Visoko učilište Algebra | Ilica 242 | 10000 Zagreb | Hrvatska
Upisano kod trgovačkog suda u Zagrebu pod MBS: 080664742
Poslovna banka: Zagrebačka banka d.d. Trg bana Josipa Jelačića 10, 10000 Zagreb, Hrvatska
OIB: 14575159920 | matični broj: 2412926 | IBAN: HR7523600001102036972
tel. +385 (0)1 2222 182 | fax. +385 (0)1 2305 004 | info@racunarstvo.hr | www.racunarstvo.hr

Exercise 6 - Encoding, CSS concepts and inheritance

Intro

In this exercise we will learn about page encoding, and why it is important.

Character encoding

Everything we do, write or read on our electronic devices (computer, mobile phones, etc.) is actually just a bunch of 0 and 1 numbers. Same goes with web pages - our pages and every character on the page are translated to binary code.

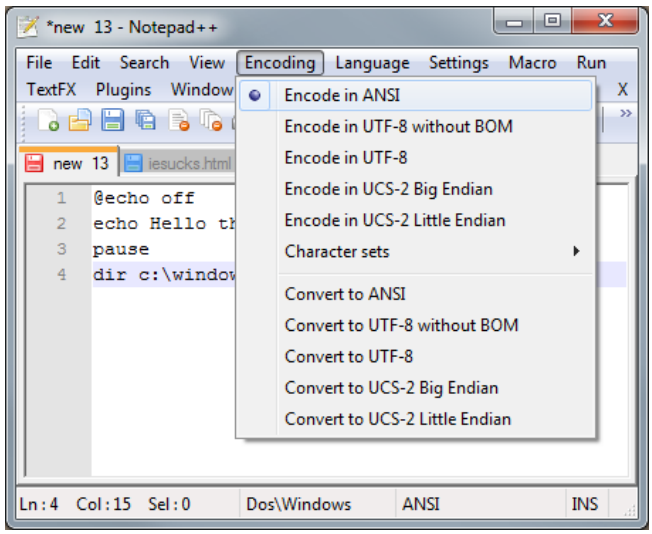
Originally, every character of English alphabet, numbers and special characters were assigned a special code for each character (**ASCII**). And that made it impossible to show any other special alphabet letters (for example, Croatian č, š, ć, ž, French à, é, etc.).

Unicode also is a character set (not an encoding). It uses the same characters like the ASCII standard, but it extends the list with additional characters. UTF-8 is one of the encodings that apply the Unicode character table, and the most popular today to use.

When defining encoding for web pages, we got to do two steps:

- Set encoding in .html file in text editor
- "Tell" our browser which encoding we used to create .html file

Each text editor got a slight different way to set character encoding. In Notepad++ we do it like this:



Visoko učilište Algebra | Ilica 242 | 10000 Zagreb | Hrvatska
Upisano kod trgovačkog suda u Zagrebu pod MBS: 080664742
Poslovna banka: Zagrebačka banka d.d. Trg bana Josipa Jelačića 10, 10000 Zagreb, Hrvatska
OIB: 14575159920 | matični broj: 2412926 | IBAN: HR7523600001102036972
tel. +385 (0)1 2222 182 | fax. +385 (0)1 2305 004 | info@racunarstvo.hr | www.racunarstvo.hr

Select Encode in UTF-8 if your file is blank, or Convert to UFT-8 if you already got some text written.

To make out special characters show correctly inside web browser, we got to add a **meta** tag to the <head> of every html page.

```
    <meta charset="utf-8">
```

The page for second assignment will be in Croatian, so you will be able to see how encoding works in action.

CSS cascading concept

CSS is an acronym of Cascading Style Sheets, which indicates that the notion of the cascade is important. At its most basic level it indicates that the order of CSS rules matter, but it's more complex than that.

What selectors win out in the cascade depends on three factors (these are listed in order of weight — first one being most important):

- Importance (!important keyword)
- Specificity
- Source order

Importance

In CSS, there is a special piece of syntax you can use to make sure that a certain declaration will always win over all others: **!important**.

```
p {
    color: pink !important;
}
```

!important declaration can only be overriden by other **!important** declaration.

Specificity

Specificity is basically a measure of how specific a selector is — how many elements it could match. Element selectors have low specificity. Class selectors have a higher specificity, so will win against element selectors. ID selectors have an even higher specificity, so will win against class selectors.

Visoko učilište Algebra | Ilica 242 | 10000 Zagreb | Hrvatska
Upisano kod trgovačkog suda u Zagrebu pod MBS: 080664742
Poslovna banka: Zagrebačka banka d.d. Trg bana Josipa Jelačića 10, 10000 Zagreb, Hrvatska
OIB: 14575159920 | matični broj: 2412926 | IBAN: HR7523600001102036972
tel. +385 (0)1 2222 182 | fax. +385 (0)1 2305 004 | info@racunarstvo.hr | www.racunarstvo.hr

The only way to win against an ID selector is to use !important.

Source order

If multiple competing selectors have the same importance and specificity, the third factor comes into play to help decide which declaration wins. It is source order — later declarations will win over earlier declarations, and be applied.

CSS inheritance

CSS inheritance is also important to understand to determine what style is applied to an element. The idea is that some property values applied to an element will be inherited by that element's children, and some won't.

For example, it makes sense for font-family and color to be inherited, as that makes it easy for you to set a site-wide base font by applying a font-family to the <html> or <body> element; you can then override the fonts on individual elements where needed. It would be really annoying to have to set the base font separately on every element.

As another example, it makes sense for margin, padding, border, and background-image to **NOT** be inherited. Imagine the styling/layout mess that would occur if you set these properties on a container element and had them inherited by every single child element, and then had to unset them all on each individual element!

Which properties are inherited by default and which aren't is largely down to common sense. If you want to be sure however, you can consult the CSS Reference.