

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
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NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET
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CERTIFICATE

This is to certify that **Shaik Ameenabi** , **Roll No: 23471A05EF**, 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..

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prime numbers count from minimum to maximum

Write a C program to count numbers of prime numbers in given minimum to maximum Ranges

AIM:

```
#include<stdio.h>

int main()
{
    int minimum, maximum, flag, count=0, i, j;
    printf("Enter minimum number: ");
    scanf("%d", &minimum);
    printf("Enter maximum number: ");
    scanf("%d", &maximum);
    for(i=minimum; i<=maximum; i++)
    {
        flag = 0;
        for(j=2; j <= i/2; j++)
        {
            if(i%j==0)
            {
                flag=1;
                break;
            }
        }
    }
}
```

```
        }  
    }  
    if(flag==0 && i>=2)  
    {  
        count++;  
    }  
}  
printf("\n Prime Count = %d", count);  
return 0;  
}
```

Input:

Enter the minimum value:10

Enter the maximum value:100

Output:

Prime count:21

```
Enter minimum number: 10  
Enter maximum number: 100
```

```
Prime Count = 21|
```

Armstrong Numbers from minimum to maximum

Write a C program to generate armstrong numbers in given minimum to maximum to ranges

AIM:

```
#include<stdio.h>
```

```
#include<math.h>
```

```
int main()
```

```
{
```

```
    int minimum, maximum, Count, number, sum, rem, i;
```

```
    printf("Enter minimum number: ");
```

```
    scanf("%d", &minimum);
```

```
    printf("Enter maximum number: ");
```

```
    scanf("%d", &maximum);
```

```
    for(i=minimum; i<=maximum; i++)
```

```
    {
```

```
        number = i;
```

```
        Count = 0;
```

```
        while(number != 0)
```

```
        {
```

```
        Count++;
        number = number/10;
    }
    number = i;
    sum = 0;
    while(number != 0)
    {
        rem = number%10;
        sum = sum + pow(rem, Count);
        number = number/10;
    }
    if(sum == i)
    {
        printf("%d\t", i);
    }
}
return 0;
}
```


Input:

Enter a min value:10

Enter a max value:500

Output:

153 370 371 407

```
10
Enter minimum number: 10
Enter maximum number: 500
153 370 371 407
```

First N prime numbers

Write a C program to generate first N prime numbers where N is given by user

AIM:

```
#include<conio.h>

int main()
{
    int n, count=1, flag, i=2, j;
    clrscr();
    printf("Enter how many prime numbers? \n");
    scanf("%d", &n);
    while(count <= n)
    {
        flag = 0;
        for(j=2; j <= i/2; j++)
        {
            if(i%j==0)
            {
                flag=1;
                break;
            }
        }
    }
}
```

```
    }  
    if(flag==0)  
    {  
        printf("%d ",i);  
        count++;  
    }  
    i++;  
}  
getch();  
return 0;  
}
```

Input:

Enter how many prime numbers ?

30

Output:

2 3 5 7 11 13 17 19 23 29 31 37

41 43 47 53 59 61 67 71 73 79

83 89 97 101 103 107 109 113

```
Enter how many prime numbers?
30
2 3 5 7 11 13 17 19 23 29 31 37
41 43 47 53 59 61 67 71 73 79 83
89 97 101 103 107 109 113
```

Perfect numbers from minimum to maximum

Write a C program to generate perfect numbers in given minimum to maximum Ranges

AIM:

```
#include<stdio.h>

int main()
{
    int minimum, maximum, sum, i, j;
    printf("Enter the minimum number: ");
    scanf("%d", &minimum);
    printf("Enter the maximum number: ");
    scanf("%d", &maximum);
    for(i=minimum; i<=maximum; i++)
    {
        sum = 0;
        for(j=1; j< i; j++)
        {
            if(i%j==0)
            {
                sum = sum + j;
            }
        }
    }
}
```

```

        }

    }

    if(sum == i)
    {
        printf("%d\t", i);
    }
}

return 0;
}

```

Input:

Enter a min value:1

Enter a max value:500

Output:

6 28 496

```

Enter the minimum number: 1
Enter the maximum number: 500
6 28 496 |

```