

ASSIGNMENT -> 8

1. Write a Program to create a structure called Student to store his/her name, and marks.

```
#include <stdio.h>

struct Student {
    char name[50];
    float marks;
};

int main() {
    struct Student s;
    printf("Enter student name: ");
    scanf("%s", s.name);
    printf("Enter marks: ");
    scanf("%f", &s.marks);
    printf("\nStudent Details:\n");
    printf("Name: %s\n", s.name);
    printf("Marks: %.2f\n", s.marks);
    return 0;
}
```

2. Write a Program to create a structure called Student to store his/her name, and marks.

```
#include <stdio.h>

struct Student {
    char name[50];
    float marks;
};

int main() {
    int n;
    printf("Enter the number of students: ");
    scanf("%d", &n);
```

```

struct Student students[n];

for (int i = 0; i < n; i++) {
    printf("Enter name: ");
    scanf("%s", students[i].name);
    printf("Enter marks: ");
    scanf("%f", &students[i].marks);
}

for (int i = 0; i < n; i++) {
    printf("\nStudent %d:\n", i + 1);
    printf("Name: %s\nMarks: %.2f\n", students[i].name, students[i].marks);
}

return 0;
}

```

ASSIGNMENT -> 9

1. Write a Program to print address of an integer variable.

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

```

int main() {
    int num;
    printf("Enter an integer: ");
    scanf("%d", &num);
    printf("Address of the variable: %p\n", &num);
    return 0;
}

```

2. Write a Program to swap two numbers using pointers.

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

```

int main() {
    int x, y, temp;
    printf("Enter two numbers: ");
    scanf("%d %d", &x, &y);

    printf("Before swapping: x = %d, y = %d\n", x, y);

    int *a = &x, *b = &y;
    temp = *a;
    *a = *b;
    *b = temp;

    printf("After swapping: x = %d, y = %d\n", x, y);

    return 0;
}

```

3. Write a Program to add two numbers using pointers.

```

#include <stdio.h>

int main() {
    int x, y, sum;
    printf("Enter two numbers: ");
    scanf("%d %d", &x, &y);
    int *a = &x, *b = &y;
    sum = *a + *b;
    printf("Sum = %d\n", sum);
    return 0;
}

```

4 Write a Program to read and display values in a 1-D array using pointers.

```
#include <stdio.h>

int main() {
    int n;
    printf("Enter the number of elements: ");
    scanf("%d", &n);

    int arr[n], *ptr = arr;

    printf("Enter %d elements: ", n);
    for (int i = 0; i < n; i++) {
        scanf("%d", ptr + i);
    }

    printf("Array elements: ");
    for (int i = 0; i < n; i++) {
        printf("%d ", *(ptr + i));
    }

    return 0;
}
```

5. Write a Program to find the factorial of a given number using function and pointers.

```
#include <stdio.h>

void factorial(int n, long long *result) {
    *result = 1;
    for (int i = 1; i <= n; i++) {
```

```
        *result *= i;
    }
}

int main() {
    int num;
    long long fact;

    printf("Enter a number: ");
    scanf("%d", &num);

    factorial(num, &fact);

    printf("Factorial of %d is %lld\n", num, fact);

    return 0;
}
```