



JavaScript Program

Code is the text that makes up programs.

A **computer program** is a collection of instructions that performs a specific task when executed by a computer.

In a programming language, these programming instructions are called **statements**.

A **JavaScript program** is a list of programming **statements**.



JavaScript Statements

Statements are syntax constructs and commands that perform actions.

We've already seen a statement, **alert('Hello, world!')**, which shows the message “**Hello, world!**”.

We can have as many statements in our code as we want. **Statements** can be separated with a **semicolon**.



JavaScript Statements

For example, here we split “Hello World” into two alerts:

```
alert('Hello'); alert('World');
```

Usually, statements are written on separate lines to make the code more readable:

```
alert('Hello');  
alert('World');
```



JavaScript Statements

Semi Colons

A semicolon may be omitted in most cases when a line break exists.

This would also work:

```
alert('Hello');  
alert('World');
```

Here, JavaScript interprets the line break as an “implicit” semicolon. This is called an automatic semicolon insertion.

In most cases, a newline implies a semicolon. But “in most cases” does not mean “always”!



JavaScript Statements

There are cases when a newline does not mean a semicolon. For example:

```
alert(3 +  
      1  
      + 2);
```

The code outputs 6 because JavaScript does not insert semicolons here. It is intuitively obvious that if the line ends with a plus "+", then it is an “incomplete expression”, so the semicolon is not required. And in this case that works as intended.

But there are situations where JavaScript “fails” to assume a semicolon where it is really needed.