



EASTERN MEDITERRANEAN UNIVERSITY

SCHOOL OF COMPUTING AND TECHNOLOGY

ITEC102 – INFORMATION TECHNOLOGIES



SUBJECT11– WEB DESIGN

Aim Of the Course

The aim of the course, to have information about

- Definition about web design,
- Examples of the basic software languages used in web programming,
- Web design program example,
- File operations,
- Create a document,
- Adding and formatting the text,
- Working with tables,
- Making add-ons to the document
- Creating links between the documents,
- Viewing a document in a web browser

*Bu ders notunda kaynak gösterilmemiş tüm görseller flaticon.com adresinden alınmıştır.

Web Design

- **Web design** is defined as the **digital editing of content for individuals or organizations** and **viewing of these content in web browsers**.
- Web designs can consist of both **graphical** and **text-based** content.
- All shared content needs to be translated into a programming language that web browsers can read.



Web Design

- Web sites are **official information channels** for individuals and institutions.
- **With the increase in internet speed**, website content has started to enrich.
- Text-based content is replaced by high-resolution photos, sound files, and videos.
- The content in the web environment is also used for **educational activities** and continues to be developed.

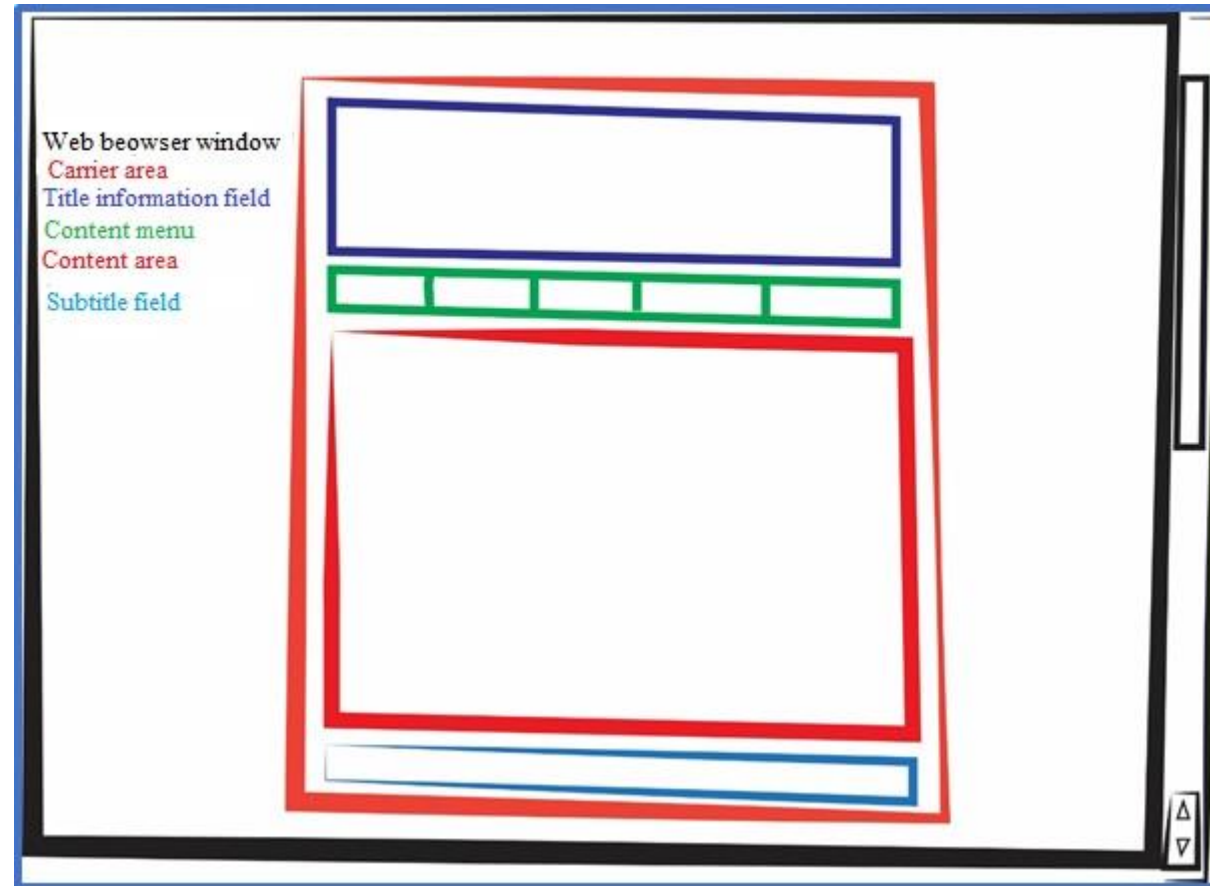


Web Design

- When creating web pages, the content itself is as important as the programming languages to use.
- Websites; It consists of basic sections such as a content area, header information, subtitle information, and content menu list
- The designs of the websites are usually started by drawing on **paper** with a **pencil**.^[1]
- Visual design programs such as **Adobe Photoshop** and **Adobe Illustrator** can be used in the **preparation of visual content**.^[1]

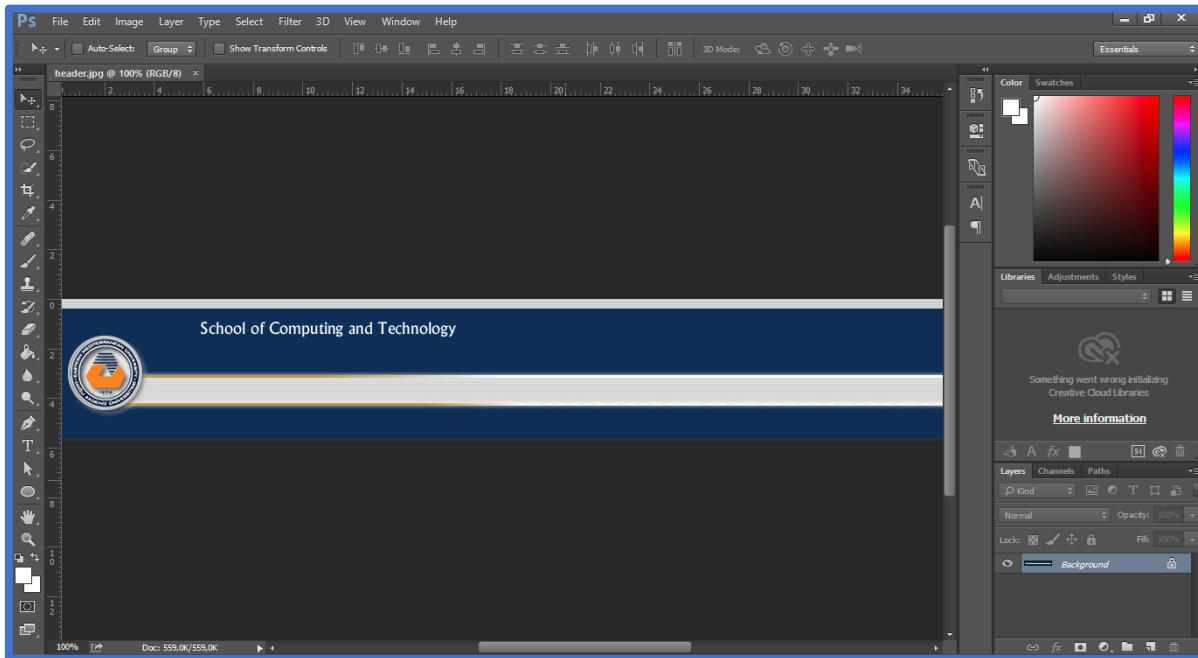
[1] Rand-Hendriksen, M. (2012). Sams teach yourself Microsoft Expression Web 4 in 24 hours. Sams Publishing.

