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Creating websites

Presentation made by Techniczne Zaklady Naukowe within the project „Collaborations that increase interest in and quality of technical education”

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About us

Techniczne Zaklady Naukowe in Dabrowa Gornicza is biggest technical school in the region. We educate students on following subjects that we currently have in our offer: IT, programming, electronics, rovotics, electric, automatic, mechanic, advertising.

We currently have 4 ongoing projects. Since 2010, we have completed dozen of them, obtaining funds in amount of 5 million EUR from r.g. Erasmus+, Ministry of Education and Science, Norway grants, regional funds of Silesia Region and European Funds.

Together with the FERS programme we create the European dimension of the school with the number 2022-1-PL01-KA122-VET-000073442 implemented in the framework of the project "Foreign educational mobility of students and graduates as well as vocational training staff" carried out under the program European Funds for Social Development 2021-2027 co-financed by the European Social Fund - Vocational Education and Training sector.

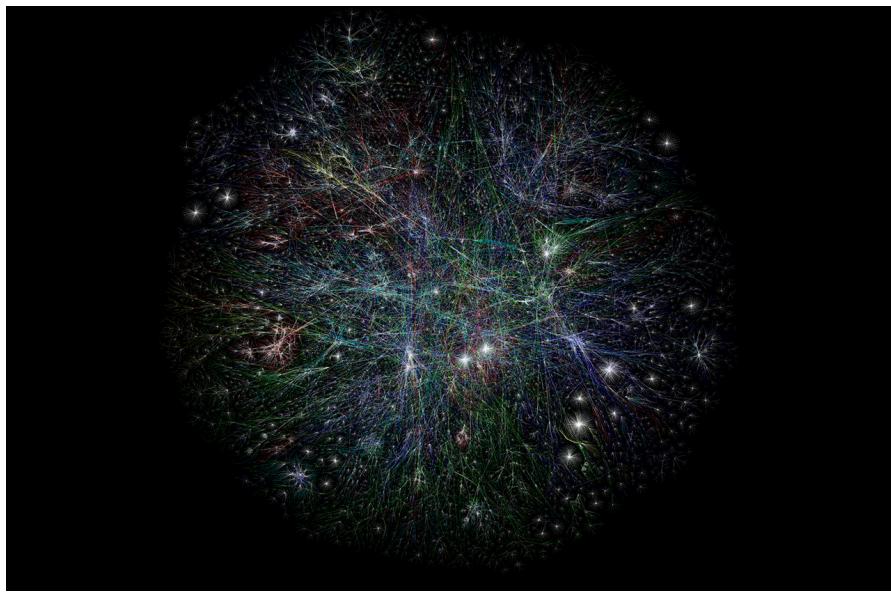
History of internet (in very speed and simplified version).

WHAT IS THE INTERNET?

The Internet (or internet) is the global system of interconnected computer networks that uses the Internet protocol suite (TCP/IP) to communicate between networks and devices. It is a network of networks that consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies.

The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and file sharing.

VISUALIZATION OF THE INTERNET



Like any other map, The Internet map is a scheme displaying objects' relative position; but unlike real maps (e.g. the map of the Earth) or virtual maps (e.g. the map of Mordor), the objects shown on it are not aligned on a surface. Mathematically speaking, The Internet map is a bi-dimensional presentation of links between websites on the Internet. Every site is a circle on the map, and its size is determined by website traffic, the larger the amount of traffic, the bigger the circle. Users' switching between websites forms links, and the stronger the link, the closer the websites tend to arrange themselves to each other.

HISTORY OF THE INTERNET

The inception of the Internet dates back to the 1960s when it served as a means for government researchers to exchange information. During that era, computers were bulky and stationary. Accessing data stored in a specific computer required individuals to either physically visit the computer's location or rely on magnetic computer tapes sent via the traditional postal system.

The Internet's official birth is marked as January 1, 1983. Before this milestone, diverse computer networks lacked a standardized method to communicate. The creation of a new communication protocol named Transfer Control Protocol/Internet Protocol (TCP/IP) resolved this issue. TCP/IP facilitated communication among various types of computers across different networks. ARPANET and the Defense Data Network transitioned to the TCP/IP standard on January 1, 1983, marking the birth of the Internet. This shift enabled the connection of all networks through a universal language.

and now a short video: <https://youtu.be/h8K49dD52WA>

HISTORY OF HTML

HTML stands for HyperText Markup Language. It is a standard markup language for web page creation. It allows the creation and structure of sections, paragraphs, and links using HTML elements (the building blocks of a web page) such as tags and attributes.

Where HTML is used?

HTML has a lot of use cases, namely:

- Web development. Developers use HTML code to design how a browser displays web page elements, such as text, hyperlinks, and media files.
- Internet navigation. Users can easily navigate and insert links between related pages and websites as HTML is heavily used to embed hyperlinks.
- Web documentation. HTML makes it possible to organize and format documents, similarly to Microsoft Word.

Fun fact

It's also worth noting that HTML is not considered a programming language as it can't create dynamic functionality. It is now considered an official web standard. The World Wide Web Consortium (W3C) maintains and develops HTML specifications, along with providing regular updates.

