A Micro Project Report on
Problem Solving using C Language

Submitted by

Kumbagiri.Mounika(23471A05DY)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET (AUTONOMOUS)

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

NIRF rank in the band of 201-300 and is an ISO 9001:2015 certified Approved by AICTE, New Delhi, Permanently affiliated to JNTU Kakinada, Approved by AICTE, Accredited by NBA and accredited 'A+' grade by NAAC Narasaraopet-522601, Palnadu(Dt.), Andhra Pradesh, India

2024-2025

NARASARAOPETA ENGINEERING COLLEGE:

NARASARAOPET (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that **Kumbagiri.Mounika**, **Roll No: 23471A05DY**, 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

Dr. Rama Krishna. Eluri, M.Tech., Ph.D.

.**Asst. Professor**

HEAD OFTHE DEPARTMENT

Dr. S. N. Tirumala Rao,M.Tech Ph.D.

Professor

Index

s.no	description
1	Employee record in decending order by age in structure.
2	Read records of n students and display details of students having hightest marks.
3	Read records of n different students and sort on the basis of marks in ascending order.

Employee record in descending order by age in structure

Aim: Employee record in descending order by age in structure

Source code:

```c
#include<stdio.h>
typedef struct
{
    char name[30];
    int salary;
    int age;
}employee;
int main()
{
    employee e[20], temp;
    int i,j,n;
    printf("Enter n:\n");
    scanf("%d",&n);
    for(i=0;i< n;i++)
    {
        printf("Enter name, salary and age of
employee:\n");  scanf("%s%d%d",e[i].name,
&e[i].salary, &e[i].age);
    }
    for(i=0;i< n-1;i++)
    {
        for(j=i+1;j< n;j++)
        {
            i f(e[i].age< e[j].age)
            {
                temp = e[i];
                e[i] = e[j];
                e[j] = temp;
            }
        }
    }
    printf("Sorted records are:\n");
    for(i=0;i< n;i++)
    {
        printf("Name: %s\n", e[i].name);
        printf("Salary: %d\n", e[i].salary);
        printf("Age: %d\n\n", e[i].age);
    }
```

```
    return 0;
}
```

Output:
Enter n:
3
Enter name, salary and age of employee:
mounika 50000 24

Enter name, salary and age of employee:
gousia 100000 25
Enter name, salary and age of employee:
asha 60000 30
Sorted records are:
Name: asha
Salary: 60000
Age: 30

Name: gousia
Salary: 100000
Age: 25

Name: mounika
Salary: 50000
Age: 24

Aim:

Read records of n students and display details of a student having highest marks

Source code:

```c
#include <stdio.h>
struct student
{
    int rollno;
    char name[10];
    float marks;
    Int temp;
};
void main()
{
    int i,j;
    int n;
    struct student st[5],temp;
    printf("Enter the no.of students:");
    scanf("%d",&n);
    for(i=0;i<n;i++)
    {
    printf("\n Enter roll no:");
    scanf("%d",&st[i].rollno);
    printf("\n Enter name:");
    scanf("%s",st[i].name);
    printf("\n Enter marks:");
    scanf("%f",&st[i].marks);
    }
    for(i=0;i<n-1;i++)
    {
        for(j=i+1;j<n;j++)
        {
           if(st[i].marks<st[j].marks)
           {
              temp=st[i];
              st[i]=st[j];
```

```
          st[j]=temp;
        }
    }
}
printf("Highest marks stdent:");
printf("\n roll no=%d",st[0].rollno);
printf("\n Name=%s",st[0].name);
printf("\n Marks=%f",st[0].marks);
}
```

Output:

```
Enter the no.of students:3

Enter roll no:1

Enter name:pavani

Enter marks:85

Enter roll no:2

Enter name:nandhu

Enter marks:78

Enter roll no:3

Enter name:pooja
Enter marks:90
Highest marks stdent:
roll no=3
Name=pooja
Marks=90.000000
```

ecordsof n different students and sort on

the basis of marks in ascending order

Aim:

Read recordsof n different students and sort on the basis of marks in ascending order

Source code:

```
#include<stdio.h>
struct student
{
    int rollno;
    char name[10];
    float marks;
    int temp;
};
void main()
{
    int i,j;
    int n;
    struct student st[5],temp;
    printf("Enter the no.of students:");
    scanf("%d",&n);
    for(i=0;i<n;i++)
    {
        printf("\n Enter roll no:");
        scanf("%d",&st[i].rollno);
        printf("\n Enter name:");
        scanf("%s",st[i].name);
        printf("\n Enter marks:");
        scanf("%f",&st[i].marks);
    }
    for(i=0;i<n-1;i++)
```

```c
    {
        for(j=i+1;j<n;j++)
        {
            if(st[i].marks>st[j].marks)
            {
                temp=st[i];
                st[i]=st[j];
                st[j]=temp;
            }
        }
    }
 printf("Marks in Ascending Order");
 for(i=0;i<n;i++)
 {
      printf("\n roll no=%d",st[i].rollno);
 printf("\n Name=%s",st[i].name);
 printf("\n Marks=%f",st[i].marks);
 }
 }
```

Output:

```
Enter the no.of students:2

Enter roll no:1

Enter name:siva

Enter marks:89

Enter roll no:2

Enter name:kishore

Enter marks:93
Marks in Ascending Order
roll no=1
Name=siva
Marks=89.000000
roll no=2
Name=kishore
Marks=93.000000
```