Web Design

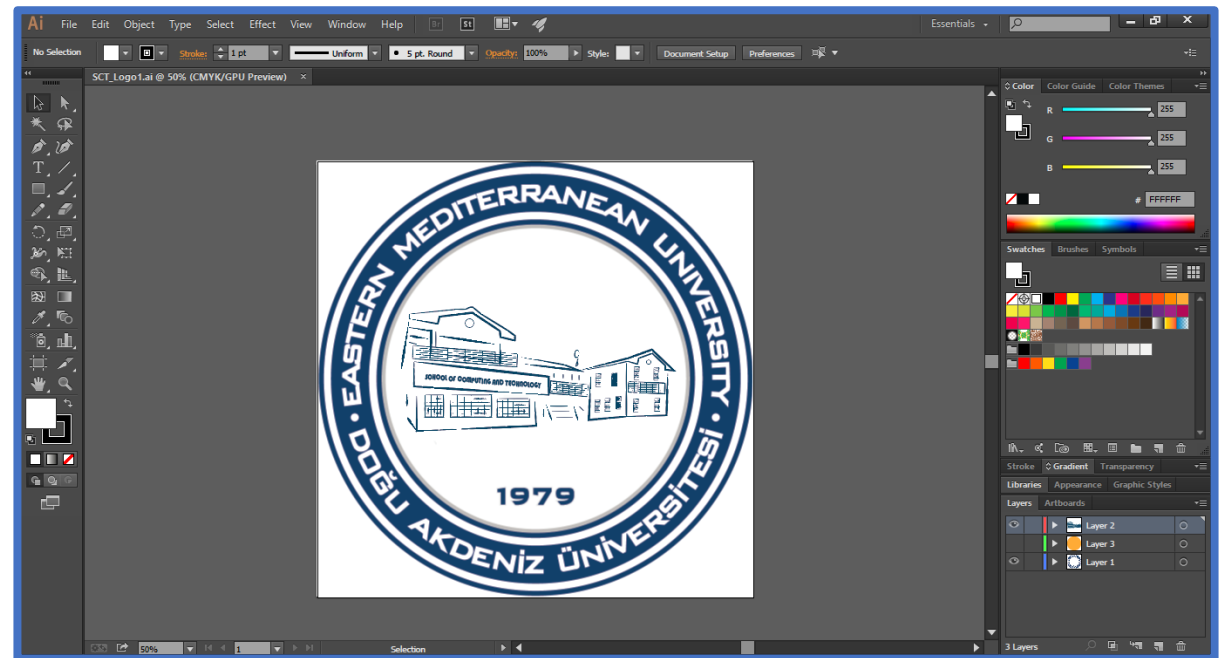


A website designed using paper and pencil

Web Design



A visual from the Adobe Photoshop CC 2015 program



An image from Adobe Illustrator CC 2015 program

Basic Software Languages Used in Web Programming

- Different software languages can be used to create web pages.
- **HTML** (HyperText Markup Language), is a markup language used to create web page documents. HTML is not a programming language.^[2]
- Paragraf, is used to define the content like title and list. Web browsers, process HTML code and display them to the user.
- HTML documents have a * **.html** extension.

```
<html>  
    <body>  
        <p> Hello World </p>  
    </body>  
</html>
```

[2] Robbins, J. N. (2012). Learning web design: A beginner's guide to HTML, CSS, JavaScript, and web graphics. " O'Reilly Media, Inc."

Basic Software Languages Used in Web Programming

- When creating HTML content itself, **CSS** (Cascading Style Sheets) is used to specify how content will look ²¹
- The contents in the HTML document can be visualized with the help of styles. Coloring of text information can be given as an example.
- CSS styles; It can be processed into HTML documents or can be created in documents with * **.css** extension

```
body
    {
        font-family: Century Gothic;
        color: white;
    }
```

Basic Software Languages Used in Web Programming

- **JS** (Javascript) is the command language used to make a web page dynamic.^[2]
- Usually, JS codes are run on the client side and not on the server computer. **A client** is the name given to a user computer that is located on a network and that is serving from the server computer.
- Using JS language; The form information that is filled out on the web can be checked without being sent to the server computer or the previously entered information can then be remembered by the web
- The programs prepared in JS can be called from the * **.js** file or embedded in HTML blocks with HTML extensions..

```
<script language="javascript">  
    document.writeln("<p>Hello World </p>");  
</script>
```

Basic Software Languages Used in Web Programming

- **PHP** (Hypertext Preprocessor) is an object-oriented programming language that runs on a server.^[2]
- PHP is an **open source programming language** with advanced database support..
- In addition, programs written in PHP can be created in * **.php** documents and embedded in HTML blocks..

```
<?php  
    echo " Hello World ";  
?>
```

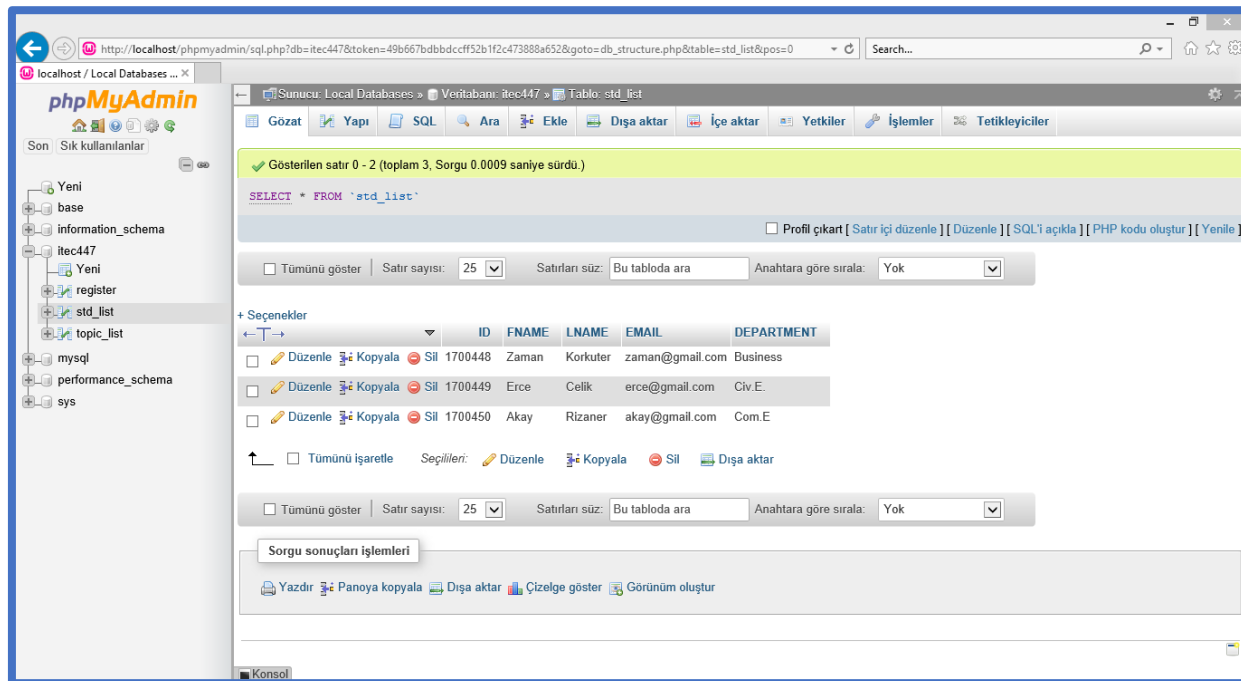
Basic Software Languages Used in Web Programming

- **MySQL** (My Structured Query Language) is a relational database management system.^[1]
- **Database management system;** is a software designed to identify, create, modify, use databases and perform other operational activities.
- **Relational database;** This is an example of a database where data is stored on relational tables, rather than irregularly, and the relationships between tables are provided with the help of keys.
- It can be used with many programming languages such as PHP