Quick history of HTML

let's watch it in a video: <https://youtu.be/Sli1GpS8s1I>

SOFTWARE

Software is a set of computer programs and associated documentation and data. Software often includes associated software documentation. This is in contrast to hardware, from which the system is built and which actually performs the work.

WEBSITE EDITORS BASED ON THE CODE

Notepad

Windows Notepad is a simple text editor for Windows; it creates and edits plain text documents. First released in 1983 to commercialize the computer mouse in MS-DOS, Notepad has been part of every version of Windows ever since.

Notepad++

Notepad++ is a free source code editor and Notepad replacement that supports several languages. Running in the MS Windows environment, its use is governed by GNU General Public License. Based on the powerful editing component Scintilla, Notepad++ is written in C++ and uses pure Win32 API and STL which ensures a higher execution speed and smaller program size.

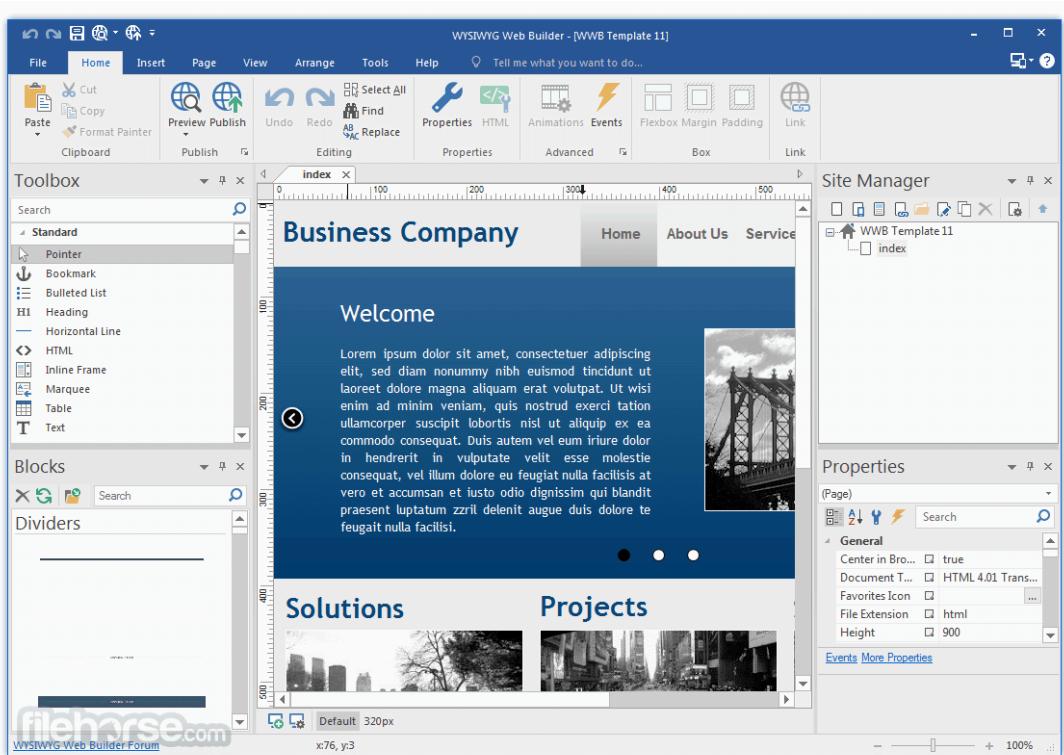
Visual Studio

Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs including websites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.

