

C PROGRAMMING

Lecture 3

1st semester 2023-2024

Discussions

```
#include<stdio.h>
int main( )
{
    int a,b,c;
    int sum,average;
    printf("Enter any three integers: ");
    scanf("%d%d %d",&a,&b,&c);
    sum = a+b+c;
    average=sum/3
    printf("Sum and average  of three integers: %d  %d",sum,average);
    return 0;
}
```

Discussions

```
#include<stdio.h>
#include<math.h>
main()
{
    int a,b,c,s;
    float area;
    printf(" Enter the values \n");
    scanf("%d%d%d",&a,&b,&c);
    s=(a+b+c)/2;
    area=sqrt(s*(s-a)*(s-b)*(s-c));
    printf(" The area of triangle is= %f",area);
}
```

Discussions

```
#include<stdio.h>
main()
{
    int n,sum,i;
    clrscr();
    printf(" Enter the value of n \n");
    scanf("%d",&n);
    sum=0;
    i=1;
    do
    {
        sum=sum+i;
        i=i+1;
    }
    while (i<=n);
    printf("Sum of first %d number = %d",n,sum);
}
```

Discussions

```
#include<stdio.h>
main()
{
    int dayno;
    clrscr();
    printf("Input day number of the week \n");
    scanf("%d",&dayno);
    switch(dayno)
    {
        case 1: printf("Sunday \n");
                break;
        case 2: printf("Monday \n");
                break;
        case 3: printf("Tuesday \n");
                break;
        case 4: printf("Wednesday \n");
                break;
        case 5: printf("Thursday \n");
                break;
        case 6: printf("Friday \n");
                break;
        case 7: printf("Saturday \n");
                break;
        default: printf("Invalid Input \n");
                 break;
    }
    getch();
}
```

Discussions

```
#include <stdio.h>

int main()
{
    /* Declare loop counter variable */
    int count;

    /* Run a loop from 1 to 10 */
    for(count=1; count<=10; count++)
    {
        /* Print current value of count */
        printf("%d ", count);
    }

    return 0;
}
```

Discussions

```
#include <stdio.h>

int main() {
    char operator;
    double num1, num2;

    printf("Enter an operator (+, -, *, /): ");
    scanf("%c", &operator);

    printf("Enter two numbers: ");
    scanf("%lf %lf", &num1, &num2);

    double result;
    switch (operator) {
        case '+':
            result = num1 + num2;
            break;
        case '-':
            result = num1 - num2;
            break;
        case '*':
            result = num1 * num2;
            break;
        case '/':
            if (num2 != 0) {
                result = num1 / num2;
            } else {
                printf("Error: Division by zero\n");
                return 1;
            }
            break;
        default:
            printf("Error: Invalid operator\n");
            return 1;
    }

    printf("Result: %lf\n", result);
    return 0;
}
```

Discussions

```
#include <stdio.h>

int main() {
    for (int i = 10; i >= 1; i--) {
        printf("%d\n", i);
    }
    return 0;
}
```

```
#include <stdio.h>

int main() {
    int rows = 5;
    for (int i = 1; i <= rows; i++) {
        for (int j = 1; j <= i; j++) {
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```


Discussions

```
#include <stdio.h>

int main() {
    int num, factorial = 1;

    do {
        printf("Enter a positive integer: ");
        scanf("%d", &num);

        if (num <= 0) {
            printf("Please enter a positive integer.\n");
        }
    } while (num <= 0);

    for (int i = 1; i <= num; i++) {
        factorial *= i;
    }

    printf("%d! = %d\n", num, factorial);

    return 0;
}
```