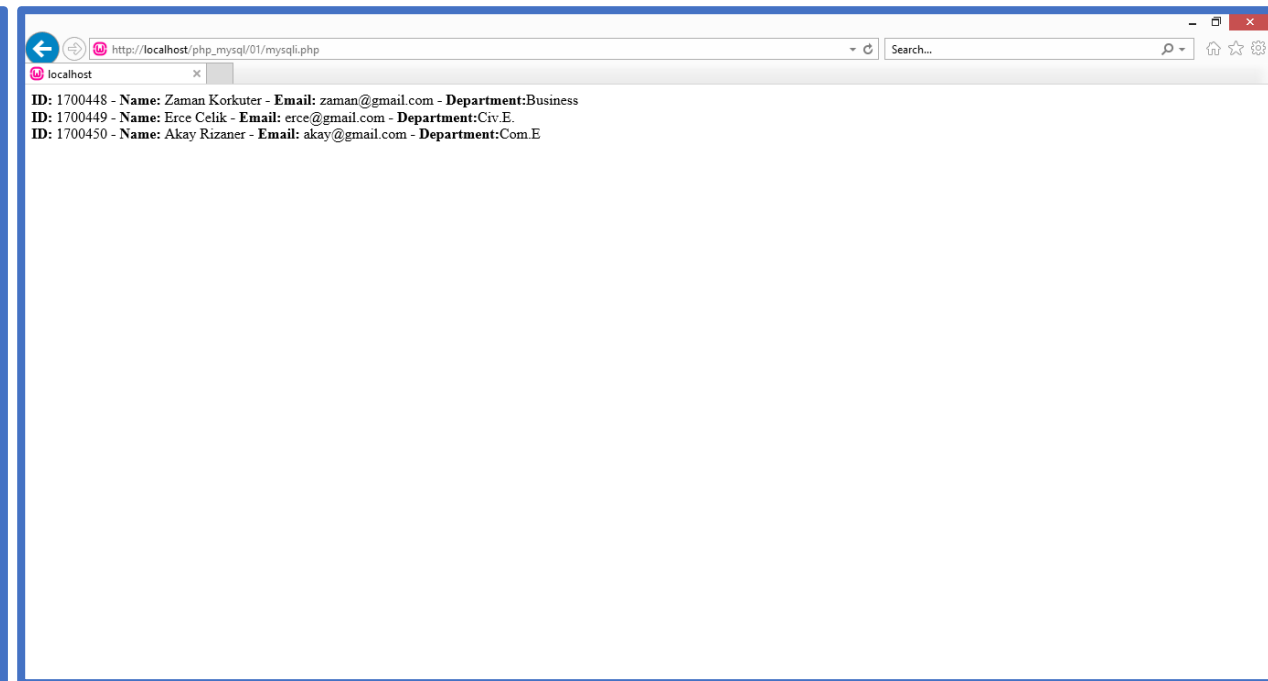
```
SELECT Name, Surname  
FROM Students  
WHERE Age > 18
```

Basic Software Languages Used in Web Programming

- After the **WAMP** (Windows Apache MySQL PHP) server software is installed on the computer, the PHP and MySQL commands on the virtual server can be developed and run^[1]



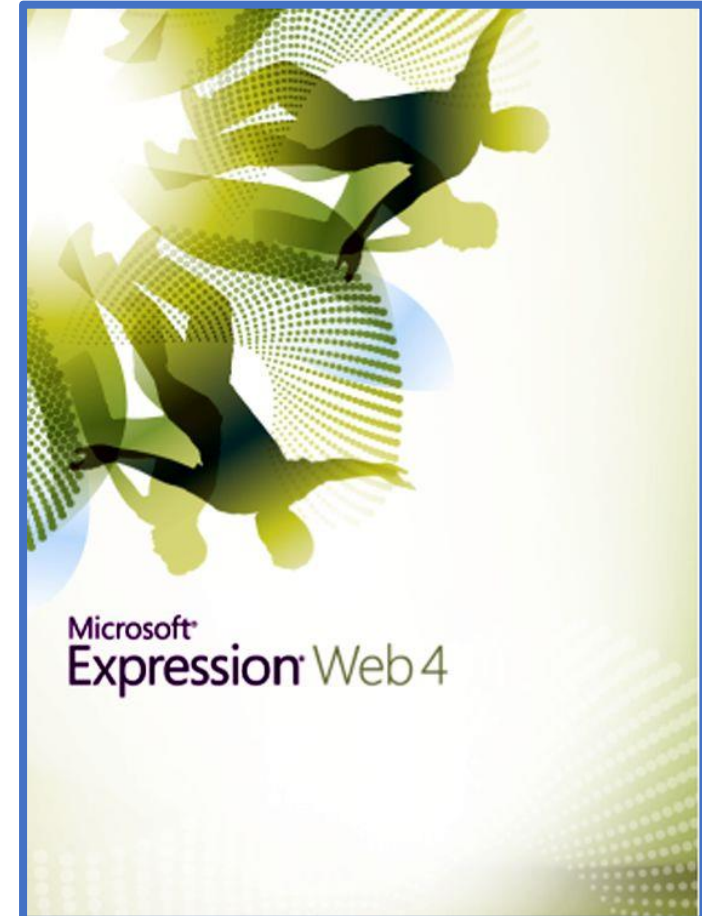
Example of a database created on a WAMP server



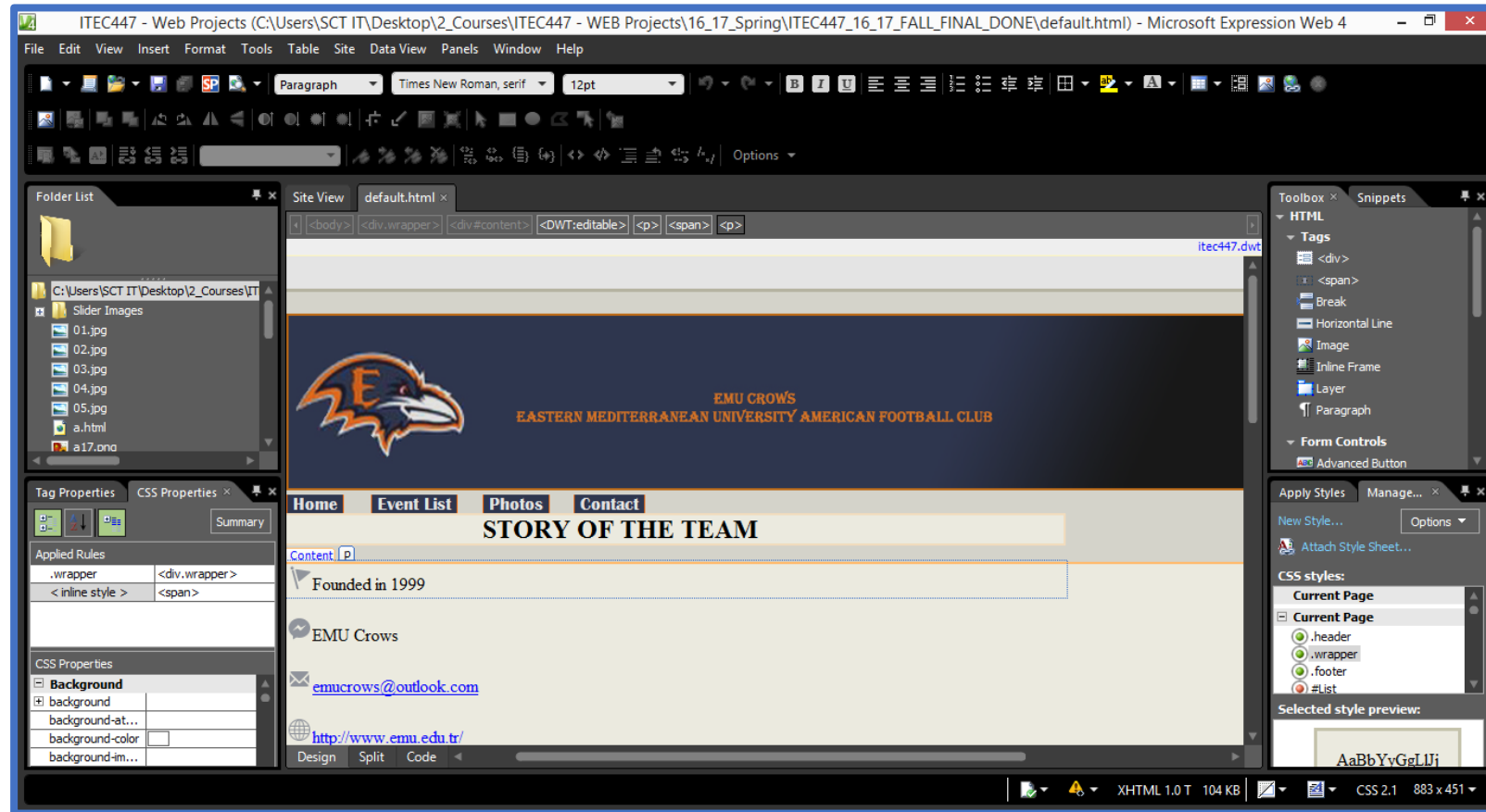
An example of how database information is displayed in a web browser with PHP

Microsoft Expression Web 4

- **Microsoft Expression Web 4** is a code editor used by designers and software developers to create and edit web pages..^[1]
- With Microsoft Expression Web 4, documents can be created using HTML, CSS, XML, JavaScript, ASPX and PHP.
- Visual elements can be edited on the **Design** screen and commands can be processed on the **Code** screen
- On the code screen, misspelled commands are displayed to the user by the program.



