

# TECHNOLOGY



**Caltech** | **Center for Technology & Management Education**

**Full Stack Java Developer**

# TECHNOLOGY



JavaScript



## Control Flows



# Learning Objectives

By the end of this lesson, you will be able to:

- 👁 Identify the categories of control flows
- 👁 Learn to write the syntaxes
- 👁 Learn to write codes in JavaScript



# A Day in the Life of a Full Stack Developer

You are working in an organization and have been assigned a project on the education sector of the government. Your role is to store the data of the students applying for government exams, store their results and display the ones selected for those particular exams. You are also responsible to filter the students and assign them colleges based on their rankings.

Here, you are storing the details of the students in arrays. Now, you want to create a program that would run through all the student rankings and print out the details of the students who are above 75 percent. This can be achieved with the help of looping statements like continue, while, for, and others.

To do so, explore the concepts of control flow statements and their syntaxes.

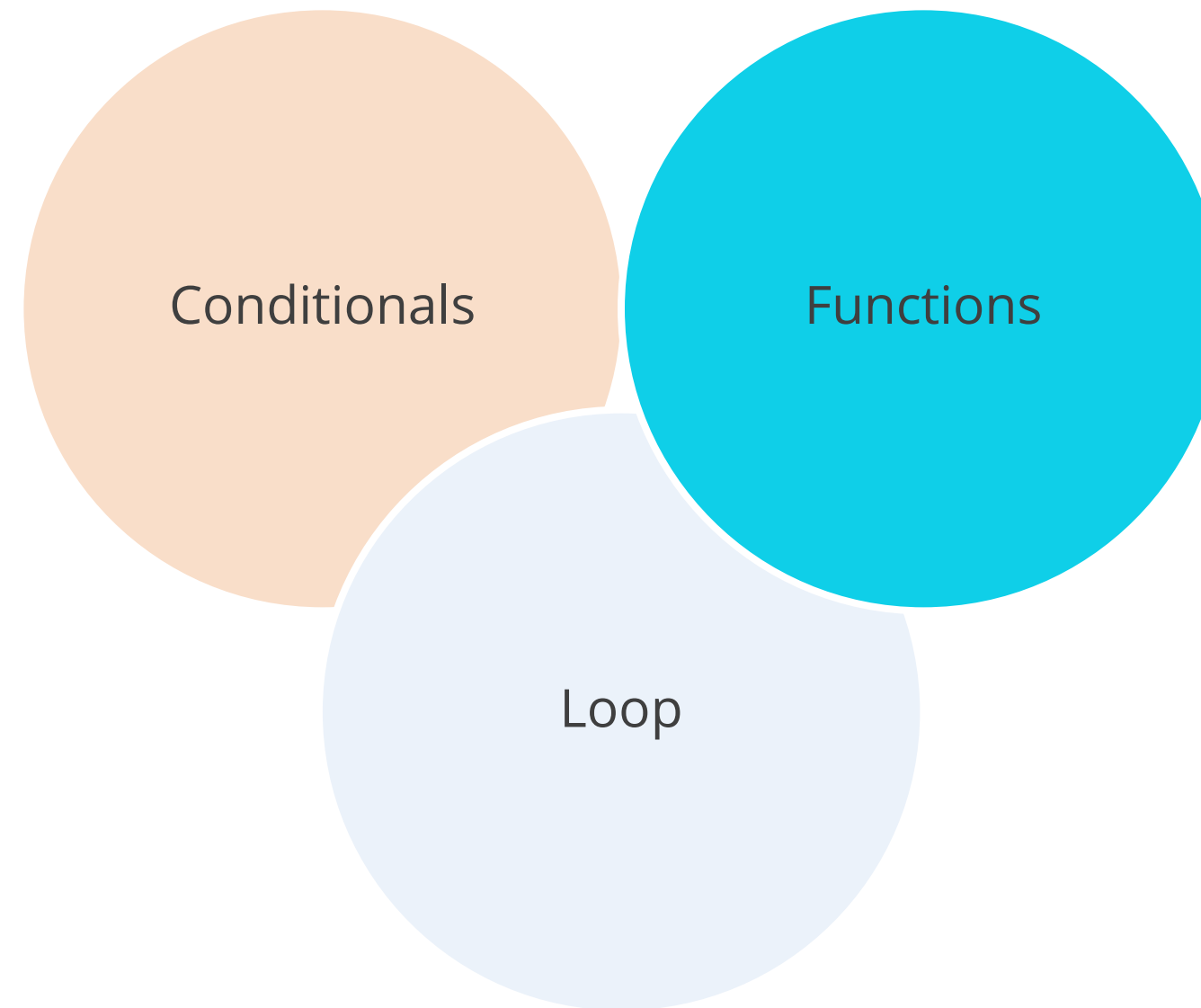




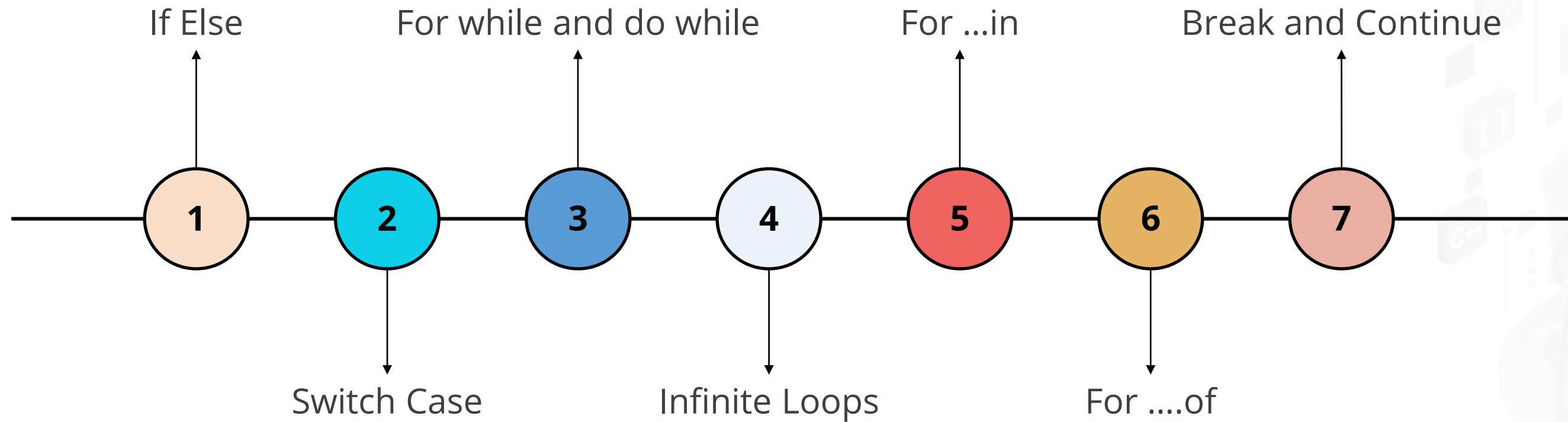
## Control Flows and Its Types

# Control Flows and Its Types

Control flows describe the way a computer executes code from top to bottom.



# Control Flows and Its Types





# If Else

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

```
If (condition)
{
Statement 1
}
else
{
Statement 2
}
```



# Switch Case

This statement evaluates and executes the expression after matching its value to a case clause.

```
Switch (expression)
case condition 1: statement (s)
break ;

case condition 2: statement (s)
break ;

....
case condition n: statement (s)
Break;

default : statement (s)
Syntax and examples to be verified
```



# For while and do while

In JavaScript, both the 'for while' and 'do while loops' are different from each other.

```
while (condition)
{
  //body of the loop
}
```



# For while and do while

1

A while loop evaluates the condition inside the parenthesis ().

2

The code is executed inside the loop if the condition evaluates to true.

