

Lab Guide for CSS

The following tutorial has most of the topics for this guide: <https://www.w3schools.com/css/>

You can use the tutorial as a reference guide but can also read it before starting if you prefer a better grasp of the fundamentals before putting them into practice.

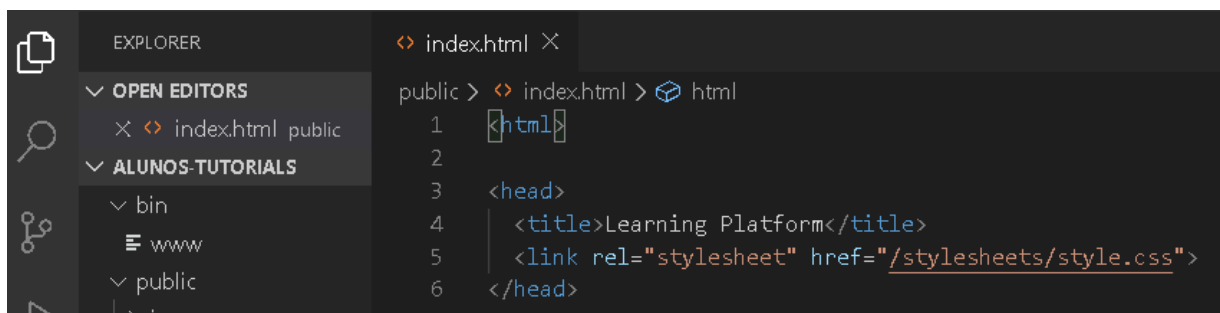
The objective of this guide is to define the visual layout of web pages using some of the main concepts of CSS:

- HTML class and id attributes:
 - https://www.w3schools.com/html/html_classes.asp
 - https://www.w3schools.com/html/html_id.asp
- CSS selectors: https://www.w3schools.com/css/css_selectors.asp
- CSS color and background:
 - Colors: https://www.w3schools.com/css/css_colors.asp
 - Background: https://www.w3schools.com/css/css_background.asp
- CSS box model: https://www.w3schools.com/css/css_boxmodel.asp
 - Borders: https://www.w3schools.com/css/css_border.asp
 - Margin: https://www.w3schools.com/css/css_margin.asp
 - Padding: https://www.w3schools.com/css/css_padding.asp
 - Height/Width: https://www.w3schools.com/css/css_dimension.asp
- CSS Text Formatting:
 - Text: https://www.w3schools.com/css/css_text.asp
 - Fonts: https://www.w3schools.com/css/css_font.asp
- CSS for specific elements:
 - Links: https://www.w3schools.com/css/css_link.asp
 - Lists: https://www.w3schools.com/css/css_list.asp
 - Tables: https://www.w3schools.com/css/css_table.asp
- CSS display property: https://www.w3schools.com/css/css_display_visibility.asp
 - Flex: https://www.w3schools.com/css/css3_flexbox.asp
 - Grid: https://www.w3schools.com/css/css_grid.asp
 - More on grids: <https://css-tricks.com/snippets/css/complete-guide-grid/>
- CSS media queries: https://www.w3schools.com/css/css3_mediaqueries.asp

NOTE: The topics were presented in the order they will be approached in the guide which is not always the same used in the w3shools tutorial.

Open the project that you used for the HTML lab guide (“alunos” project unless you choose another name). Notice you will need to finish the HTML guide before making this one.

In the “public” folder you already have a “style.css” file, inside the “stylesheets” subfolder. This file is already “connected” to the index.html file using the “link” tag:

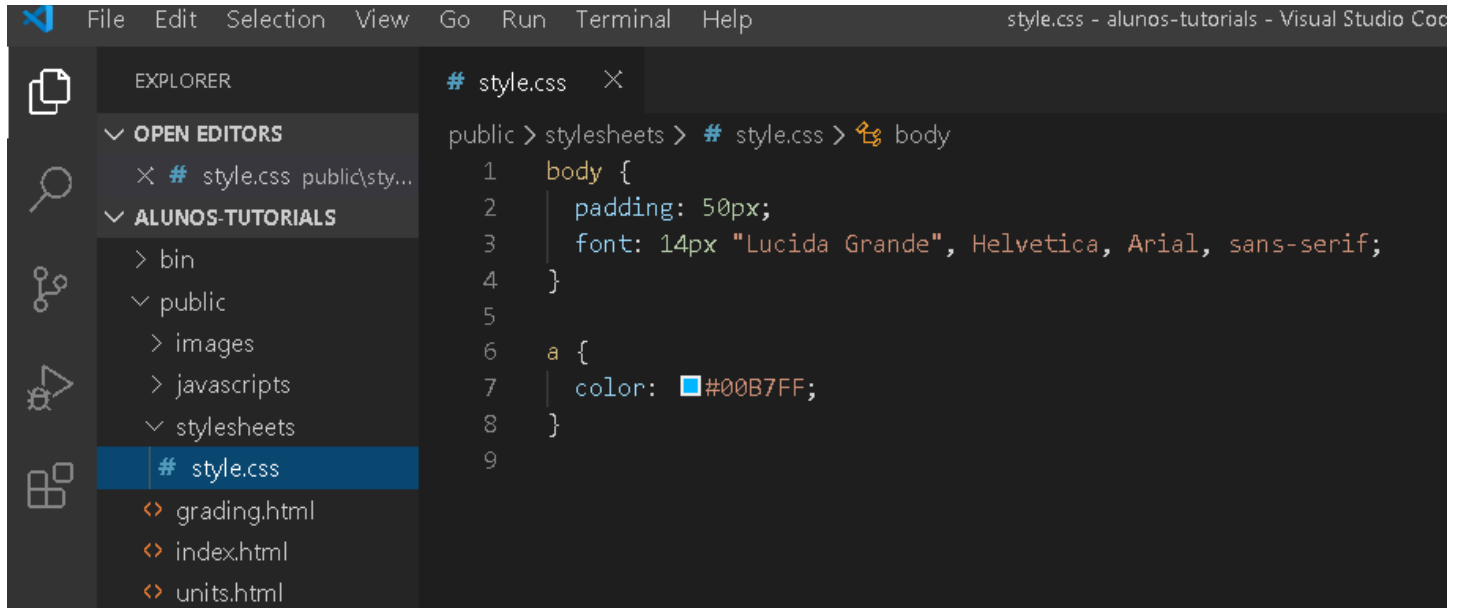


The screenshot shows a code editor with two panels. The left panel, titled 'EXPLORER', shows a file tree with 'ALUNOS-TUTORIALS' expanded, containing 'bin', 'www', 'public', and 'images' folders. The right panel shows the 'index.html' file with the following code:

```
<?xml version="1.0" encoding="UTF-8" ?>
<html>
  <head>
    <title>Learning Platform</title>
    <link rel="stylesheet" href="/stylesheets/style.css">
  </head>
  <body>
  </body>
</html>
```

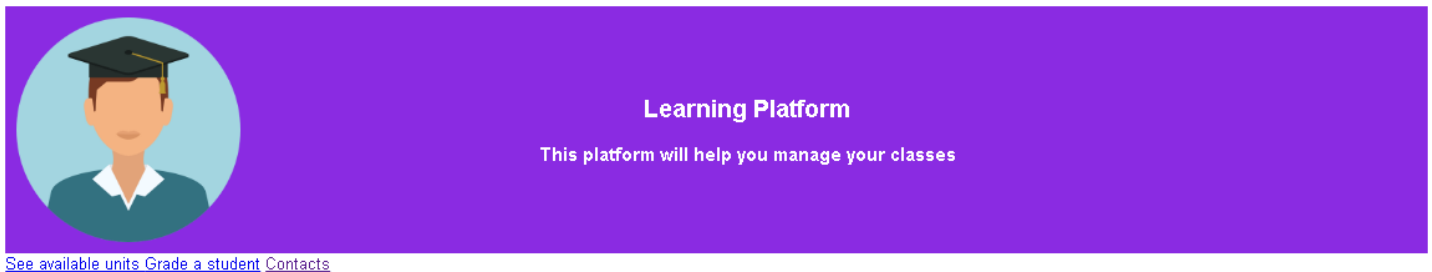
The style.css file:

NOTE: we will keep the declarations for the body and add new ones, but you can delete the rule for the anchor.



```
# style.css
public > stylesheets > # style.css > body
1  body {
2      padding: 50px;
3      font: 14px "Lucida Grande", Helvetica, Arial, sans-serif;
4  }
5
6  a {
7      color: #00B7FF;
8  }
9
```

1 We will start with the header. This is the result we want:



What we need to do:

- Change the header display type to **flex** so elements are shown side by side. Only inside this header.
- Change the width of the image for 200px. Make sure you only change for this picture (use an id, you will need to add it to the HTML).
- Change the width of the section that holds the text to the remaining space and align the text to the center
 - **NOTE:** Both texts must be inside a section so that we can place them as a block at the side of the image. If you have not done so, change the HTML.
- In the image the background color is blueviolet and the text is white (but you can choose other colors, just try to change them from black and white).
- Change the padding so there is some space around the image with color.
- Finally, center the text vertically. For that you need to define the item alignment of **flex**.

