ASSIGNMENT

By

Manik Raina

2023A1R180

1st Sem

Model Institute of Engineering & Technology (Autonomous)

(Permanently Affiliated to the University of Jammu, Accredited by NAAC with "A" Grade)

Jammu, India

2023

ASSIGNMENT

Subject Code: Subject Name

Due Date:

Question Number	Course Outcomes	Blooms' Level	Maximum Marks	Marks Obtain
Q1	CO 4	3-6	10	
Q2	CO 5	3-6	10	
Total Marks			20	
Faculty Signature Email:				

Assignment Objectives:

Clearly define the objectives and learning outcomes of the assignment. What should students be able to demonstrate or achieve after completing this assignment?

Assignment Instructions:

1. Group Size: Assignments will be completed in groups of 4-6 students.

2. Assessment Rubrics

3. Submission Method: Specify how and where students should submit their completed assignments (e.g., Camu LMS, Google Drive, in-person).

Guidelines for Each Question:

For each of the questions (including subparts, if any) within the assignment, provide clear instructions, including details on the content, format, and assessment criteria including rubrics. Ensure that the questions are designed to evaluate students' problem-solving skills and knowledge application.

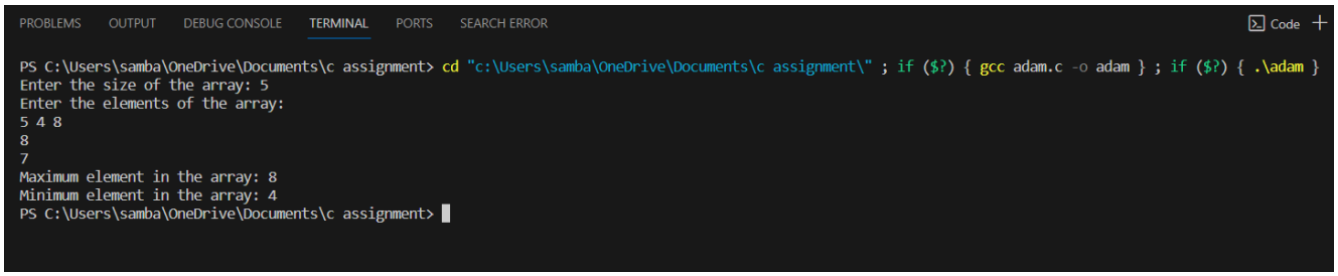
Q. No.	Question	BL	CO	Marks	Total Marks
1	Write a program in C to find maximum and minimum element in an array			10	10
2	Write a program in c to print the studdent marksheet using structu re.			10	10

Write a program in C to find maximum and minimum element in an array

PROGRAM

```c
#include <stdio.h>

void findMinMax(int arr[], int size, int *max, int *min) {
    *max = *min = arr[0]; // Initialize max and min with the first element of the array

    for (int i = 1; i < size; i++) {
        if (arr[i] > *max) {
            *max = arr[i]; // Update max if a larger element is found
        }
        if (arr[i] < *min) {
            *min = arr[i]; // Update min if a smaller element is found
        }
    }
}

int main() {
    int size;
    printf("Enter the size of the array: ");
    scanf("%d", &size);

    int arr[size];
    printf("Enter the elements of the array:\n");
    for (int i = 0; i < size; i++) {
        scanf("%d", &arr[i]);
    }

    int max, min;
    findMinMax(arr, size, &max, &min);

    printf("Maximum element in the array: %d\n", max);
    printf("Minimum element in the array: %d\n", min);

    return 0;
}
```