3

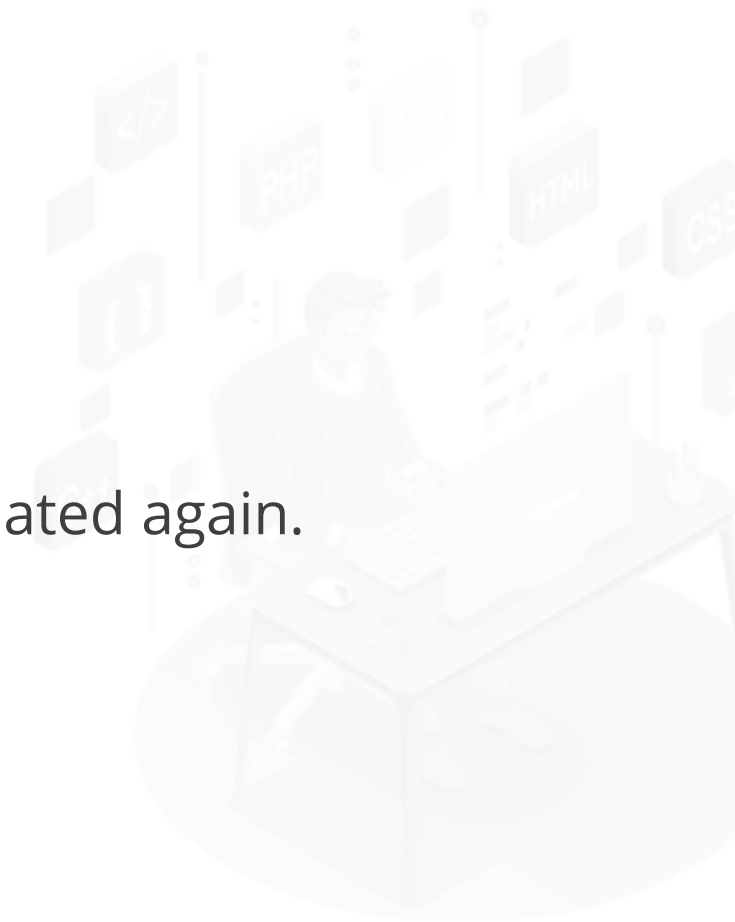
The condition is evaluated again.

4

The process continues until the condition becomes false.

5

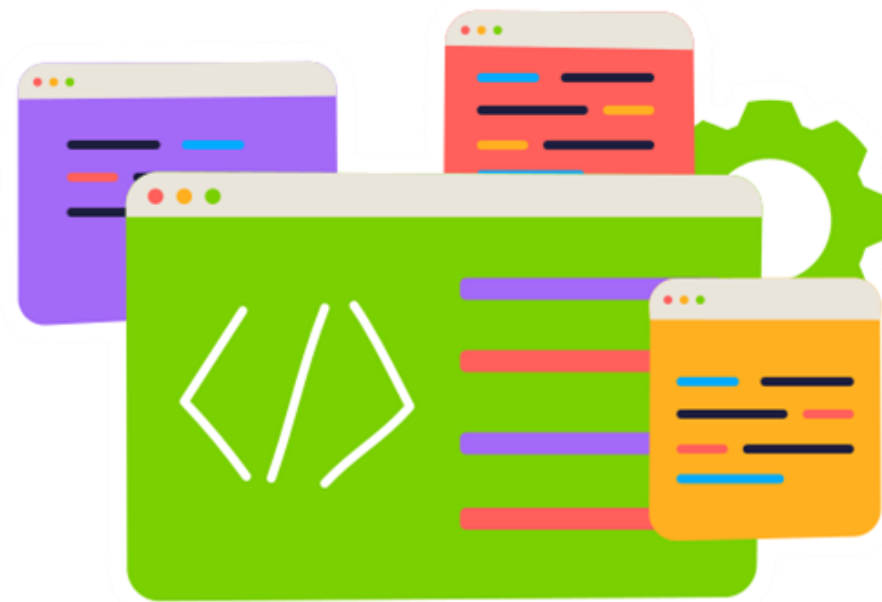
The loop stops when the condition evaluates false.





