
int main()
{
    int n,m;
    int sum=0;
    struct node no;
    scanf("%d",&n);
    for(int i=0;i<n;i++)
    {
        scanf("%d %d",&no.data1,&no.data2);
        sum+=no.data1;
    }
    scanf("%d",&m);
```

```
for(int i=0;i<m;i++)  
{  
    scanf("%d %d",&no.data1,&no.data2);  
    sum+=no.data1;  
}  
printf("%d",sum);  
}
```

**Status :** Correct

**Marks :** 10/10