Tarea 7: Manejo de Frameworks, Estructuras de Control y Manipulacion de Objetos

What is a Web framework?

The concept framework is used in many areas of software system development, not only in the field of Web applications. We can find frameworks for the development of medical applications, of computer vision, for the development of games, and for any field that may occur. In general, with the term framework, we are referring to a software structure composed of customizable and interchangeable components for the development of an application. In other words, a framework can be considered as an incomplete and configurable generic application to which we can add the last pieces to build a specific application.

Management of JavaScript framework

In JavaScript, interaction with the user is achieved by capturing the events it produces. An event is a user action before which a process can be performed (for example, changing the value of a form, or clicking on a link).

The following table shows the events that can be used with the objects in the JavaScript object model of the Navigator.

Manejador de evento	Objetos para los que está definido
onAbort	*Image*
onBlur	*Button, Checkbox, FileUpload, Layer, Password, Radio, Reset, Select, Submit, Text, Textarea, window*
onChange	*FileUpload, Select, Text, Textarea*
onClick	*Button, document, Checkbox, Link, Radio, Reset, Submit*
onDblClick	*document, Link*
onDragDrop	*window*
onError	*Image, window*
onFocus	*Button, Checkbox, FileUpload, Layer, Password, Radio, Reset, Select, Submit, Text, Textarea, window*
onKeyDown	*document, Image, Link, Textarea*
onKeyPress	*document, Image, Link, Textarea*
onKeyUp	*document, Image, Link, Textarea*
onLoad	*Image, Layer, window*
onMouseDown	*Button, document, Link*
onMouseMove	Ninguno (debe asociarse a uno)
onMouseOut	*Layer, Link*
onMouseOver	*Layer, Link*
onMouseUp	*Button, document, Link*
onMove	*window*
onReset	*Form*
onResize	*window*
onSelect	*Text, Textarea*
onSubmit	*Form*
onUnload	*window*

Control structures:
In programming languages, the control structures allow modifying the execution flow of the instructions of a program.

With the control structures you can:

According to one condition, execute one group or another of sentences (If-Then-Else)
According to the value of a variable, execute one group or another of sentences (Select-Case)
Execute a group of statements while a condition is met (Do-While)
Execute a group of statements until a condition is met (Do-Until)
Run a group of statements a certain number of times (For-Next)
All control structures have a single entry point. The control structures can be classified into: sequential, iterative and advanced control. This is one of the things that allow programming to be governed by the principles of structured programming.

Modern programming languages have similar control structures. Basically what varies between the control structures of the different languages is its syntax; each language has its own syntax to express the structure.

Types of control structures
Some control structures in the Java language.

Background
The term "control structures" comes from the field of computational science. When Java implementations are presented for control structures, we refer to them with the terminology of the Java Language Specification, which refers to it as modern instructions.

Sequential execution
But, usually, the instructions are executed one after the other, in the order in which they are written, that is, in sequence. This process is known as sequential execution.

Transfer of control
In Java, as in other programming languages par excellence, such as C and C ++, the programmer can specify that the following instructions to be executed may not be the following in sequence. This is known as control transfer. Keep in mind that the goto instruction is a reserved word but it is not used or recommended. A well-structured program does not need this instruction.

Of selection
The selection control structures execute a block of instructions or another, or they jump to a subprogram or subroutine according to whether a condition is fulfilled or not.

Control structure
The control structures, also called control statements, allow to make decisions and perform a process repeatedly. These are very important structures, since they are in charge of controlling the flow of a program, according to the requirements of it.

Simple if selection
Main article: Sentences if
It is a control structure that allows redirecting a course of action according to the evaluation of a simple condition, whether false or true.

If the condition is true, the statement block is executed otherwise, the statement block is executed

Manipulation of objects
The Document Object Model (DOM) describes how all elements in an HTML page, such as input fields, images, etc., are related to the highest structure: the document itself. By calling the element by its correct DOM name, we can influence it by means of a programming language, e, g. Javascript, Java, etc.
JavaScript itself has many limitations but many excellent libraries have been developed that have really given dynamic content to web development. jQuery is one of the most essential complements for web development, used in millions of sites throughout the web, since it makes it much easier for us to develop rich applications on the client side, in Javascript, compatible with all browsers.
jQuery is not a language, but a series of functions and methods of Javascript. Therefore, Javascript is the language and jQuery is a library that we can use optionally if we want to facilitate our life when we program in Javascript. Sometimes we can refer to jQuery as a framework or even as a function API, useful in most web projects.