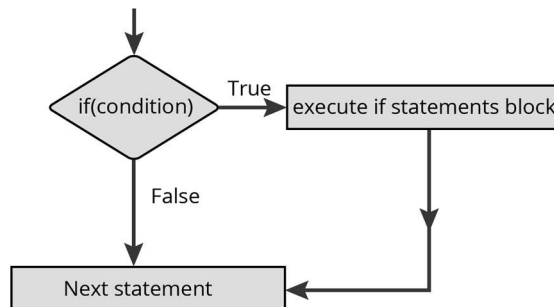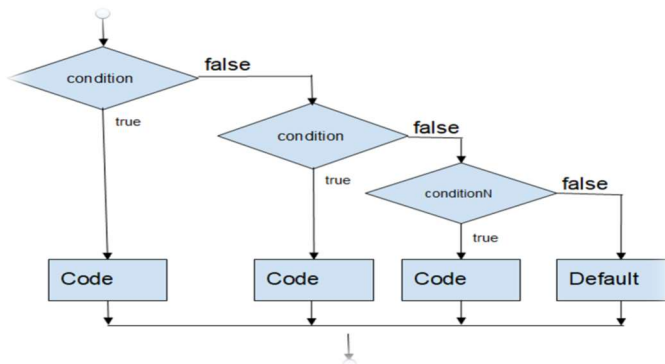# Control Flow

1. if...else

The if...else statement executes a block of code if a specified condition is true. If the condition is false, another block of code can be executed.
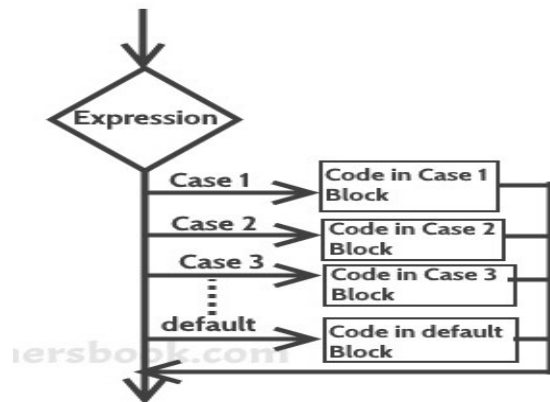

2. if... else Diagram

if...else ladder

The conditional expressions are evaluated from the top downward. As soon as a true condition is found, the statement associated with it is executed, and the rest of the ladder is bypassed. If non of the conditions is true, then the final else statement will be executed. The final else often acts as a default condition; that is, if all other conditions tests fail, then the last else statement is performed. If there is no final else and all other conditions are false then no action will take place.
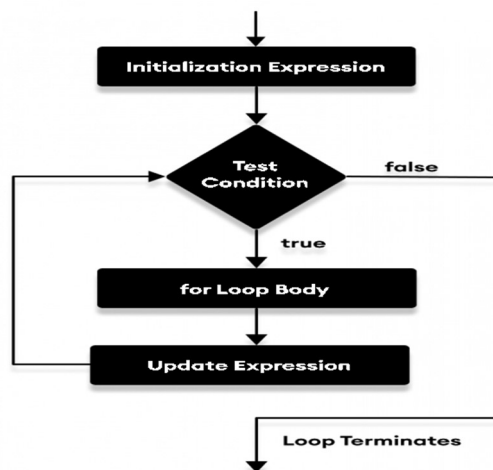
If...Else ladder

1. Switch Case

- The switch statement evaluates an expression, matching the expression's value to a case clause, and executes statements associated with that case, as well as statements in cases that follow the matching case.