WEBSITE EDITORS BASED ON THE GRAPHIC

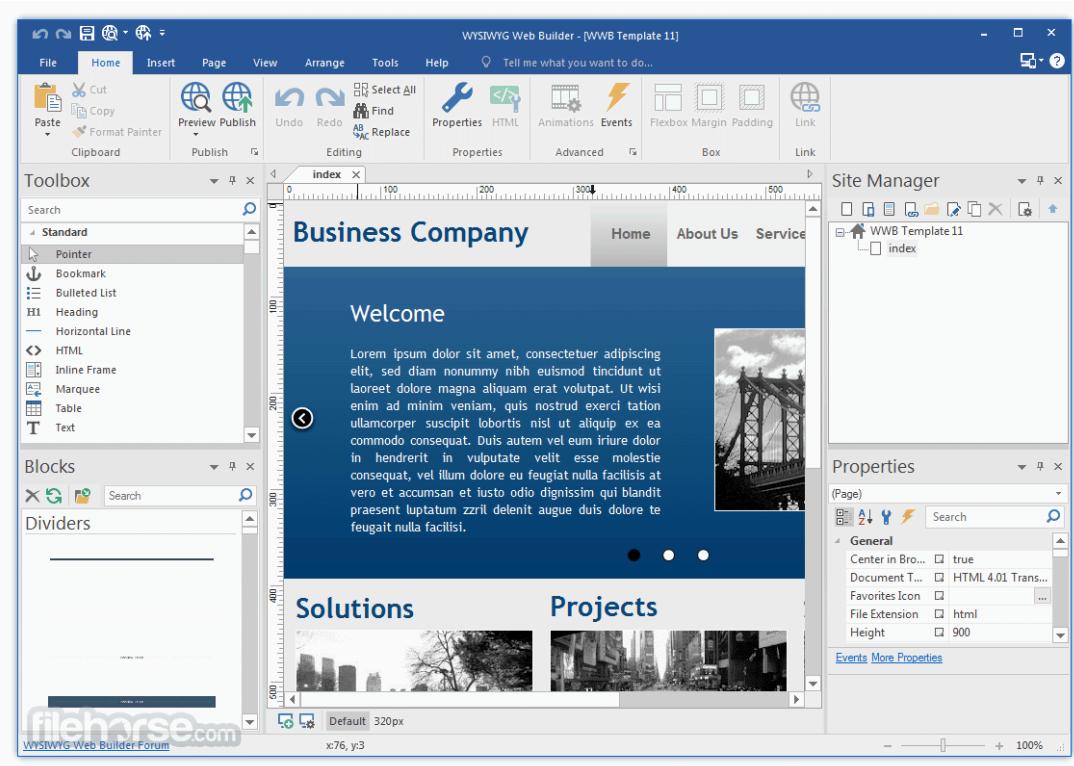
WYSIWYG

WYSIWYG stands for "What you see is what you get".



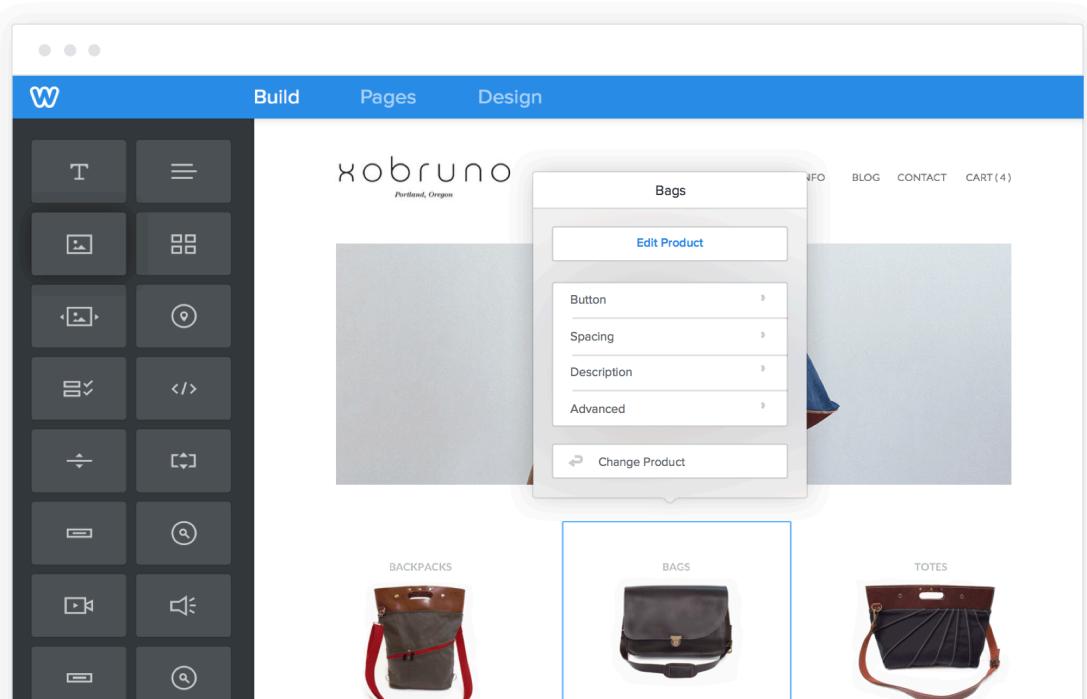
WYSIWYG (pronounced wiz-ee-wig) is a type of editing software that allows users to see and edit content in a form that appears as it would when displayed on an interface, webpage, slide presentation or printed document. WYSIWYG editors enable users to manipulate the content or layout without having to type any commands. For example, when users write a document using a word processor, it uses WYSIWYG, as what they create, format and edit is replicated in the printed document or PDF file.