# Infinite Loop

The infinite or endless loop is a piece of code that never ends because it never reaches the ending condition.



When the whole statement's condition is set to true, one of the most typical endless loops occurs.



# For...in

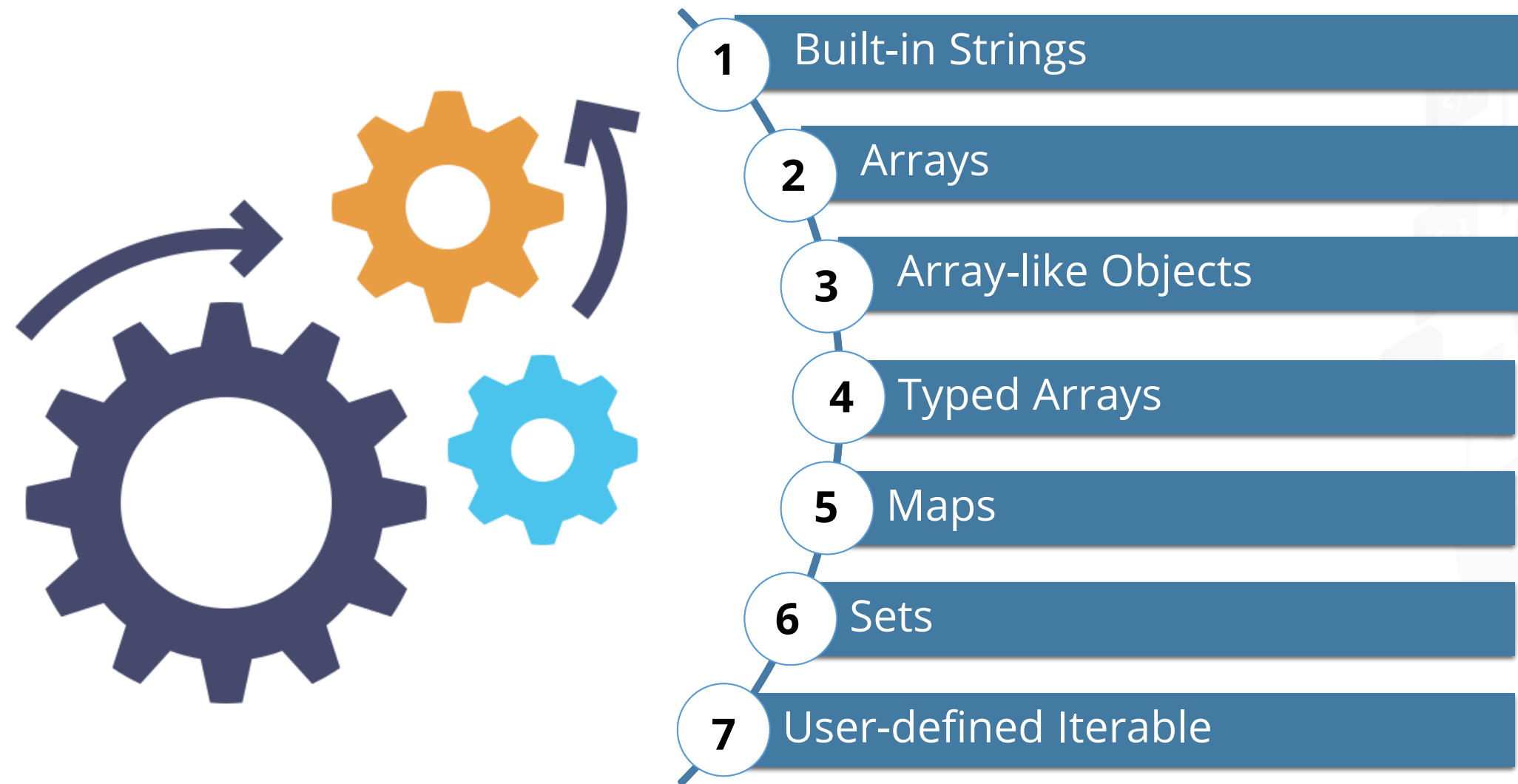
The for...in loop in JavaScript allows iterating over all the property keys of an object.

```
for (key in objects)
{
    //body of for...in
}
```



