

# Front End Development

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# Lecture 2

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- **Topic:** Frontend Development
- **Grammar:** Punctuation
- **Lexis:** Introduction to Software
- **Speaking:** Business English for Job Interview





**FRONTEND**



**BACKEND**

# Front End

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- In software architecture, there may be many layers between the hardware and end user. Each can be spoken of as having a front end and a back end. The *front* is an abstraction, simplifying the underlying component by providing a user-friendly interface, while the *back* usually handles business logic and data storage.
- In telecommunication, the *front* can be considered a device or service, while the *back* is the infrastructure that supports provision of service.
- A rule of thumb is that the front (or "client") side is any component manipulated by the user. The server-side (or "back end") code usually resides on the server, often far removed physically from the user.

# Understanding the Front-End Stack

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Thanks to browsers and a standardising body (the W3C) we have some pillars in place to give control where possible:

- HTML
- CSS
- JavaScript



# HTML: Hyper Text Markup Language

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HTML provides a **structure** for your web experience.

# HTML: Hyper Text Markup Language

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- HTML is your skeleton. It determines your structure and your posture. A certain level of meaning can be derived from such a structure. Your head always comes first, neck, rib-cage, hips, legs, feet, all the way down to your phalanges.
- The order of *elements* I've just described is your typical human. It may be different for a whale or a tiger. Thus, HTML can be different for blogs, commerce stores or platforms. HTML is all about meaning, and describing to a web browser in a meaningful way what a page is about.



# CSS: Cascading Style Sheet

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# CSS: Cascading Style Sheet

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- CSS is how you look. Hair colour, eye colour, skin tone, hairy, long arms, muscular, toe nail length etc. It's even the way you style your hair, or the makeup you put on to make you look like you.
- Its only purpose is to style what would otherwise be very plain and boring HTML. If we were all walking around in just our skeletons, attraction would be a problem. The same applies to web experiences.

# JavaScript

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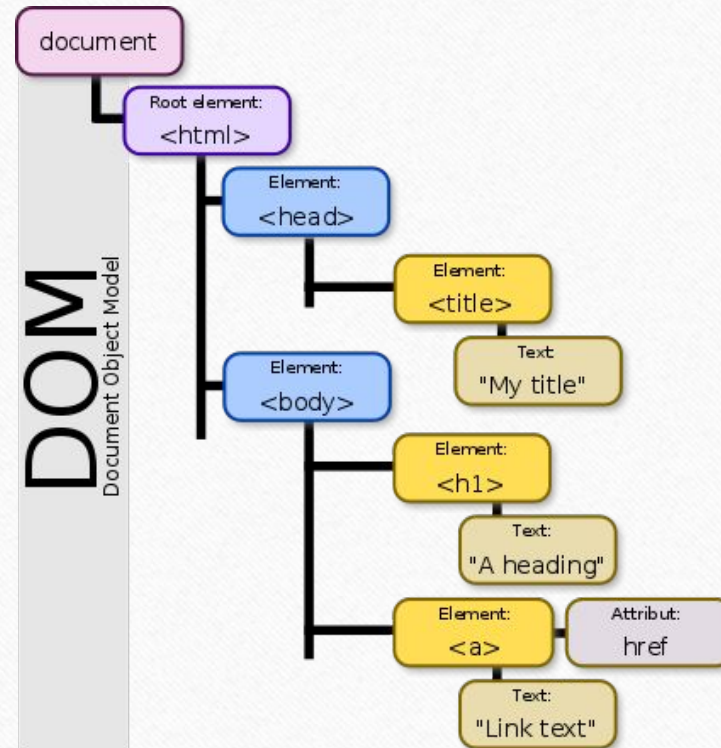
# JavaScript

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- JavaScript is your mannerisms and interactions.
- Anything from clicking your knuckles, to blinking, smiling, coughing, the way you walk, if you decide to skip or not, it's all about interactivity.
- The important thing to remember about JavaScript is that when you close your browser it's all forgotten (generally speaking), so we can think of JavaScript being the interactivity in a website that is going on while you are in a “session” or actively interacting with the website. Think of clicking on popups or navigation dropdowns.