OUTPUT

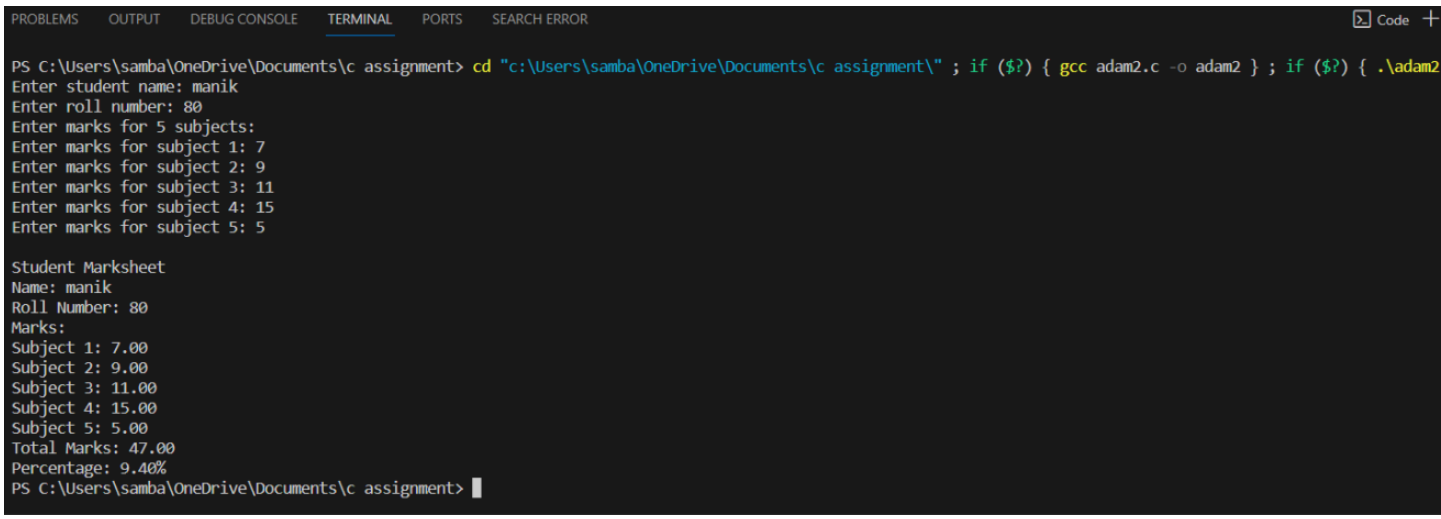

PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
SEARCH ERROR
Code
PS C:\Users\samba\OneDrive\Documents\c assignment> cd "c:\Users\samba\OneDrive\Documents\c assignment\" ; if ($?) { gcc adam.c -o adam } ; if ($?) { .\adam }
Enter the size of the array: 5
Enter the elements of the array:
5 4 8
8
7
Maximum element in the array: 8
Minimum element in the array: 4
PS C:\Users\samba\OneDrive\Documents\c assignment>

Write a program in c to print the studdent marksheet usi ng structure.

PROGRAM

```c
#include <stdio.h>

// Define a structure to hold student information
struct Student {
    char name[50];
    int rollNumber;
    float marks[5]; // Assuming 5 subjects
    float totalMarks;
    float percentage;
};

// Function to calculate total marks and percentage
void calculateResult(struct Student *student) {
    student->totalMarks = 0;
    for (int i = 0; i < 5; i++) {
        student->totalMarks += student->marks[i];
    }
    student->percentage = (student->totalMarks / 500) * 100; // Assuming total marks for 5 subjects is 500
}

// Function to display the student marksheet
void displayMarksheet(struct Student student) {
    printf("\nStudent Marksheet\n");
    printf("Name: %s\n", student.name);
    printf("Roll Number: %d\n", student.rollNumber);
    printf("Marks:\n");
    for (int i = 0; i < 5; i++) {
        printf("Subject %d: %.2f\n", i + 1, student.marks[i]);
    }
    printf("Total Marks: %.2f\n", student.totalMarks);
    printf("Percentage: %.2f%%\n", student.percentage);
}

int main() {
    struct Student student;

    printf("Enter student name: ");
    scanf("%s", student.name);

    printf("Enter roll number: ");
    scanf("%d", &student.rollNumber);

    printf("Enter marks for 5 subjects:\n");
    for (int i = 0; i < 5; i++) {
        printf("Enter marks for subject %d: ", i + 1);
        scanf("%f", &student.marks[i]);
    }

    calculateResult(&student);
    displayMarksheet(student);

    return 0;
}
```

OUTPUT


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
SEARCH ERROR
Code
PS C:\Users\samba\OneDrive\Documents\c assignment> cd "c:\Users\samba\OneDrive\Documents\c assignment\" ; if ($?) { gcc adam2.c -o adam2 } ; if ($?) { .\adam2
Enter student name: manik
Enter roll number: 80
Enter marks for 5 subjects:
Enter marks for subject 1: 7
Enter marks for subject 2: 9
Enter marks for subject 3: 11
Enter marks for subject 4: 15
Enter marks for subject 5: 5
Student Marksheet
Name: manik
Roll Number: 80
Marks:
Subject 1: 7.00
Subject 2: 9.00
Subject 3: 11.00
Subject 4: 15.00
Subject 5: 5.00
Total Marks: 47.00
Percentage: 9.40%
PS C:\Users\samba\OneDrive\Documents\c assignment>