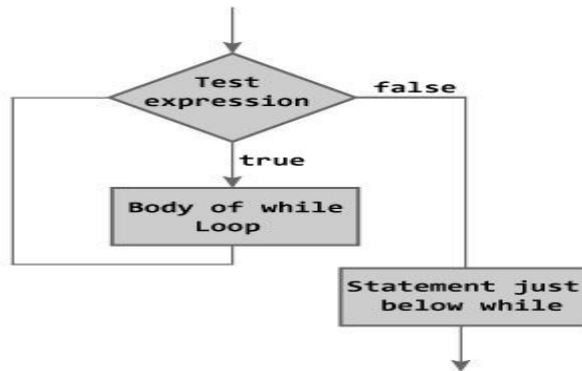## Switch Case Diagram

2. for Loop

A JavaScript for loop executes a block of code as long as a specified condition is true. The condition expression is evaluated on every loop. A loop continues to run if the expression returns true. Loops repeat the same block of code until a certain condition is met.
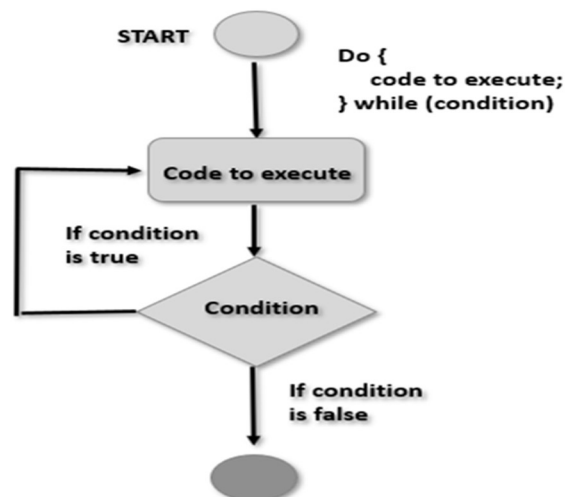

For Loop Diagram

3. while Loop

A JavaScript while loop executes a block of code while a condition evaluates to true. while loops stop executing when their condition evaluates to false. A while loop lets you repeat a block of code multiple times without copy-pasting your code.
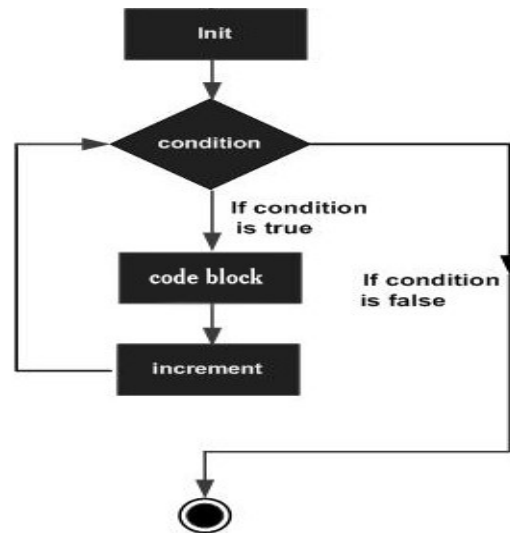

while loop Diagram

4. do while loop

The do... while statement creates a loop that executes a specified statement until the test condition evaluates to false. The condition is evaluated after executing the statement, resulting in the specified statement executing at least once.
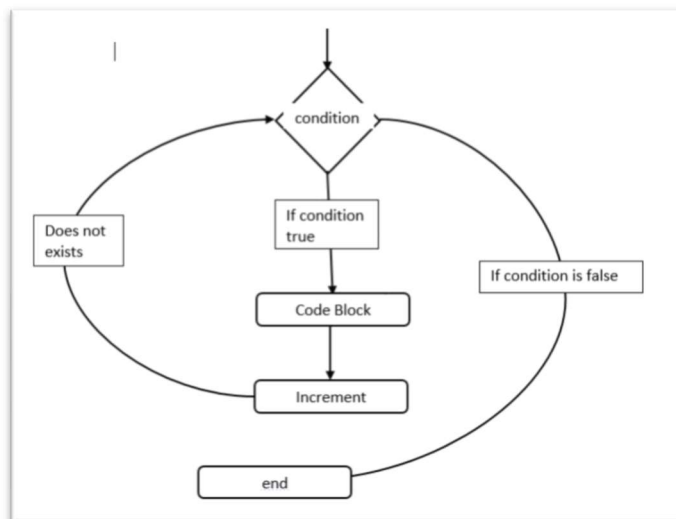

