**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**

**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**

**2024-20****25**

**NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET**

**(AUTONOMOUS)**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**CERTIFICATE**

**This is to certify that Gunji Lahari, Roll No: 23471A0521, 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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**Asst. Professor Professor**

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| --- | --- |
| **S.No** | **Description** |
|  | **Enter ranking system (highest score student get first ,if more than one student get equal score then check the subject priority hear don't change student order).** |

|  |
| --- |
| **Ranking system (highest score student get first, more than one student get equal score check the subject priority don't change the order)** |

**AIM**:

**1.Enter ranking system (highest score student get first ,if more than one student get equal score then check the subject priority hear don't change student order).**

**#include <stdio.h>**

**#include <string.h>**

**typedef struct {**

**char name[50];**

**int math;**

**int physics;**

**int chemistry;**

**int total;**

**int original\_order; // To preserve the original order**

**} Student;**

**void swap(Student \*a, Student \*b) {**

**Student temp = \*a;**

**\*a = \*b;**

**\*b = temp;**

**}**

**void sortStudents(Student students[], int n) {**

**for (int i = 0; i < n - 1; i++) {**

**for (int j = 0; j < n - i - 1; j++) {**

**if (students[j].total < students[j + 1].total) {**

**swap(&students[j], &students[j + 1]);**

**}**

**else if (students[j].total == students[j + 1].total) {**

**if (students[j].math < students[j + 1].math) {**

**swap(&students[j], &students[j + 1]);**

**}**

**else if (students[j].math == students[j + 1].math) {**

**if (students[j].physics < students[j + 1].physics) {**

**swap(&students[j], &students[j + 1]);**

**}**

**else if (students[j].physics == students[j + 1].physics) {**

**if (students[j].chemistry < students[j + 1].chemistry) {**

**swap(&students[j], &students[j + 1]);**

**}**

**else if (students[j].chemistry == students[j + 1].chemistry) {**

**if (students[j].original\_order > students[j + 1].original\_order) {**

**swap(&students[j], &students[j + 1]);**

**}**

**}**

**}**

**}**

**}**

**}**

**}**

**}**

**int main() {**

**int n;**

**printf("Enter the number of students: ");**

**scanf("%d", &n);**

**Student students[n];**

**printf("Enter the details of students (Name Math Physics Chemistry):\n");**

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

**students[i].original\_order = i; // Track original order**

**scanf("%s %d %d %d", students[i].name, &students[i].math, &students[i].physics, &students[i].chemistry);**

**students[i].total = students[i].math + students[i].physics + students[i].chemistry;**

**}**

**sortStudents(students, n);**

**printf("\nEMCET Ranking:\n");**

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

**printf("%d. %s - Total: %d, Math: %d, Physics: %d, Chemistry: %d\n",**

**i + 1, students[i].name, students[i].total, students[i].math, students[i].physics, students[i].chemistry);**

**}**

**return 0;**

**}**

**Output:**

**Enter the number of students: 4**

**Enter the details of students (Name Math Physics Chemistry):**

**Alice 85 90 80**

**Bob 80 85 90**

**Charlie 85 85 85**

**David 90 80 80**

**EMCET Ranking:**

**1. Latha- Total: 255, Math: 85, Physics: 90, Chemistry: 80**

**2. Seetha - Total: 255, Math: 85, Physics: 85, Chemistry: 85**

**3. Geetha- Total: 255, Math: 80, Physics: 85, Chemistry: 90**

**4. Boby- Total: 250, Math: 90, Physics: 80, Chemistry: 80**