# DOM

- DOM stands for *Document Object Model*.
- The DOM is the living, breathing result of HTML, CSS and JavaScript co-existing in a session activated by the user.
- The DOM model represents a document with a logical tree.





# DOM

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The **Document Object Model (DOM)** is a cross-platform and language-independent application programming interface that treats an HTML, XHTML, or XML document as a tree structure where in each node is an object representing a part of the document

Each branch of the tree ends in a node, and each node contains objects. DOM methods allow programmatic access to the tree; with them you can change the document's structure, style or content. Nodes can have event handlers attached to them. Once an event is triggered, the event handlers get executed.

# Grammar: Punctuation

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perhaps you dont always need to use commas periods colons etc to make sentences clear when i am in a hurry tired cold lazy or angry i sometimes leave out punctuation marks grammar is stupid i can write without it and dont need it my uncle Harry once said he was not very clever and i never understood a word he wrote to me i think ill learn some punctuation not too much enough to write to Uncle Harry he needs some help



# Grammar: Punctuation

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Perhaps you don't always need to use commas, periods, colons etc. to make sentences clear. When I am in a hurry, tired, cold, lazy, or angry I sometimes leave out punctuation marks. "Grammar is stupid! I can write without it and don't need it," my uncle Harry once said. He was not very clever, and I never understood a word he wrote to me. I think I'll learn some punctuation - not too much, enough to write to Uncle Harry. He needs some help!

# Colon (:)

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The colon expands on the sentence that precedes it, often introducing a list that demonstrates or elaborates whatever was previously stated.

## EXAMPLES

- There are many reasons for poor written communication: lack of planning, poor grammar, misuse of punctuation marks, and insufficient vocabulary.
- Peter had an eclectic taste in music: latin, jazz, country and western, pop, blues, and classical.
- He had just one fault: an enormous ego.

The colon is also used to divide the hour from the minutes in writing a time in English.

## EXAMPLES

- 4:15 = "four fifteen"
- 6:45 = "six forty-five"



# Semicolon (;)

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The semicolon is somewhere between a full stop and a comma. Semicolons can be used in English to join phrases and sentences that are thematically linked without having to use a conjunction (example 1 below). Semicolons can also be used instead of commas to separate the items in a list when the items themselves already contain commas (example 2 below).

- I like your brother; he's a good friend.
- Many great leaders, Churchill, leader of Britain during the Second World War; Alexander, the great Emperor and general; and Napoleon, the brilliant French general, had strong characters, which were useful when their countries were at war but which did not serve them well in times of peace.

# QUOTATION MARKS (“”)

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Use quotation marks to cite something someone said exactly. When rephrasing what someone told you, no quotation marks are needed.

- "I'm going to the store now," she said.
- Harry told me, "Don't forget your soccer jersey."
- Harry told me not to forget my soccer jersey.



You may see single or double quotation marks used to mark out idiomatic or unfamiliar expressions.

- I've always thought that he was very annoying, a bit of a 'pain in the neck.'
- I'm not sure what you mean by "custodial care", but I'm sure you will explain it to me.

Quotation marks both single and double are also used for specific purposes in bibliographic references or when citing sources in academic writing.

- "The Migration Flight of the Lesser Tweazle", by Jeremey Adams, [The Bird Spotter Magazine](#), July 2009.