Wysiwyg Web Builder



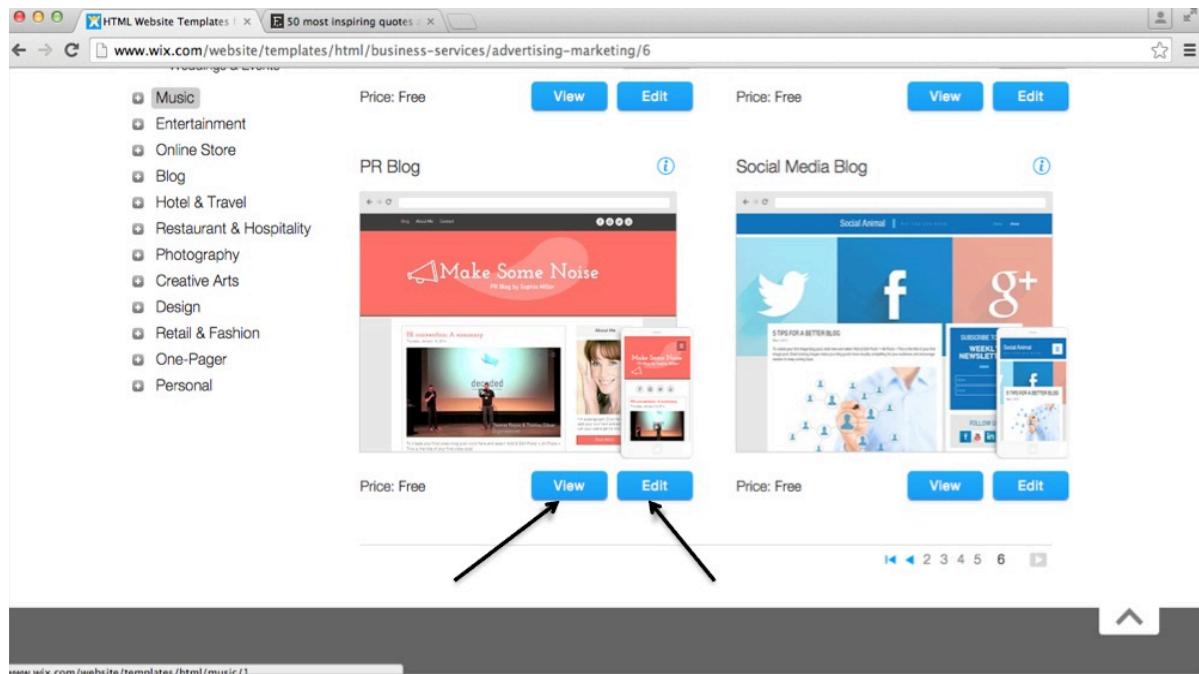
Web Builder is a WYSIWYG (What-You-See-Is-What-You-Get) program used to create web pages. WYSIWYG Web Builder is a Web site building tool that helps you design and build full-featured Web sites without having to learn HTML. The program generates HTML tags while you point and click on. WYSIWYG Web Builder has a huge set of tools for both beginners and professional designers/developers.

Weebly



Weebly is an easy-to-use site builder that lets you create attractive, responsive-design sites, blogs, and online stores, but it could use more themes and a better photo repository.

Wix



Wix is an all-in-one website builder that lets you quickly create attractive websites, even if you have no design or coding experience. Wix is popular among bloggers, entrepreneurs and small business owners. If you're looking to build a website without a large budget, Wix's affordable plans are worth a closer look.

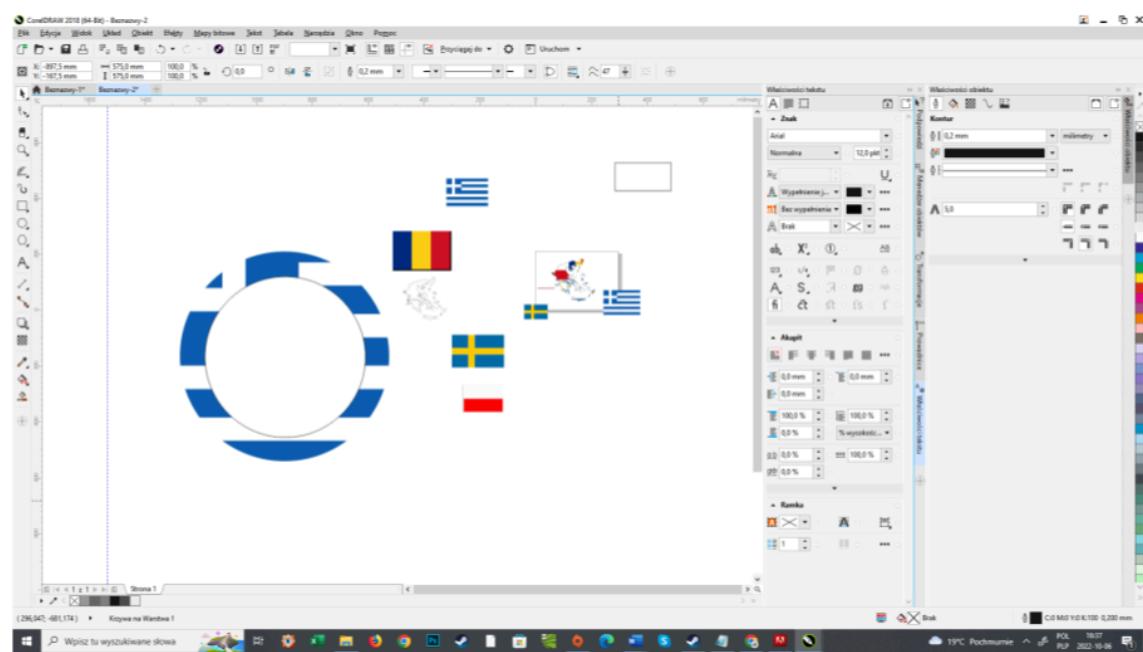
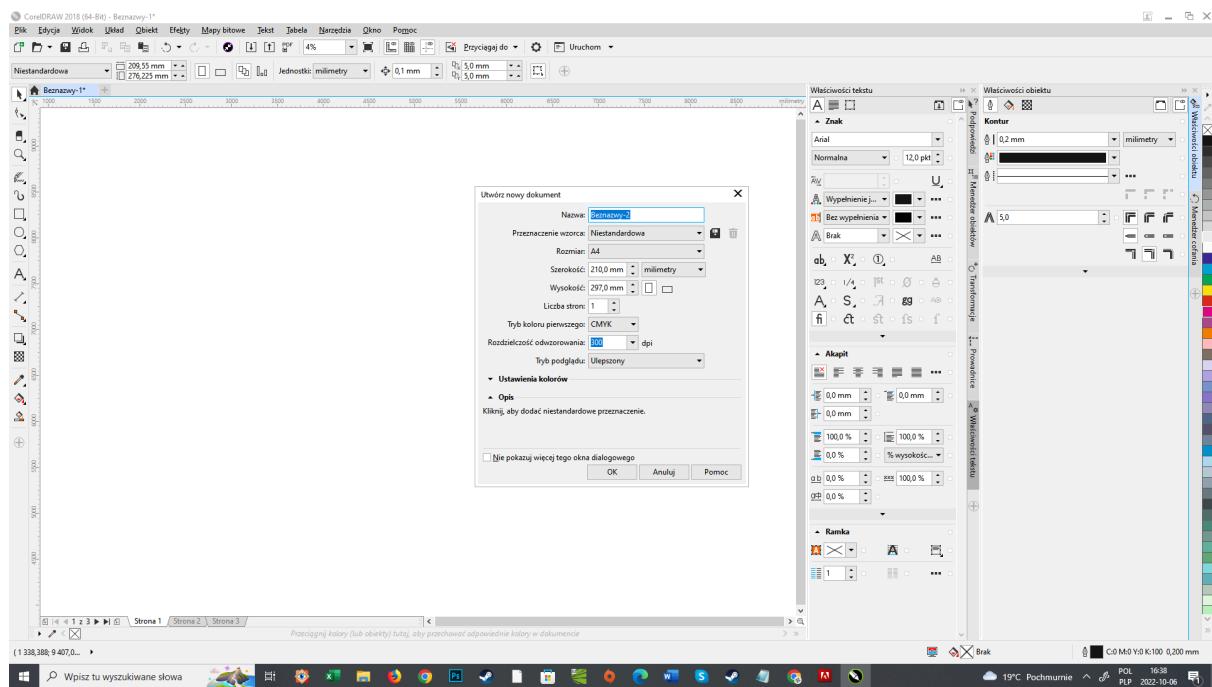
CMS