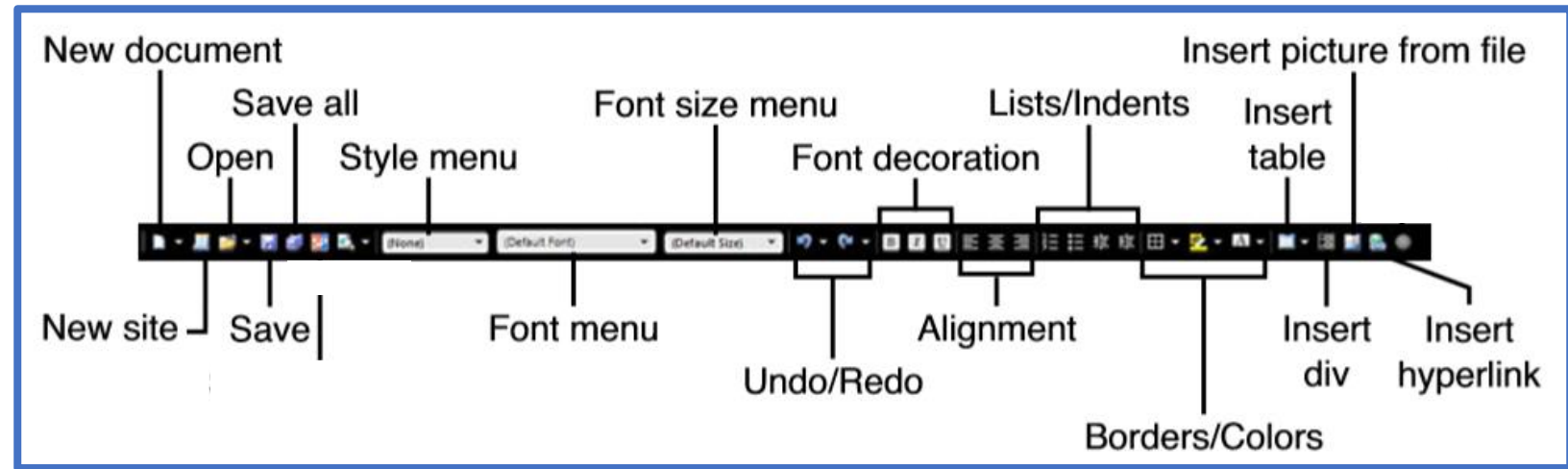
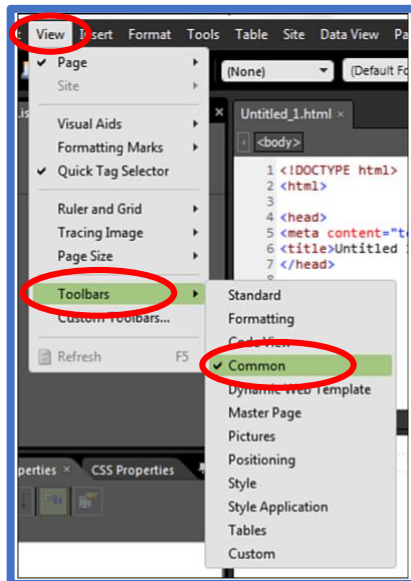
Microsoft Expression Web 4



A website prepared in the Microsoft Expression Web 4 program

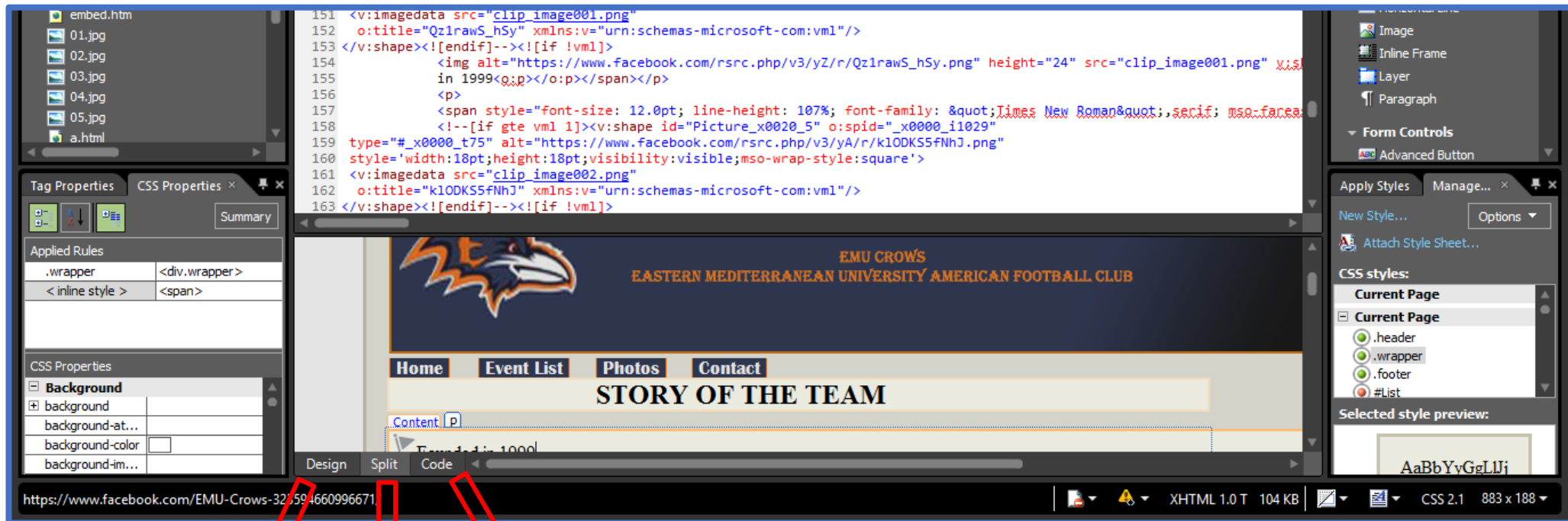
File Operations

- Microsoft Expression Web 4 can be used as a word processing program. The **Common** toolbar contains features that users use most on the design screen
- To enable the **General toolbar**, select Toolbars from the **View tab** and click the **Common** button from the drop-down list.



File Operations

- Buttons at the bottom of the window are used to switch between **Design** and **Code** screens