# For...of

The for...of statement starts a loop that iterates over iterable objects, such as:



# For...of

Syntax:

```
for (element of iterable)  
{  
  //body of for...of  
}
```

Refers to items in  
the iterable

Refers to an  
iterable object



# Break and Continue

It is used to jump out of a loop or switch without a label reference in break statements and any code with a label reference.

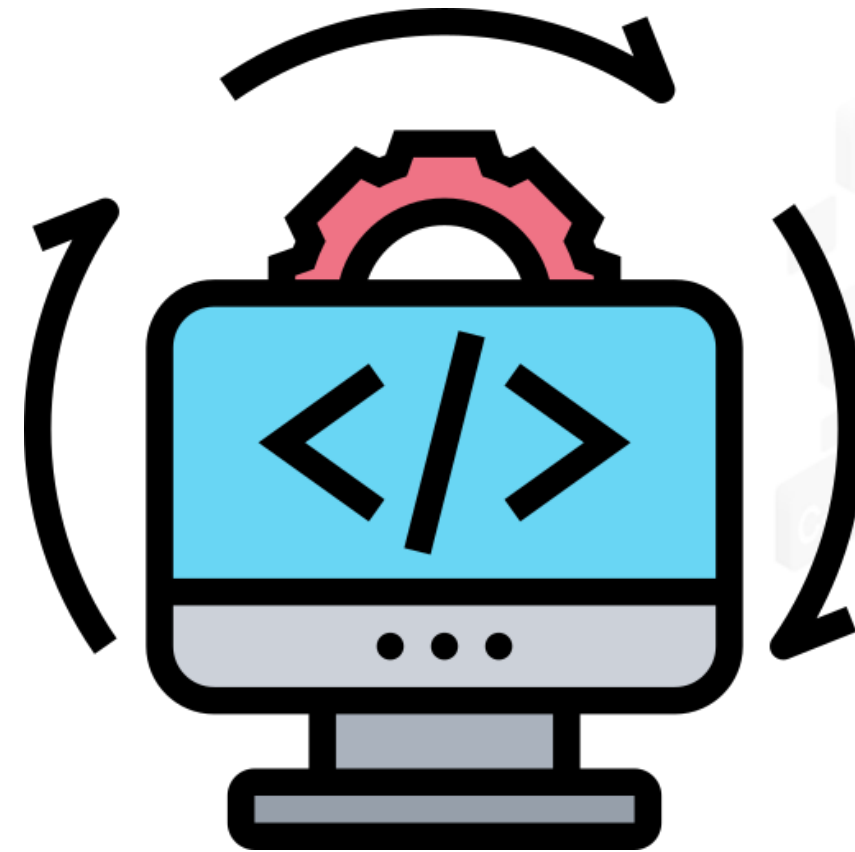
```
Break label name;  
<!DOCTYPE html>  
<html>  
    <head>  
        <title>  
            Break  
statement  
        </title>  
    </head>  
</html>
```



# Break and Continue

Continue statements are used to skip one loop iteration with or without a label reference.

```
<!DOCTYPE html>
<html>
  <head>
    <title>
      Continue
    statement
  </title>
</head>
</html>
```



## Key Takeaways

- Control flows describe the way a computer executes code from top to bottom.
- The switch case statement evaluates and executes the expression after matching its value to a case clause.
- The for...in loop in JavaScript allows one to iterate over all the property keys of an object.
- The continue statement is used to skip one loop iteration with or without a label reference.



# TECHNOLOGY

**Thank You**