**Tutorial 05**

Switch case

#include <stdio.h>

int main () {

    float num1, num2;

    int choice;

    printf("Enter two numbers: ");

    scanf("%f %f", &num1, &num2);

    printf("1. +\n");

    printf("2. -\n");

    printf("3. \*\n");

    printf("4. /\n");

    printf("Enter your choice: ");

    scanf("%d", &choice);

    switch (choice) {

        case 1:

            printf("%.2f + %.2f = %.2f", num1, num2, num1 + num2);

            break;

        case 2:

            printf("%.2f - %.2f = %.2f", num1, num2, num1 - num2);

            break;

        case 3:

            printf("%.2f \* %.2f = %.2f", num1, num2, num1 \* num2);

            break;

        case 4:

            if (num2 != 0) {

                printf("%.2f / %.2f = %.2f\n", num1, num2, num1 / num2);

            }

            else {

                printf("Can't divide by zero");

            }

            break;

    }

    return 0;

}

While loop

* #include <stdio.h>

int main () {

    int num, count = 0;

    int even\_count = 0, odd\_count = 0;

    printf("Enter 10 numbers\n");

    while (count < 10) {

        printf ("Enter %d number: ", count + 1);

        scanf ("%d", &num);

        if (num % 2 == 0) {

            even\_count++;

        }

        else {

            odd\_count++;

        }

        count++;

    }

    printf ("Even count: %d\n", even\_count);

    printf ("Odd count: %d\n", odd\_count);

    return 0;

}

* #include <stdio.h>

int main () {

    int num;

    int even\_count = 0, odd\_count = 0;

    printf("Enter a series of numbers (Terminate with -99)\n");

    while (1) {

        printf ("Enter number: ");

        scanf ("%d", &num);

        if (num == -99) {

            break;

        }

        if (num % 2 == 0) {

            even\_count++;

        }

        else {

            odd\_count++;

        }

    }

    printf ("Even count: %d\n", even\_count);

    printf ("Odd count: %d\n", odd\_count);

    return 0;

}

Do while loop

* #include <stdio.h>

int main () {

    int num, i = 0;

    int even\_count = 0, odd\_count = 0;

    do {

        printf ("Enter %d number: ", i + 1);

        scanf ("%d", &num);

        if (num % 2 == 0) {

            even\_count++;

        }

        else {

            odd\_count++;

        }

        i++;

    } while (i < 10);

    printf ("Even count: %d\n", even\_count);

    printf ("Odd count: %d\n", odd\_count);

    return 0;

}

* #include <stdio.h>

int main () {

    int num;

    int even\_count = 0, odd\_count = 0;

    printf("Enter a series of numbers (Terminate with -99)\n");

    do {

        printf ("Enter numbers: ");

        scanf ("%d", &num);

        if (num != -99) {

            if (num % 2 == 0) {

                even\_count++;

            }

            else {

                odd\_count++;

            }

        }

        else {

            break;

        }

    } while (num != -99);

    printf ("Even count: %d\n", even\_count);

    printf ("Odd count: %d\n", odd\_count);

    return 0;

}

For loop

* #include <stdio.h>

int main () {

    int sum = 0;

    float avg;

    for (int i = 1; i <= 10; i++) {

        printf("Enter %d number: ", i);

        scanf("%d", &i);

        sum += i;

    }

    avg = sum / 10;

    printf("Average: %.2f", avg);

    return 0;

}

* #include <stdio.h>

int main () {

    int rows;

    printf("Enter rows number: ");

    scanf("%d", &rows);

     for (int i = 1; i <= rows; ++i) {

        for (int j = 1; j <= i; ++j) {

            printf("\*");

        }

        printf("\n");

    }

    return 0;

}