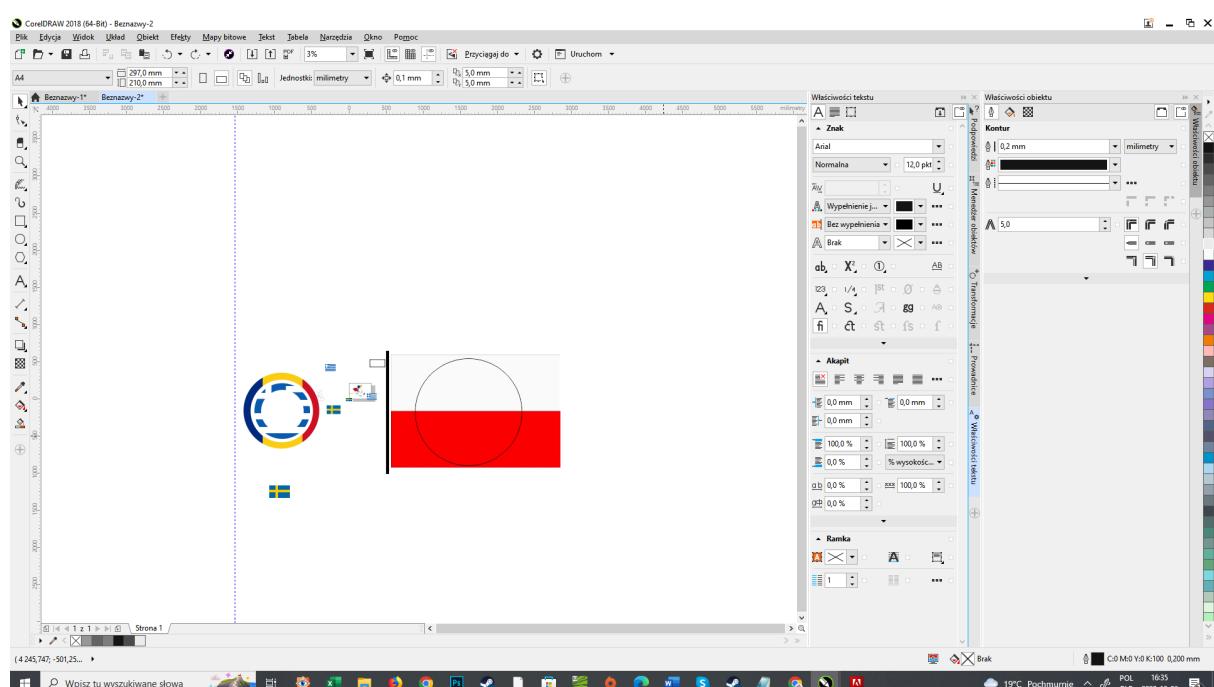
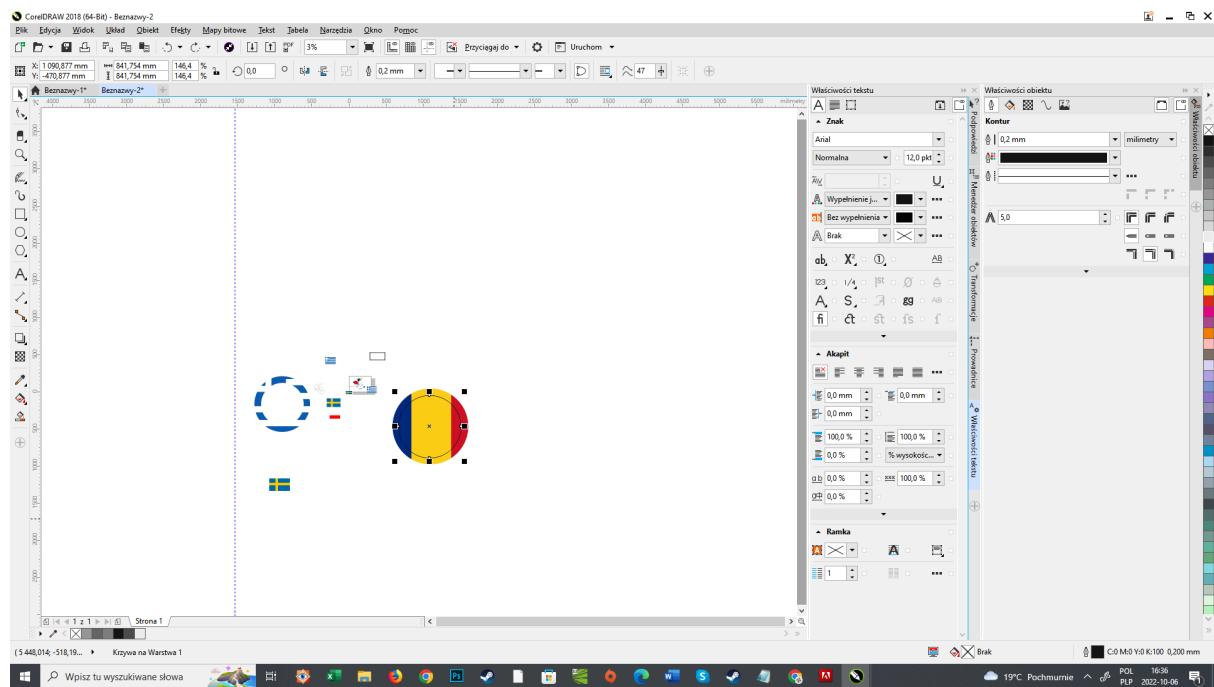
CMS stands for "Content management system".