# THE APOSTROPHE IN CONTRACTIONS

Type	Without contractions	Contractions
Using "not"	is not, has not, had not, did not, would not, can not	isn't, hasn't, hadn't, didn't, wouldn't, can't
Using "is"	she is, there is, he is, it is, Mary is, Jim is, Germany is, who is	she's, there's, he's, it's, Mary's, Jim's, Germany's, who's
Using "am"	I am	I'm
Using "will"	I will, you will, she will, we will, they will	I'll, you'll, she'll, we'll, they'll
Using "would"	I would, you would, he would, we would, they would	I'd, you'd, he'd, we'd, they'd
Using "have"	I have, you have, we have, they have	I've, you've, we've, they've
Using "are"	you are, they are, we are	you're, they're, we're



# THE POSSESSIVE APOSTROPHE

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In most cases you simply need to add 's to a noun to show possession:

- a ship's captain
- a doctor's patient
- a car's engine

Plural nouns that do not end in s also follow this rule:

- the children's room
- the men's work
- the women's club

Ordinary (or common) nouns that end in s, both singular and plural, show possession simply by adding an apostrophe after the s.

#### EXAMPLES

- the bus' wheel
- the babies' crying
- the ladies' tennis club
- the teachers' journal

Proper nouns (names of people, cities, countries) that end in s can form the possessive either by adding the apostrophe + s or simply adding the apostrophe. Today both forms are considered correct (Jones's or Jones'), and many large organisations now drop the apostrophe completely (e.g. Barclays Bank, Missing Persons Bureau) when publishing their name.

#### EXAMPLES

- The Hughes' home (or the Hughes's home)
- Mr Jones's shop (or Mr Jones' shop)
- Charles' book (or Charles's book)



# BRACKETS AND PARENTHESSES

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The difference between a 'bracket' and a 'parentheses' can be a bit confusing. Generally, 'parentheses' refers to round brackets ( ) and 'brackets' to square brackets [ ].

Usually we use square brackets - [ ] - for special purposes such as in technical manuals.

Round brackets - ( ) - are used in a similar way to commas when we want to add further explanation, an afterthought, or comment that is to do with our main line of thought but distinct from it.

- The government's education report (April 2005) shows that the level of literacy is rising in nearly all areas.
- I visited Kathmandu (which was full of tourists) on my way to the Himalayas for a trekking expedition.
- You can eat almost anything while travelling in Asia if you are careful to observe simple rules (avoiding unboiled or unbottled water is one of the main rules to be aware of.)

# HYPHENS AND DASHES (-)

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Generally, hyphens are used to join two words or parts of words together while avoiding confusion or ambiguity.

run-down  
up-to-date

There are some cases where hyphens preserve written clarity such as where there are letter collisions, where a prefix is added, or in family relations. Many words that have been hyphenated in the past have since dropped the hyphen and become a single word (email, nowadays).

- bell-like
- anti-nuclear
- great-grandmother
- son-in-law



○ In some cases though, a hyphen does change the meaning of a sentence. ○

- I am thinking of re-covering my sofa (= to put a new cover on it)
- I would like to recover my sofa. (= from someone who has borrowed or stolen it)

Use a hyphen with compound numbers from twenty-one to ninety-nine.

- fifty-one
- eighty-nine

In written fractions place a hyphen between the numerator and denominator except if there is already a hyphen in either the numerator or the denominator.

- two-fifths
- one-third

Use a hyphen when a number forms part of an adjectival compound.

- France has a 35-hour working week.
- He won the 100-metre sprint.
- Charles Dickens was a great nineteenth-century novelist.



# DASHES ( - )

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Dashes can be used to add parenthetical statements or comments in much the same way as you would use brackets. In formal writing you should use the bracket rather than the dash as a dash is considered less formal. Dashes can be used to create emphasis in a sentence.

- You may think she is a liar - she isn't.
- She might come to the party - you never know.



# THE COMMA (,)

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A SERIES OF INDEPENDENT CLAUSES (SENTENCES)

- I met Harry, we went for a swim together, and afterwards Harry went home.

A SERIES OF NOUNS

- For dinner I had soup, fish, chicken, dessert, and coffee.

A SERIES OF ADJECTIVES

A list of adjectives usually requires commas. However, if an adjective is modifying another adjective you do not separate them with a comma (sentence 3).

- She was young, beautiful, kind, and intelligent.
- The house we visited was dark, dreary, and run-down.
- She was wearing a bright red shirt.