2 Next we will change the display of the footer. This is the result we want:



The colors are the same as for the header. Try not repeating the color names by applying the declarations to both blocks. The advantage is that we can easily change both block colors at the same time if we need to.

The text is not centered, just padded, but the padding on the sides is not the same the top and bottom.

3 Next we will change the display of the navigation bar bellow the header. This is the result we want for now:



The colors are the same as for the header so you can use the rule you made before and add the selector for this block.

What more do we need to do:

- Use flex to place the links in a column
- Changing the color of the text inside the nav does not change the color of the link. You need to apply a rule for the links, but just the ones inside the nav so the ones on the footer do not change.
- The nav also has some padding
- It also has margins. Not on the left, but on the top, bottom and right. The right margin looks strange now but it will make sense later when we place other blocks side by side.

4 For the main block of text we only need to change the color of the text to the color with hexadecimal value #333333 (what color will this be?).

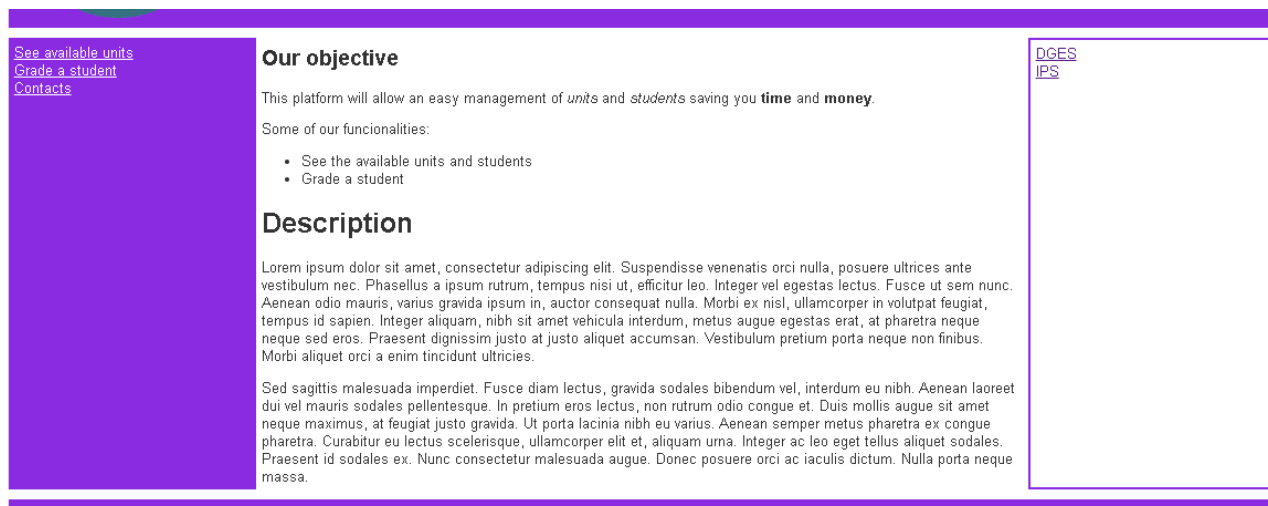
5 For the block with link of related topics (IADE and DGES) this will be the result we want:



It is very similar to the navigation bar (flex, colors, margins and padding) but the colors are inverted, it has a border (same color has the text), and this time it has margin on the left but not on the right (still has margins top and bottom).

Remember that you need to set the color to the links and not to the general text. If you prefer you can also remove the underline.

6 Finally we need to organize the blocks so that we have the navigation bar, the main text block and the related topics block side by side (by this order). The result we want is this (removed some paragraphs to make it easier to see):




You could achieve this result using flex if they were inside some container (they probably are not because in terms of content there is no reason for it).