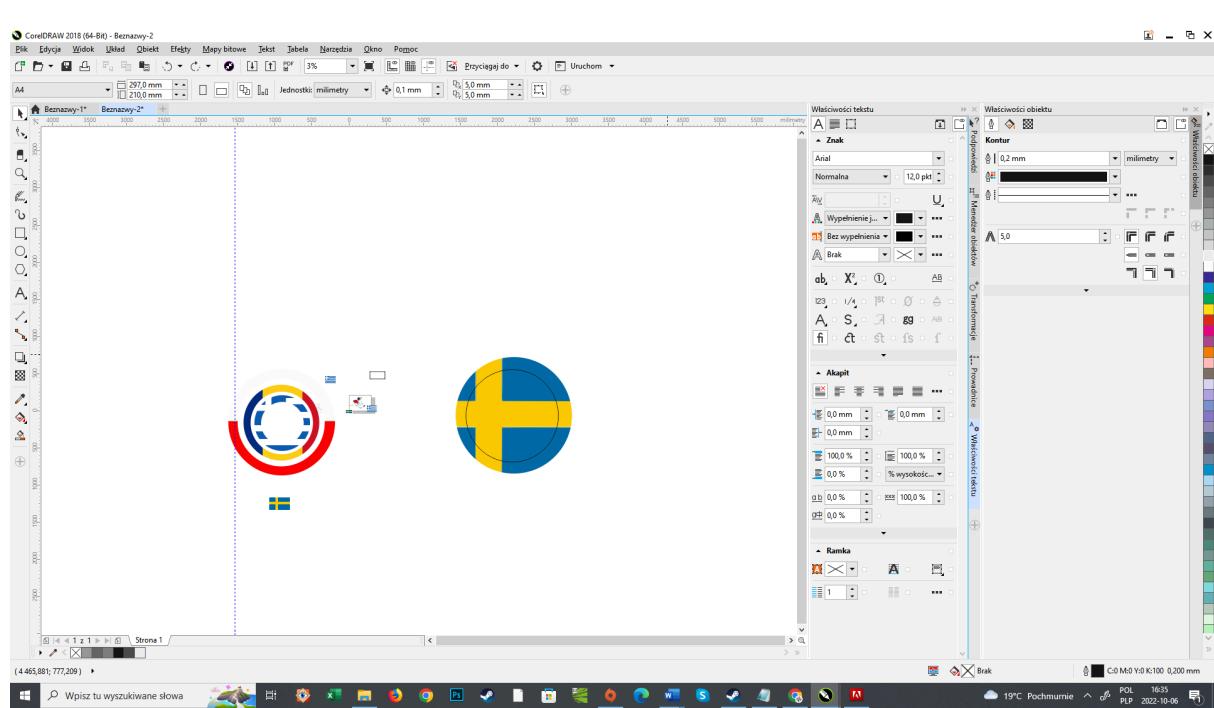
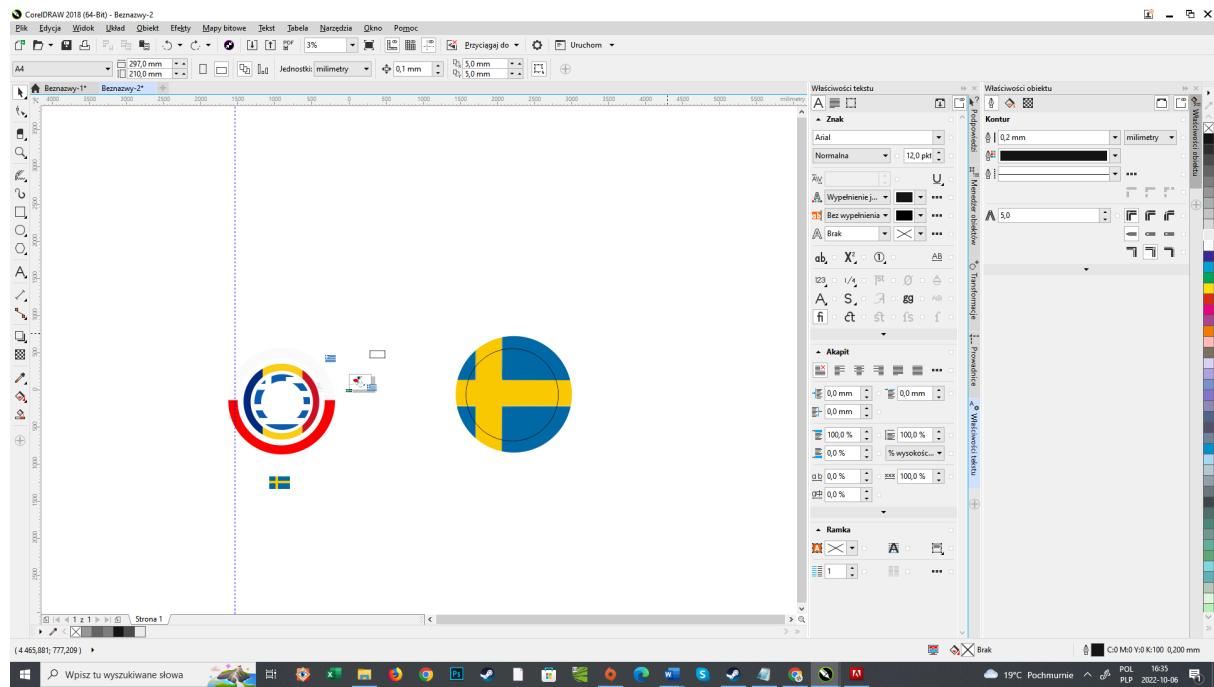
Let's watch a Video about it : <https://youtu.be/q3s5Zyyqt4k>