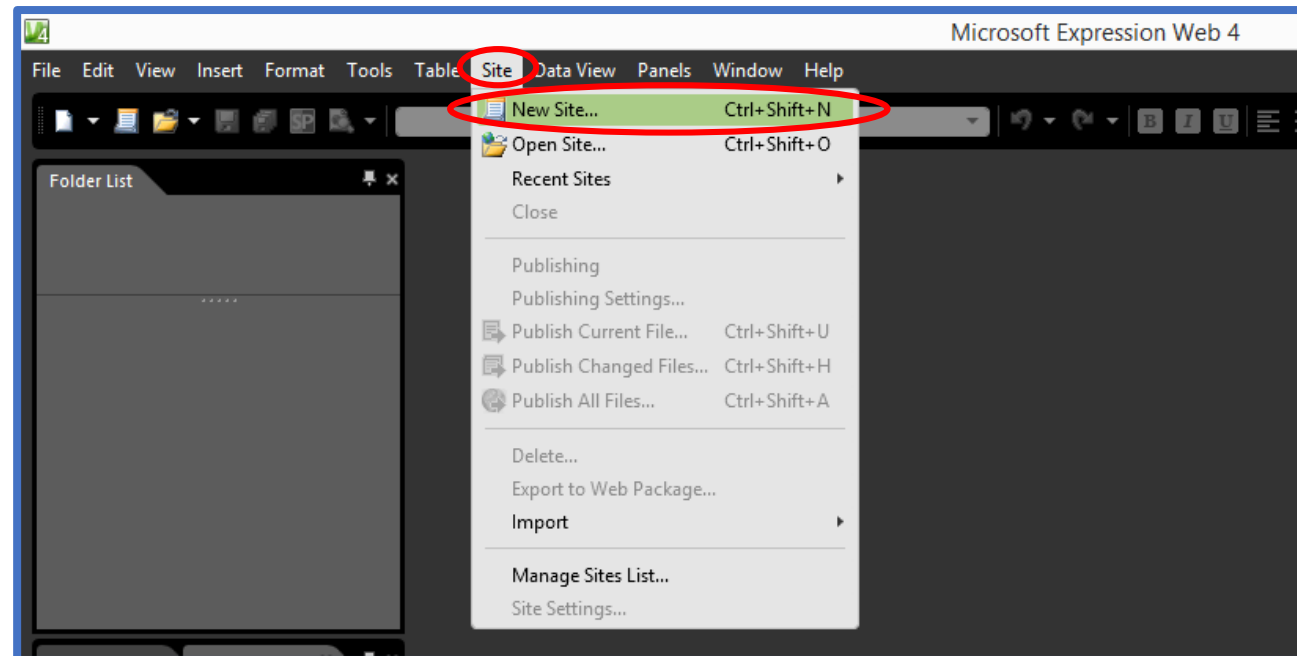
Design

Dual view

Code

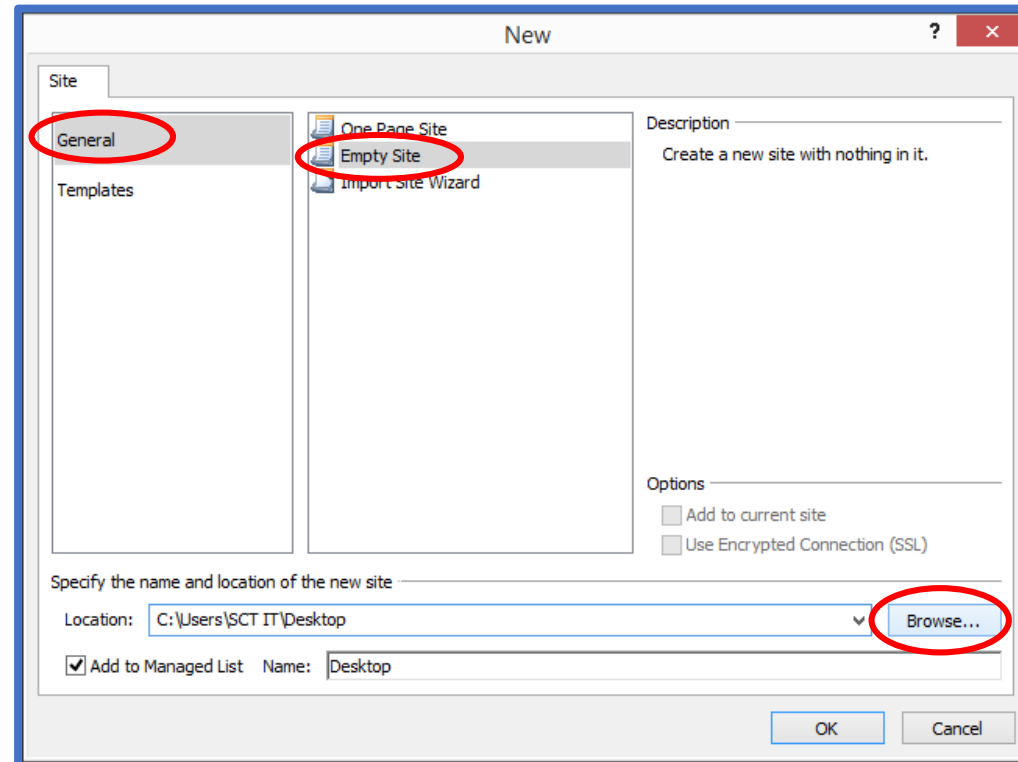
File Operations

- A **folder** must be created before the document can be created, in which to save the contents of the website.
- To create the **Web site** and save the site information to the created folder, click the **New Site** option on the **Site** tab in the menu..



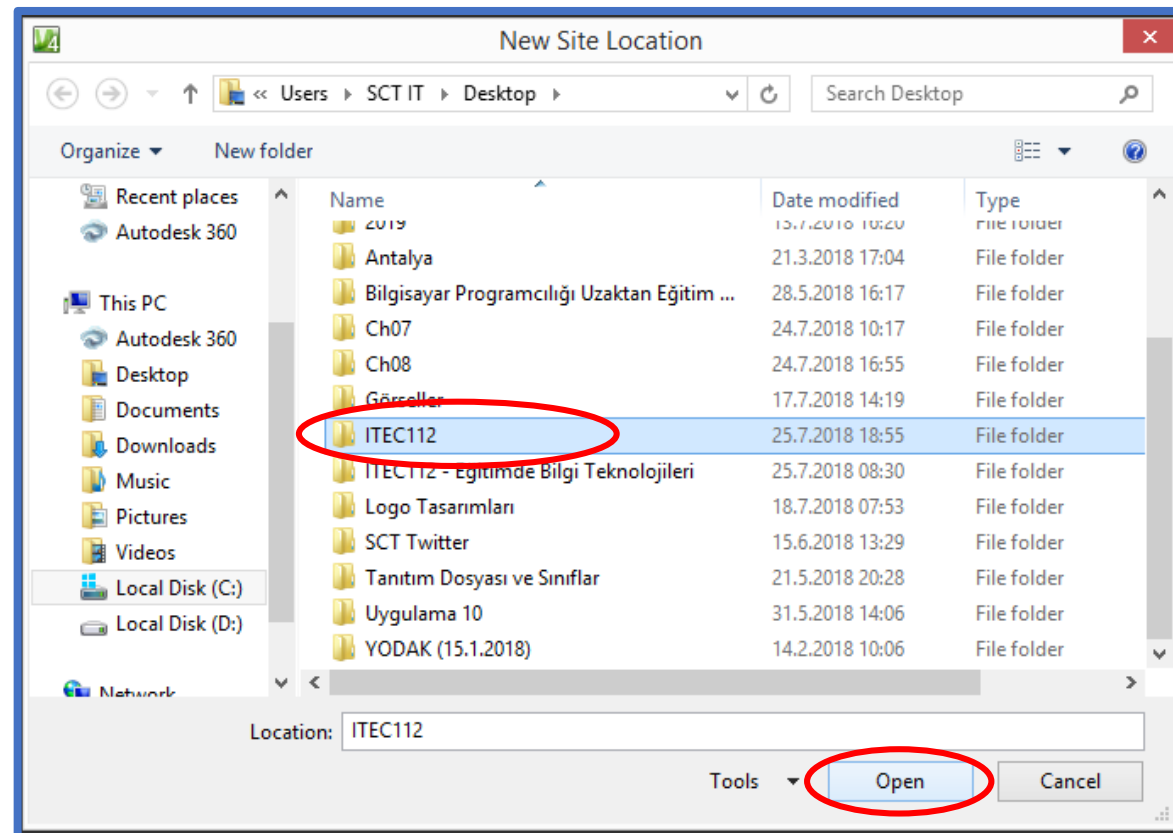
File Operations

- **Empty Site** under the **General tab** must be selected from the window that will open..
- Click the **Browse ...** button to select the folder where the site will be saved.



