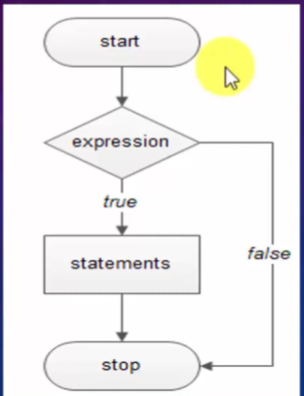
**S3\_\_StatmentAnd Espression**

**Expression :-** its combination of opearands (variable, literals, method). Expression have atleast one value. Ends with semicolon.

Eg:- var a =20; OR sum = a+b+c;

**Statement :-** statement means more than one sentence or code. Its called as block or scope. Ends with semicolon. Statement is also provide decision making and looping structure.

* **Types of Statement: - Selection Statement OR Conditional Statement OR Decision Making: --** (if, else, nested if, nested else, swtich):- this is used to make decision. It vary on the Boolean value. If..if..if : checked all condition. And all the condition goes in sequence.
* **Nested If :** if within if. It consist multiple if statement. Outer if is indicate main if.



* **Switch Case:** its used against if condition. Treated as if condition. In switch we need to pass argument. Switch(argument). It contain case and break; when condition falls default it will return.
* **Nested Swtich:** switch within switch. Outer and inner switch.
* **Iteration Statement :--(** for, do(execute atleast once without checking condition), while, foreach):-- this is used to iterate over the elements. It allows to execute single statement repetedly. If the condition not satisfy if goes in to **infinite loop.**
* **Nested For Loop :**

**Foreach :** used with list ,array, collection etc.

* **Jump Statement: --** (break, continue, goto, return, yeild):-- jump statement used to break or continue the statement from where it’s used.

**Break:-** it break the program if the condition is satisfy. Used in selection and loop (for). Most used in switch. And control pass to next block.

**Continue:** it continue the statement from condition onward.widely used. It ignored the condition.

**Goto:**- directly execute labelled stmtn. Or labled block. Label is identifier. Single block can be referred with multiple block.

Program

// // IF Statement >>> If...If

// var prompt = require('prompt-sync')();

// var enterString = prompt("Enter Any String:  ");

// if (enterString >= 80)

//     console.log("Congrats!  You Pass the Exam");

// else if (enterString >= 60)

//     console.log("Good! You Are Eligible For Commerce");

// else if (enterString >= 50)

//     console.log("All The Best");

// else if (enterString < 35)

//     console.log("Failed");

// else

//     console.log("Sorry! \tTry Next Time");

// // Nested If

// var prompt = require('prompt-sync')();

// var number = prompt("Enter Any Number:  ");

// if (number == 42) {

//     if (number < 40)

//         console.log("Less");

//     else

//         console.log("Big");

// } else {

//     if (number == 52)

//         console.log("Value is Eqaul");

//     else

//         console.log("Value is NotEqual");

// }

// //Switch Case

// var prompt = require('prompt-sync')();

// var weekNo = Number(prompt("Enter Any Number:  "));

// switch (weekNo) {

//     case 1:

//         console.log("Monday");

//         break;

//     case 2:

//         console.log("Tuesday");

//         break;

//     case 3:

//         console.log("Wednsday");

//         break;

//     case 4:

//         console.log("Thursday");

//         break;

//     case 5:

//         console.log("Friday");

//         break;

//     case 6:

//         console.log("Saturday");

//         break;

//     case 7:

//         console.log("Sunday");

//         break;

//     default:

//         console.log("Enter Valid Number");

//         break;

// }

// //Nested Switch

// var prompt = require('prompt-sync')();

// var alpha = prompt("Enter Character :  ");

// switch (alpha) {

//     case 'a':    // Grouped Statemnet of Switch Case

//     case 'e':

//     case 'o':

//     case 'u':

//     case 'i':

//         console.log("Vowel");

//         break;

//     case 'A':

//         console.log("\*\*\*\*\*\*\*\*\*\*You Are in Capital Alphabate :-- \n Enter Capital Character:  \*\*\*\*\*\*\* \t");

//         var cap = prompt("Enter Character :  ");

//         switch (cap) //Nested Case

//         {

//             case 'A':

//             case 'E':

//             case 'O':

//             case 'U':

//             case 'I':

//                 console.log(`${cap} is Vowel`);

//                 break;

//             default:

//                 console.log(`${cap} Not Vowel`);

//                 break;

//         }

//         break;

//     default:

//         console.log("Not Vowel");

//         break;

// }

// Q) Write Program to check number is Prime Armstrong or Even Odd using Switch Case.

// Q] Check Fibonaccie Series and Palindrome number

//Ternary Opeartor

var number1 = 20;

console.log(number1 == 200 ? "True" : "False");

// Iteration Statement : While For Do

// break, continue, Goto;

// While Loop

let i = 1;

var prompt = require('prompt-sync')();

var number = prompt("Enter Number: ");

while (i <= 10) {

    if (i == 4)

        break;    //1,2,3,4...break;

    console.log(`${number} X ${i} = ` + number \* i);

}

// Do While

do {

    console.log("\nInside the Do Loop");

    console.log(`${number} X ${i} = ` + number \* i);

    i++;

} while (i < 0);

// Q]] Print 1 to 100 Natural Number Using While Loop and Do While Loop?

var name = ["Amit", "Kanchan", "Sahiba", "Sayali", "Prakash", "Imran", "Abhilasha", "Aniket", "Arnav", "Ganesh"];

console.log("Names Are:  ");

for (let i = 0; i < name.length; i++)

    process.stdout.write(name[i] + " ");

// Nested For Lopp

1

12

123

let string = "";

for (let a = 1; a <= 7; a++) {           //check 1st for loop >> true >> next for loop >> once false >> first for loop

    for (let b = 1; b <= a; b++) {

        string += b;

    }

    string += "\n";

}

console.log(string + " ");

// // For Of

const cars = ["BMW", "Volvo", "Mini"];

let text = "";

for (let x of cars) {

    console.log(text += x + " ");  //of

    //console.log(text += cars[x] + " ");   //in

}

// QQ]] Print \* Pyramid using for loop?    Accept user Value??  Used : if , Switch,  while(true)

//   \*

//  \* \*

// \* \* \*

// QQ]] Reverse the Pattern?

// \* \* \*

//  \* \*

//   \*

//QQ]] Combination of Both?

//   \*

//  \* \*

// \* \* \*

// \* \* \*

//  \* \*

//   \*