5. for in loop

The for...in loop is similar to for loop but different in its syntax. It iterates through an object's properties. The for...in loop accepts an expression as iterator and iterates through the elements one at a time in sequence. The variable var holds the values of the iteration. The for...in will execute until elements remain in iterators.
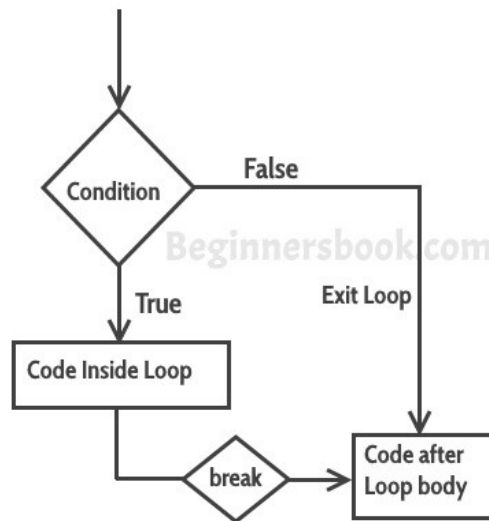
6. for of loop

The for...of statement creates a loop iterating over iterable objects, include built-in String , Array , array-like objects , Typed Array , Map, Set, and user-defined iterables . It invokes a custom iteration hook with statements to be executed for the value of each distinct property of the object.
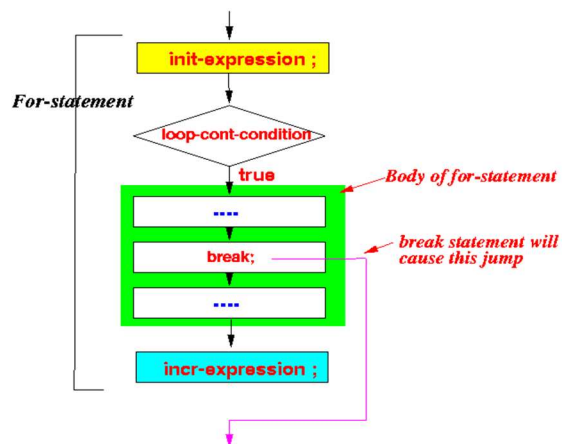

for of loop Diagram

Break

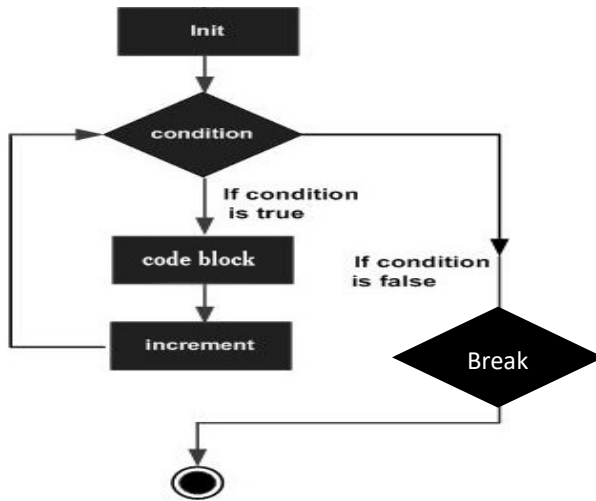It is a break statement or break keyword used to terminate and transfer the control to the next statement when encountered inside a loop or switch case statement.
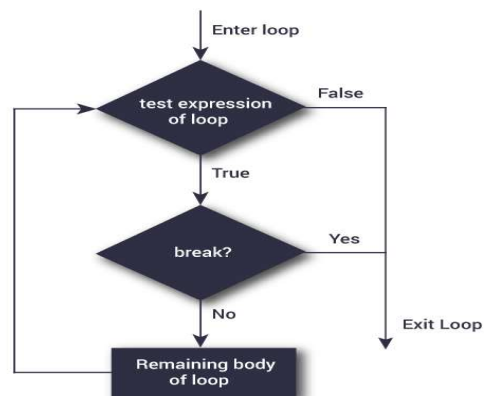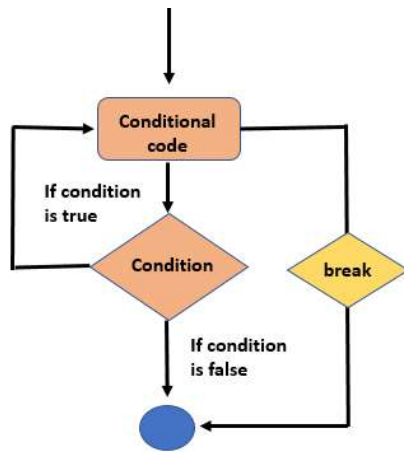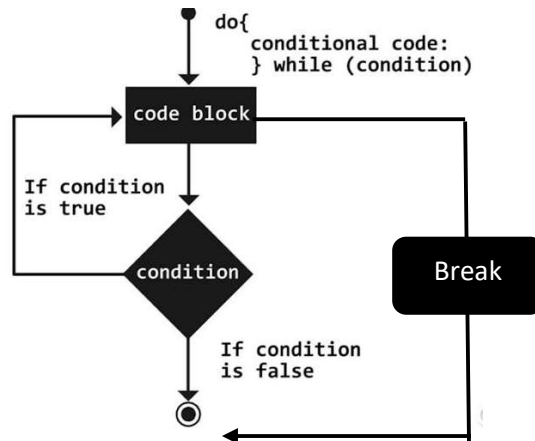