### A SERIES OF VERBS

- Tony ran towards me, fell, yelled, and fainted.
- The boy leapt, spun, twisted, and dove into the water.

### A SERIES OF PHRASES

- The car smashed into the wall, flipped onto its roof, slid along the road, and finally stopped against a tree.



## ENCLOSING DETAILS

Use a comma to enclose non-defining relative clauses and other non-essential details and comments. The comma is placed on either side of the insertion.

- China, one of the most powerful nations on Earth, has a huge population.
- Jason's grandmother, who was born in 1930, lived through the Second World War.
- Cats, unlike dogs, do not respect their masters.
- My friend, Jim, likes to go scuba diving.

## PARTICIPIAL PHRASES

- Hearing that her father was in hospital, Jane left work immediately.
- Walking to the bus stop that morning, Sam knew it was going to be a special day.

## TAG QUESTIONS

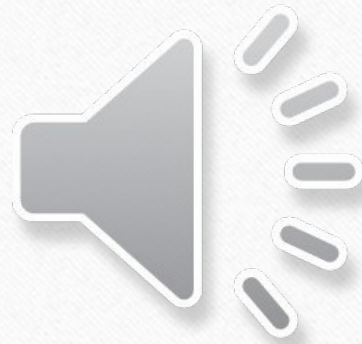
- She lives in Paris, doesn't she?
- We haven't met, have we?

## INTERJECTIONS

- Yes, I will stay a little longer, thank you.
- Wait, I didn't mean to scare you.

# Lexis: Introduction to Software

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**abort**

to end a program or a process before its completion

*When the word processor application crashed, the user had to abort the program and lose all his unsaved changes.*

**bug**

an error in a computer program

*An average developer will create one bug for every 10 lines of code written.*

**closed source**

software in which the license stipulates that the user cannot see, edit, or manipulate the source code of a software program

*I wanted to develop a new feature for the program, but I couldn't because it was closed source.*

**compatible**

capable of being used without modification

*The IBM 360 was the first commercially successful computer family with a wide range of compatible parts.*

**crash**

a computer failure due to faulty hardware or a serious software bug

*The user was advised to reboot the computer after a serious crash in which the computer no longer responded.*

**end user**

a person who uses a product or service on a computer

*Developers must maintain a close relationship with end users if they want to have a successful career.*

**error**

an incorrect action attributable to poor judgment, ignorance, or inattention

*The computer reported a "division by zero" error and automatically aborted the program.*

**execute**

to start a program on a computer

*The program was set to execute every night at midnight.*

**feature**

something a computer program is "supposed" to do; these are often reasons to use a particular program or upgrade to a more recent version

*The man upgraded his copy of Word because of a new feature that allowed him to spell-check documents in Spanish.*

**IDE (integrated development environment)**

an application normally consisting of a source code editor, a compiler and/or interpreter, build-automation tools, and a debugger

*The new employee asked his boss to buy him a license for his favorite IDE because there was none installed on his new company laptop.*



**open source**

a program in which the code is distributed allowing programmers to alter and change the original software as much as they like

*The article stated that many programmers prefer open source solutions because they can modify features and fix bugs without waiting for an upgrade or patch from the manufacturer.*

**programmer**

a person who writes or modifies computer programs or applications

*The software company needed to hire three new programmers to help debug their flagship application.*

**proprietary**

privately developed and owned technology

*Because of proprietary code, you may not modify or redistribute the source code of Windows or Macintosh operating systems.*

**restriction**

a rule or law which limits or controls something

*The video website had content restrictions in place for users under the age of 18.*

**usability**

a measure of how easy or efficient a program is to use

*Back in the day, programmers or salespeople would often be responsible for the user experience, but now we assign that task to a properly trained UX designer.*

# Discussion

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- Have you ever written or modified any software? If so, what were the challenges you faced? If not, why not?
- Name three pieces of software you use frequently. Why do you use them? What would you change about them?
- Pretend you are the world's best programmer and can write computer code as fast as you can think. What kind of software would you write?