We should not force changes to the HTML because of presentation if we do not need them (most of the times we only need to add some classes or ids). But we do not need to make changes if we use grid display:

- Set grid display for the element that holds all 5 blocks we just made (no way to do only for these 3).
 - Blocks made: Header, footer, navigation bar, main text, related topics
- Divide the grid into 3 columns, where header and footer will occupy all 3 columns (use grid template areas).
- Navigation and related topics occupy 20% of the width and the main text the rest (use grid template columns).

A final picture of the global (we also removed some of the paragraphs to reduce the picture) :



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This platform will allow an easy management of *units* and *students* saving you **time** and **money**.

Some of our functionalities:

- See the available units and students
- Grade a student

Description

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Suspendisse venenatis orci nulla, posuere ultrices ante vestibulum nec. Phasellus a ipsum rutrum, tempus nisi ut, efficitur leo. Integer vel egestas lectus. Fusce ut sem nunc. Aenean odio mauris, varius gravida ipsum in, auctor consequat nulla. Morbi ex nisl, ullamcorper in volutpat feugiat, tempus id sapien. Integer aliquam, nibh sit amet vehicula interdum, metus augue egestas erat, at pharetra neque neque sed eros. Praesent dignissim justo at justo aliquet accumsan. Vestibulum pretium porta neque non finibus. Morbi aliquet orci a enim tincidunt ultricies.


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DGES
IPS

Contact us by email (admin@ensino.pt) or telephone ([2112312312](tel:2112312312))

7 Final details. Now you can make your modifications. For instance, the space between links in the navigation and related topics is very small and you can increase it.

8 Use the same CSS for the units.html and see the results (you will need to add the same id to the logo). Should be something like this (if you applied directly to the tags and not used classes or ids):



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Learning Platform

Subject List

Name	ECTS	Year	Semester
Bases de Dados e Análise de Informação	6	2	1
Biologia Celular e Molecular	6	2	1
Desenvolvimento de Produtos Médicos	6	2	1
Eletrónica Analógica	6	2	1
Estatística para a Saúde	6	2	1
Blomaterials	6	2	2
Dispositivos Médicos I	6	2	2
Eletrónica para Aquisição e Processamento de Sinais Médicos	6	2	2
Equipamentos de Saúde	6	2	2
Telemedicina	6	2	2

Name

ECTS

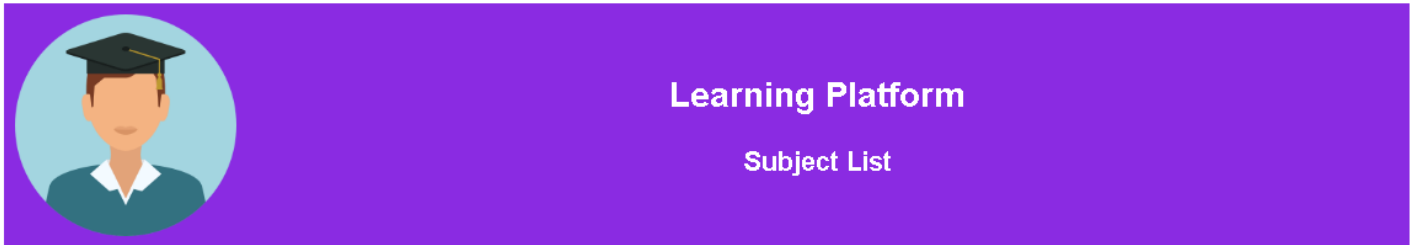
Year

Semester

9 Create a new CSS file, make the link to that file after the link of the initial CSS and create the rules to format the table appearance. You will now have 2 CSS files cascading (Cascading Style Sheets), the first CSS applies the rules and then the second can add rules or change the previous ones.

Increase the size of the letter in the header, increase the margin for the table and format the table to achieve the result in the picture bellow. You can see some of the rules for tables here: https://www.w3schools.com/css/css_table.asp

NOTE: The examples in the link use the id of the table, you can do the same or apply to all tables or to all tables that have a defined class.



Name	ECTS	Year	Semester
Bases de Dados e Análise de Informação	6	2	1
Biologia Celular e Molecular	6	2	1
Desenvolvimento de Produtos Médicos	6	2	1
Eletrónica Analógica	6	2	1
Estatística para a Saúde	6	2	1
Biomateriais	6	2	2
Dispositivos Médicos I	6	2	2
Eletrónica para Aquisição e Processamento de Sinais Médicos	6	2	2
Equipamentos de Saúde	6	2	2
Telemedicina	6	2	2
Name	ECTS	Year	Semester