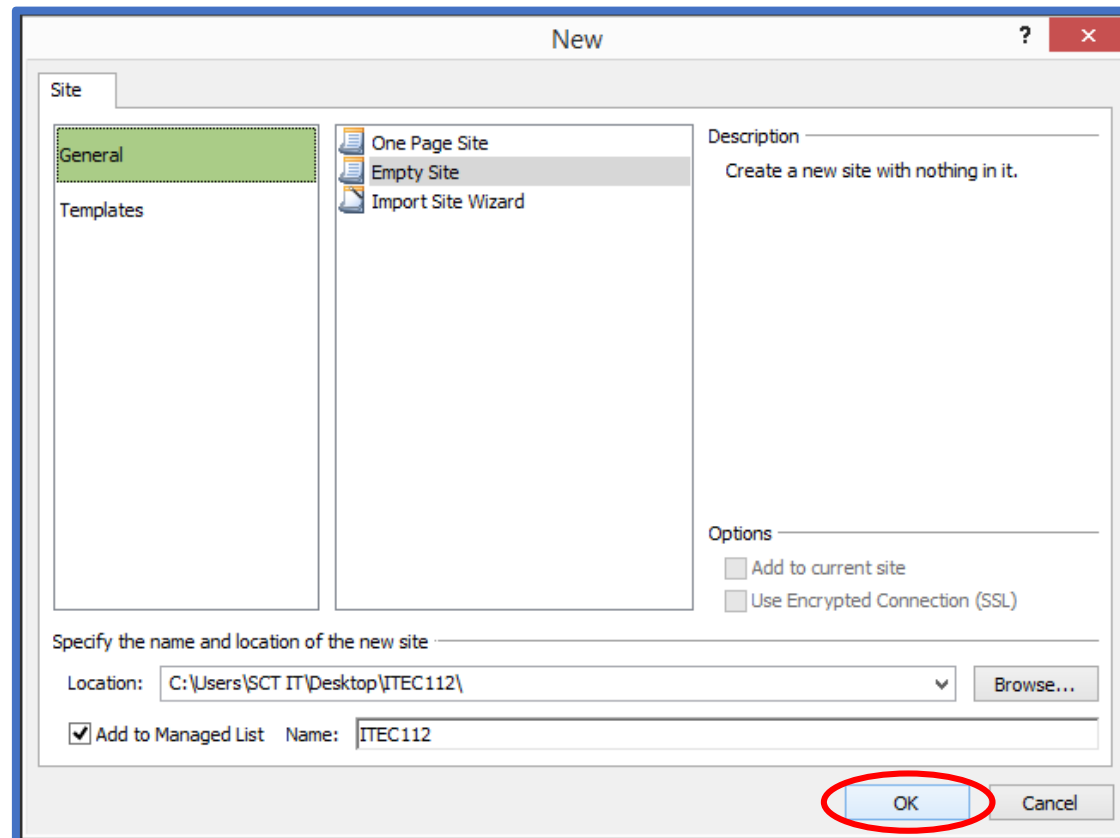
File Operations

- Select the relevant folder from the window that will open and click the **Open** button.



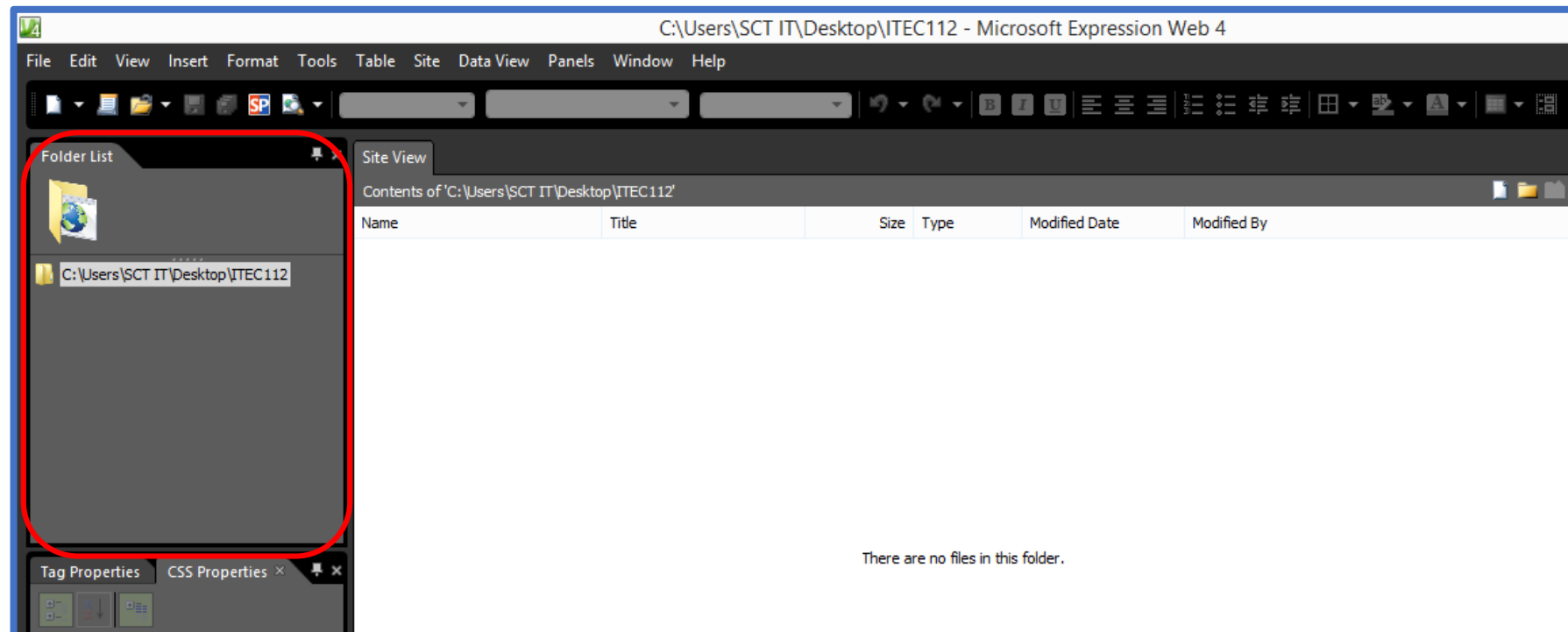
File Operations

- After selecting the folder, click the **OK** button..



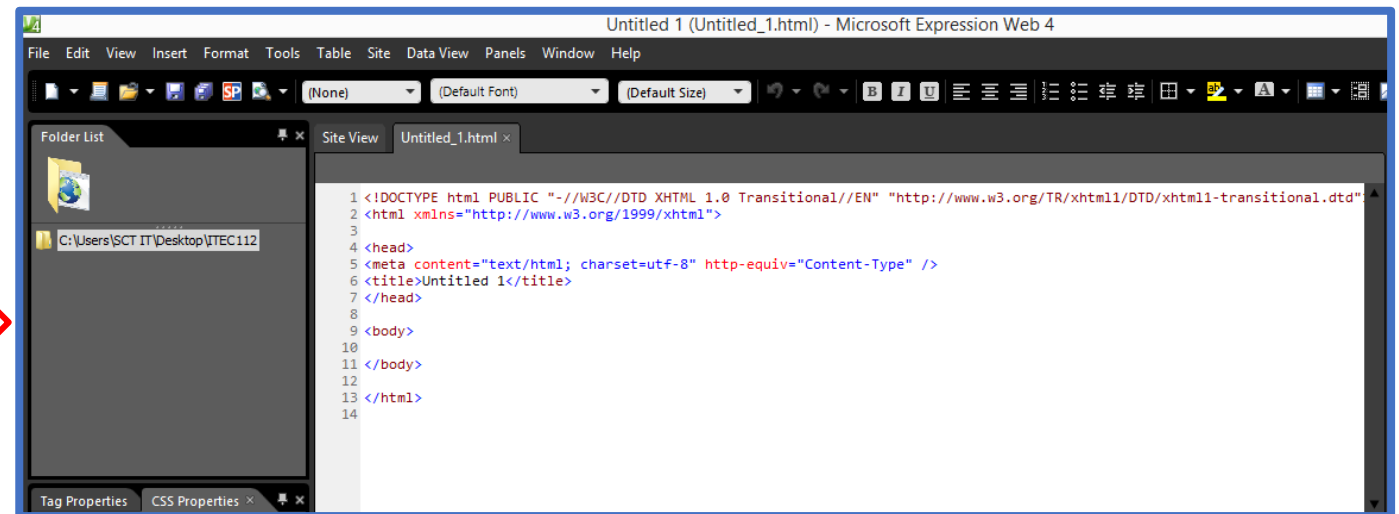
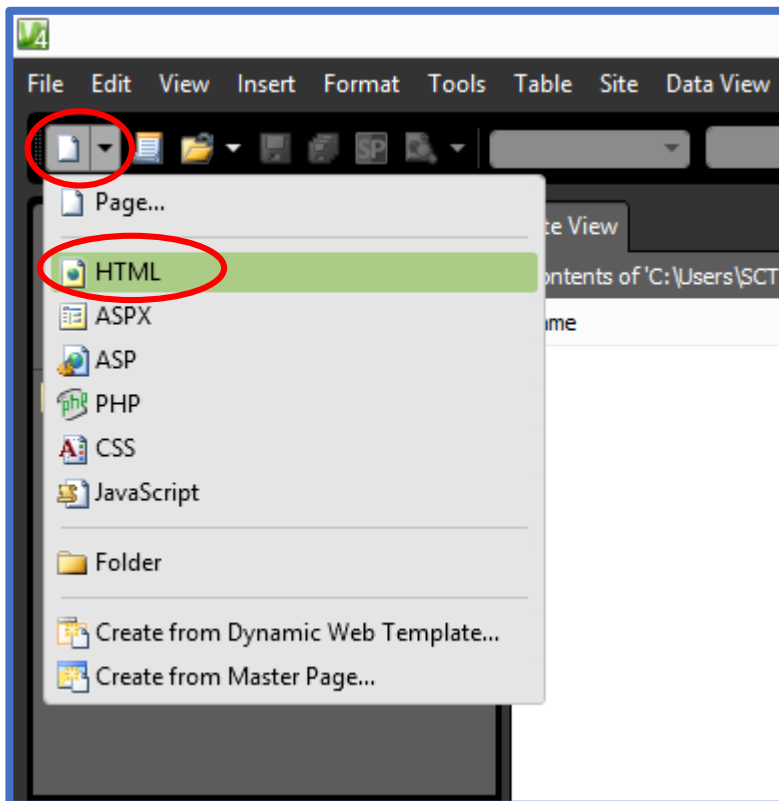
File Operations