Preparing a graphic

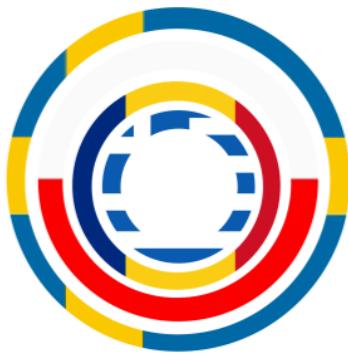
Step by step how to create graphics







The final result



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Creating a website BASIC HTML TAGS

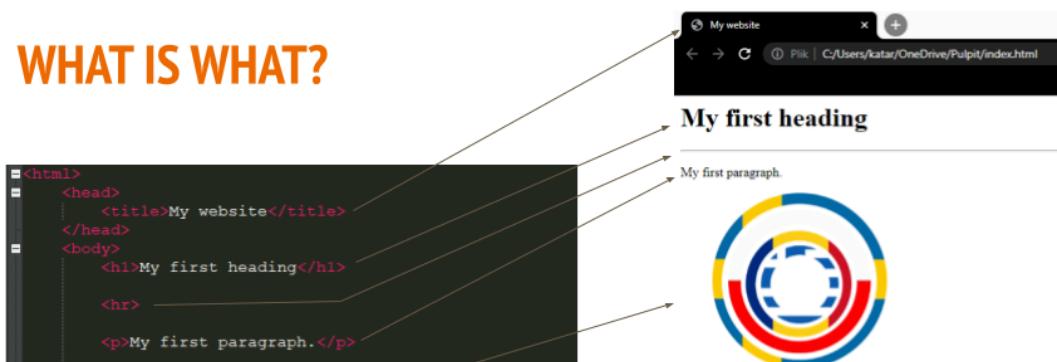
```
1  <html>
2    <head>
3      ...
4    </head>
5    <body>
6      ...
7    </body>
8  </html>
9
10
11
12
13
```

You can write here for example title, meta tags, link to CSS and JavaScript code.