Break Diagram

For

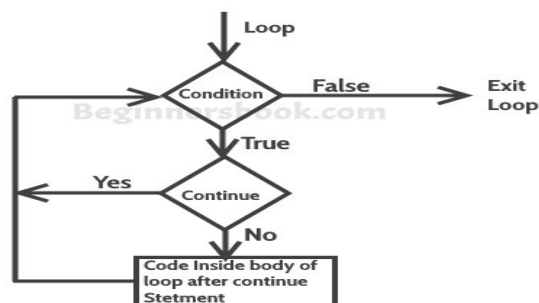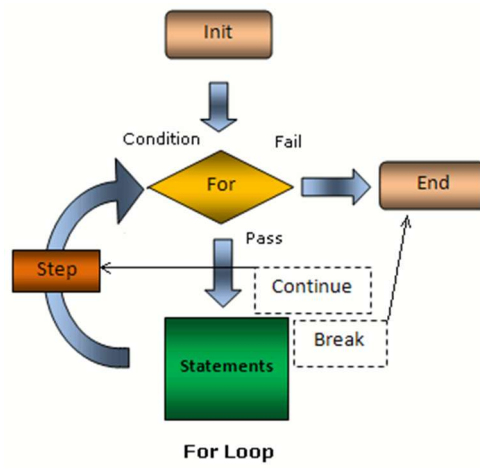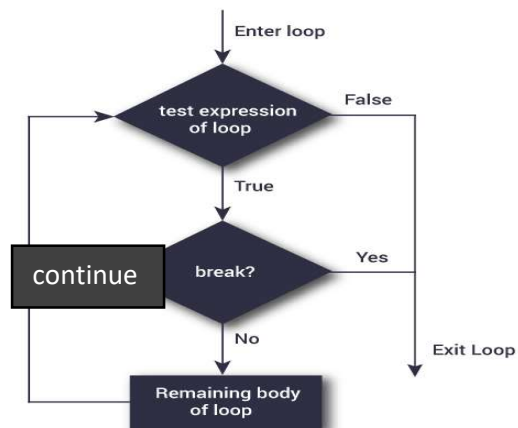## For…in

For…of

while

Do...while

Continue

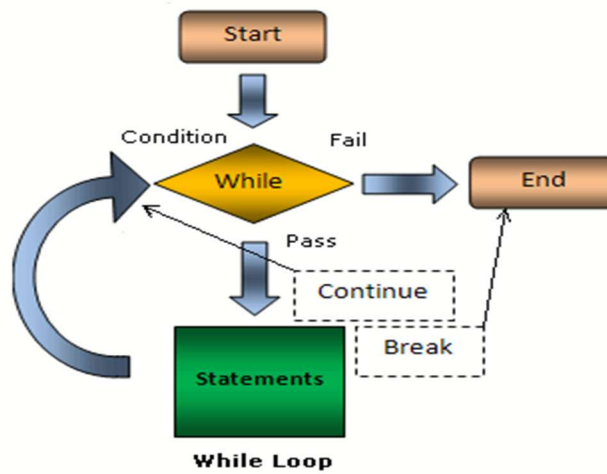It is a statement or keyword used to skip the execution of a particular statement inside the loops.

For

For Loop

For...of

while

While Loop

do while

Do-While Loop