- The folder directory will be displayed in the **Folder List** panel.
- Since the Web site folder does not have any content yet, no subfolder or file will be displayed



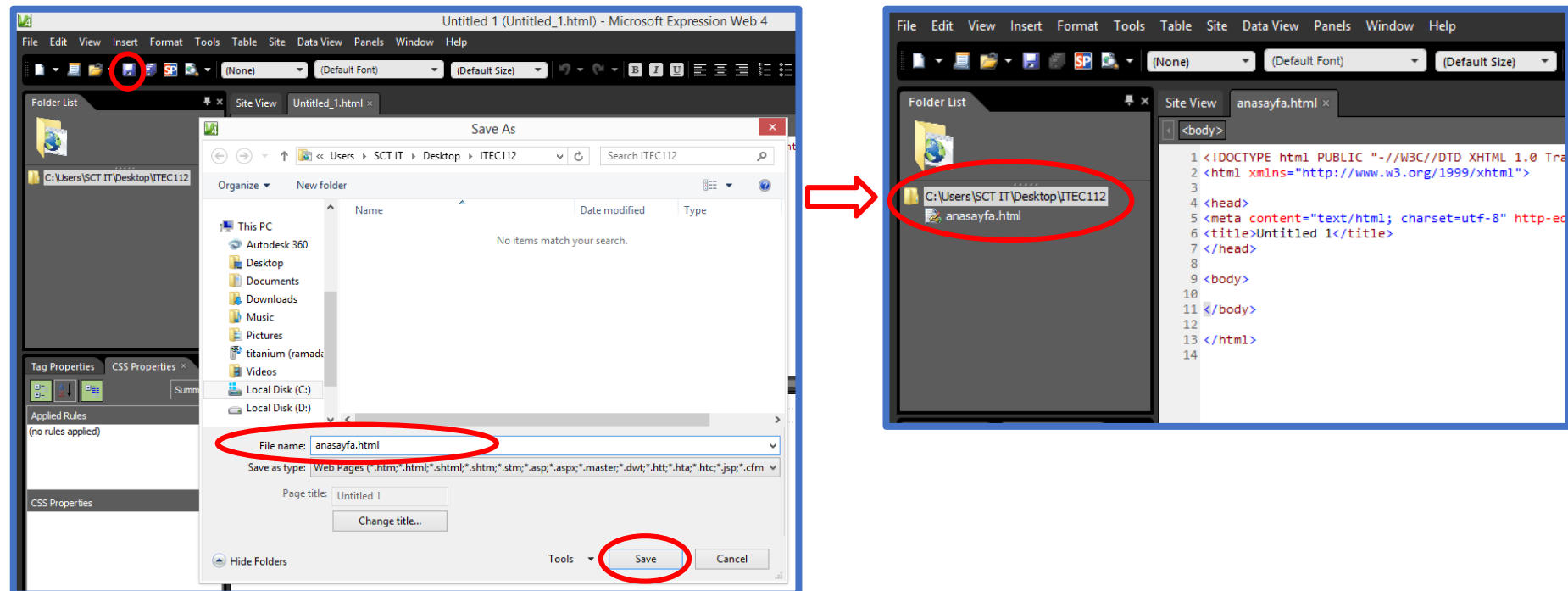
Creating Document

- To create an HTML document, click the **New Document** button in the **Common toolbar** and select **HTML** from the drop-down list.



Creating Document

- To save the HTML document, click the **Save** button on the **General** toolbar.
- The name of the HTML document should be entered in the window that will open, and then click the **Save** button.



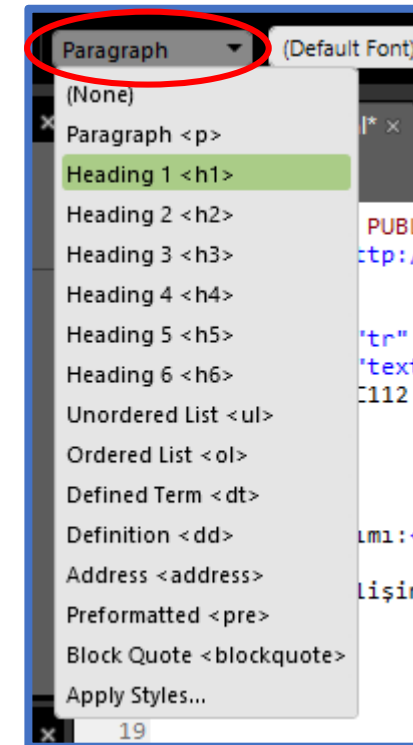
Adding and Formatting Text

- HTML document; As in any document, it consists of basic information such as title and content.

```
<html>
  <head>
    <title> ITEC112 – Information Technologies</title>
  </head>
  <body>
    <h1> Definition of the course: </h1>
    <p> This course consist, basic concepts of information technologies, definition of computational thinking, problem solving approaches, the use of internet in the field of education, the use of secure internet, the concept of ethics in information technologies, the effects of internet usage, computer hardware, operating systems, application software and third party software, algorithm analysis and flowchart design, use of word processing programs, use of spreadsheet programs, use of presentation programs, use of database programs, use of desktop publishing programs, definition of web design and use of code editors.</p>
  </body>
</html>
```