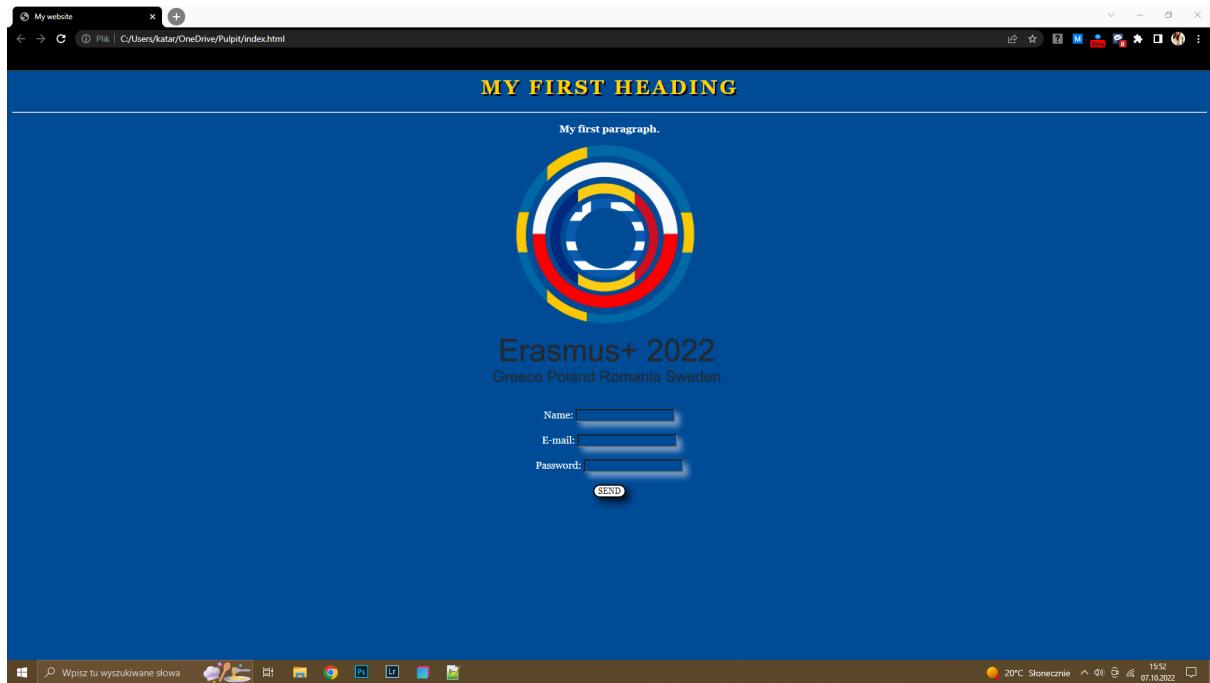
This element includes the main content of the website such paragraphs, images, hyperlinks, tables, lists, etc.

We have to open and close each section and write what we need inside.

WHAT IS WHAT?



HTML WITH CSS



CSS stands for Cascading Style Sheets.

CSS saves a lot of work. It can control the layout of multiple web pages all at once.

With CSS, you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colors are to be used, different displays for different devices and screen sizes, and much more!

HOW TO COMBINE CSS WITH HTML?

```
index.html [ style.css ]  
1 <html>  
2   <head>  
3     <title>My website</title>  
4     <link rel="stylesheet" href="style.css">  
5   </head>  
6   <body>  
7     <h1>My first heading</h1>  
8     <hr>  
9     <p>My first paragraph.</p>  
10    <br><br>  
11    <form>  
12      Name: <input type="text" id="name">  
13      <br><br>  
14      E-mail: <input type="text" id="email">  
15      <br><br>  
16      Password: <input type="password" id="password">  
17      <br><br>  
18      <button type="submit">SEND</button>  
19    </form>  
20    </body>  
21  </html>
```

CREATE A CSS FILE

SPECIFY THE FILE AND ENTER ITS NAME

- HTML - WEBSITE STRUCTURE
- CSS - THE APPEARANCE OF THE WEBSITE

HOW CSS CODE LOOKS LIKE?

```
* {  
  background-color: #004c99;  
  text-align: center;  
  font-family: georgia;  
}  
  
img {  
  width: 400px;  
}  
  
h1 {  
  text-transform: uppercase;  
  letter-spacing: 4px;  
  color: #FFD500;  
  text-shadow: 3px 3px 0 black;  
}  
  
p {  
  color: white;  
  font-weight: bold;  
}  
  
button {  
  border-radius: 20px;  
  background-color: white;  
  box-shadow: 7px 7px 13px rgba(0,0,0,0.8);  
}  
  
input {  
  box-shadow: 7px 7px 10px rgba(255,255,255,0.5);  
}  
  
form {  
  color: white;  
}
```

The most common way to add CSS, is to keep the styles in external CSS files.

PUBLISHING A WEBSITE

What you need to publishing your own website ?

You need a program that will help you to share and realize the content of your website. The program that will help you do this is GitHub, it is a free program that you will be able to use to create your own pages.

What is GitHub ?

GitHub is used as a storage space for the content which is programming code written by different programmers, designers, and developers.

GitHub is basically a code-hosting platform where there is uninterrupted accessibility to open-source programming frameworks, libraries, and languages. It hosts the largest community of tech developers in the world.

What you need to know to use GitHub ?

1. Visit GitHub's Sign Up page and create your account.
2. The installation process is complete by signing up for an account.
3. Open the GitHub website and click on the “+” sign. Select NEW Repository from the drop-down menu.
4. Name the repository, and add a description .
5. Tick the box that says Initialize this repository with a README, and press on the green Create repository button.

How to publish your HTML website?

Let's see the video: <https://youtu.be/GMMAAFDqAO0>

Thank you for your attention.