

A Micro Project Report

ON

Problem Solving using C Language

Submitted by
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET
(AUTONOMOUS)**

Accredited by NAAC with A+ Grade and NBA under Tier-1

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Palnadu(Dt.), Andhra Pradesh, India**

2024-2025

NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET
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CERTIFICATE

This is to certify that **Somu Rahul**, **Roll No: 23471A05ET**, a Second Year Student of the Department of Computer Science and Engineering, has completed the Micro Project Satisfactorily in “Problem Solving using C Language” for the Academic Year 2024-2025..

Project Co-Ordinator

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S.No	Description
1.	Develop a project on addition,subtraction and multiplication of two polynomial equations.

Operations on Polynomial Equations

AIM:

To Develop a project on addition, subtraction and multiplication of two polynomial equations.

```
#include<stdio.h>
#define MAX 10
void addpoly(int poly1[],int poly2[],int result[])
{
    int i ;
    for(i = 0 ; i < MAX ;i ++ )
    {
        result[i] = poly1[i]+poly2[i];
    }
}
Void subtractpoly(int poly1[],int poly2[],int result[])
{
    for( int i = 0;i <MAX;i++)
    {
        Result[i]=poly1[i]-poly2[i];
    }
}
Void multiplypoly(int poly1[],int poly2[],int result[])
{
    for(int i=0;i< 2*MAX;i++)
    {
        Result[i]=0;
    }
    for( i=0; i<MAX;i++)
    {
        for( int j=0; j<MAX;j++)
        {
            Result[i+j]+=poly1[i]+poly2[j];
        }
    }
}
```

```

    }
    }
    }
    Void displaypoly(int poly[], int degree)
    {
    for(int i=degree;i>=0;i--)
    {
    if(poly[i]!=0)
    {
    Printf("%d",poly[i]);
    if(i!=0)
    {
    Printf("%d",i)
    if(i>0&&poly[i-1]>=0)
    {
    Printf("+");
    }
    }
    }
    Printf("\n");
    }
    }
    int main()
    {
    int poly1[MAX]={0},poly2[MAX]={0},sum[MAX]={0},product[MAX]={0},
    subtract[MAX]={0},int degree1,int degree2;
    printf("Enter degree and coefficients of first polynomial:");
    scanf( "%d",&degree1);
    for(int i=0;i<degree1;i++)
    {
    Scanf("%d",&poly1[i]);
    }
    Printf("enter degree and coefficients of second polynomial:");
    Scanf("%d",&degree2);
    For(int i=0;i<degree2;i++)
    {
    Scanf("%d",&poly2[i]);

```

```

}
Addpoly(poly1,poly2,sum);
Subtractpoly(poly1,poly2,diff);
multiplypoly(poly1,poly2,product);
printf("\nsum:");
displaypoly(sum,(degree1>degree2)?degree1:degree2);
printf("diff:");
displaypoly(diff,(degree1>degree2)?degree1:degree2);
printf("product:");
displaypoly(product,degree1+degree2);
return 0;

```

Sample Input:

```

Enter degree and coefficients
of first polynomial:
2
3 2 1 // This represents 3 +
2x + x^2

Enter degree and coefficients
of second polynomial:
1
1 4 // This represents 1 +
4x

```

OUTPUT:

```

Sum: 4 + 6x + x^2

Difference: 2 - 2x + x^2

Product: 3 + 14x + 9x^2 + 4x^3

```