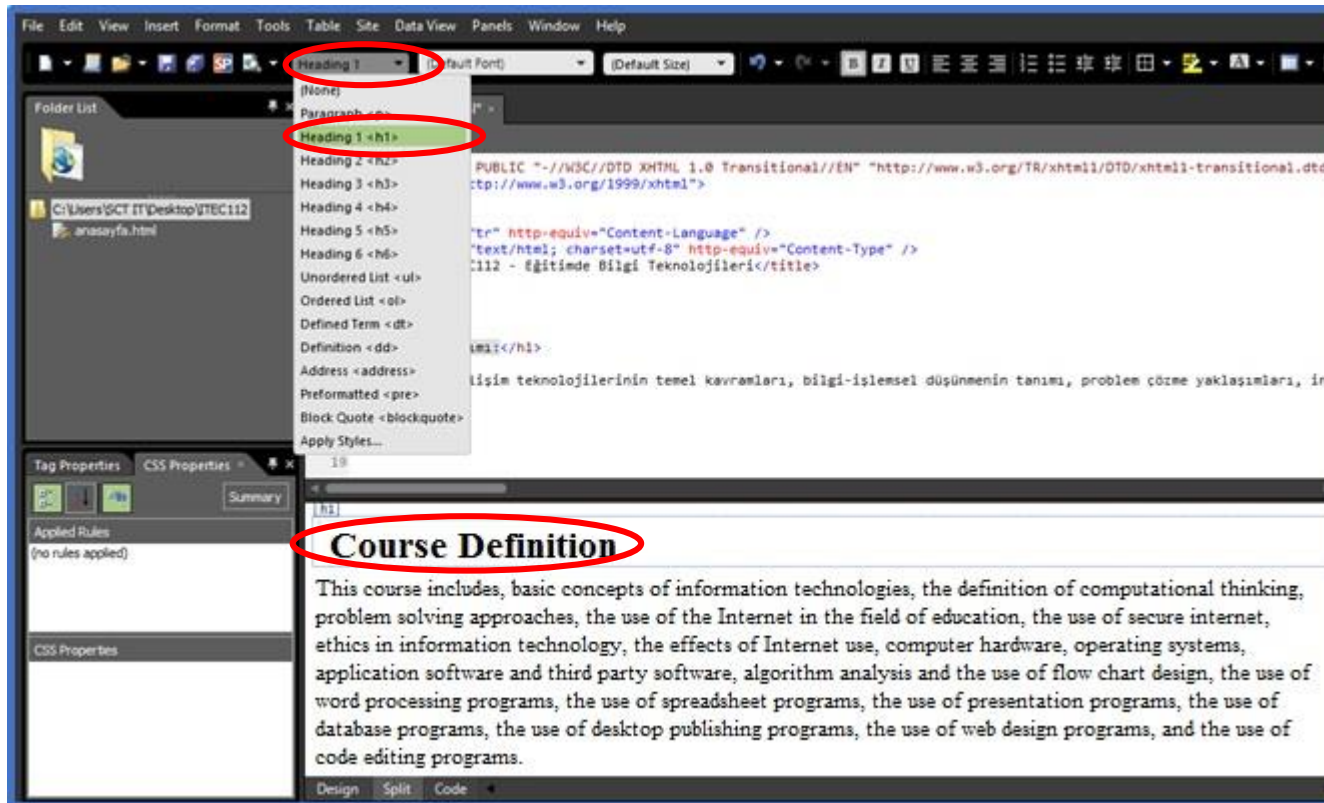
Adding and Formatting Text

- Because of code compiler programs, many process can also be performed from the **Design menu**
- All text information added to the **Design screen** is created in Paragraph (paragraf <p>).
- To format a paragraph created on the **Design screen** to be the **Primary Header** (Heading 1 <h1>), the content must first be selected with the mouse and then the **Primary Header** (Heading1 <h1>) property from the **Styles** drop-down list in the **General toolbar** must be clicked



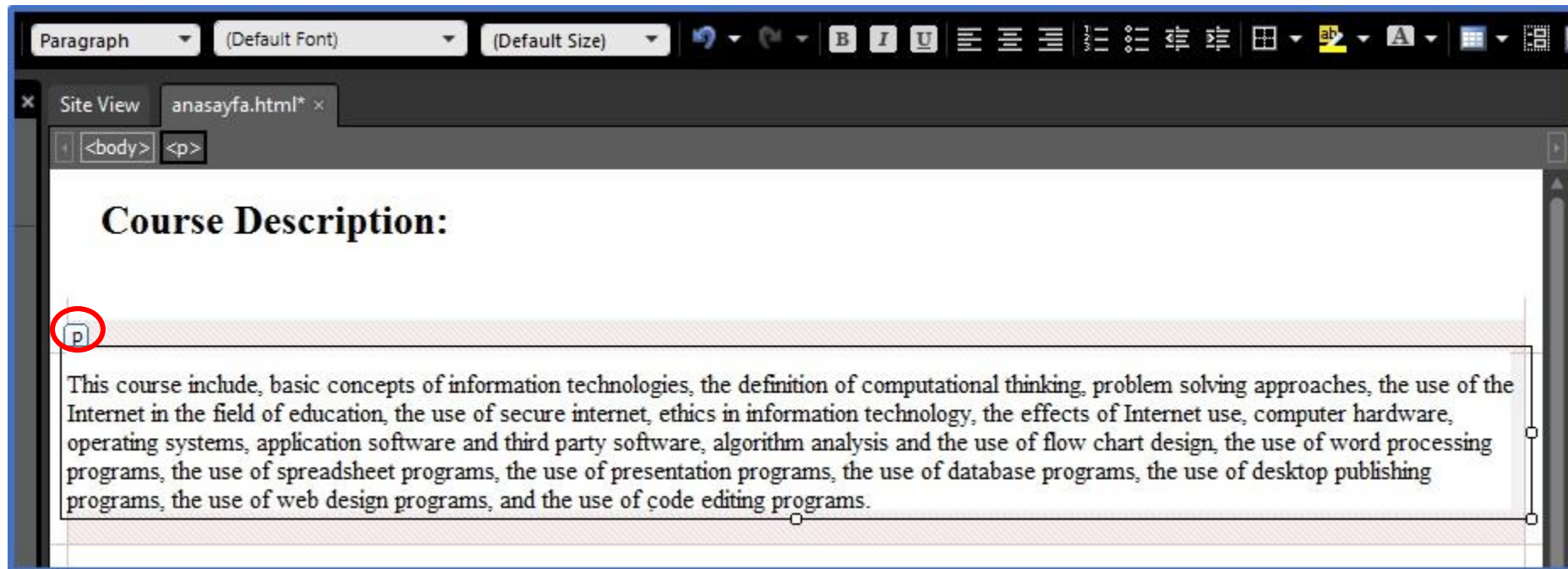
Adding and Formatting Text

- Text style will change after the process.



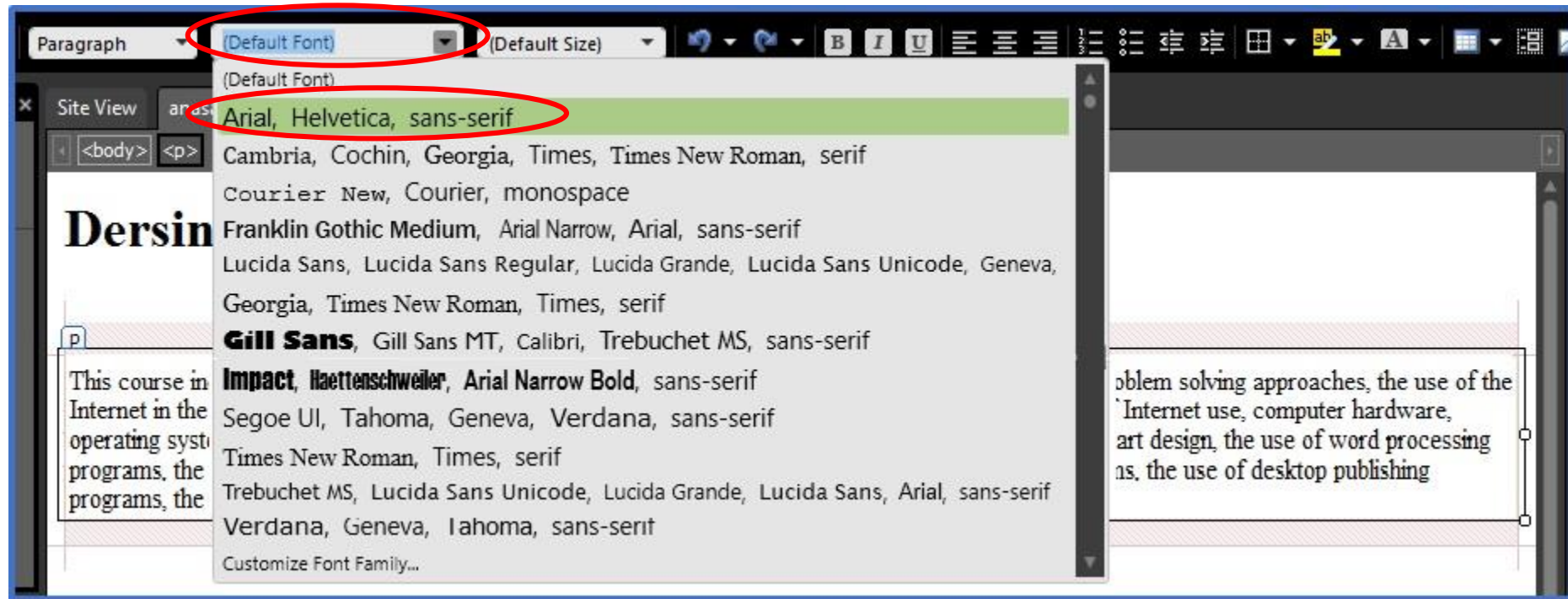
Adding and Formatting Text

- In order to **change the format of a paragraph** in the HTML document, the HTML code at the beginning of the paragraph should be selected from the **Design screen**..



Adding and Formatting Text

- Then, any type should be selected from the **Font Style** drop-down list in the **Common toolbar**



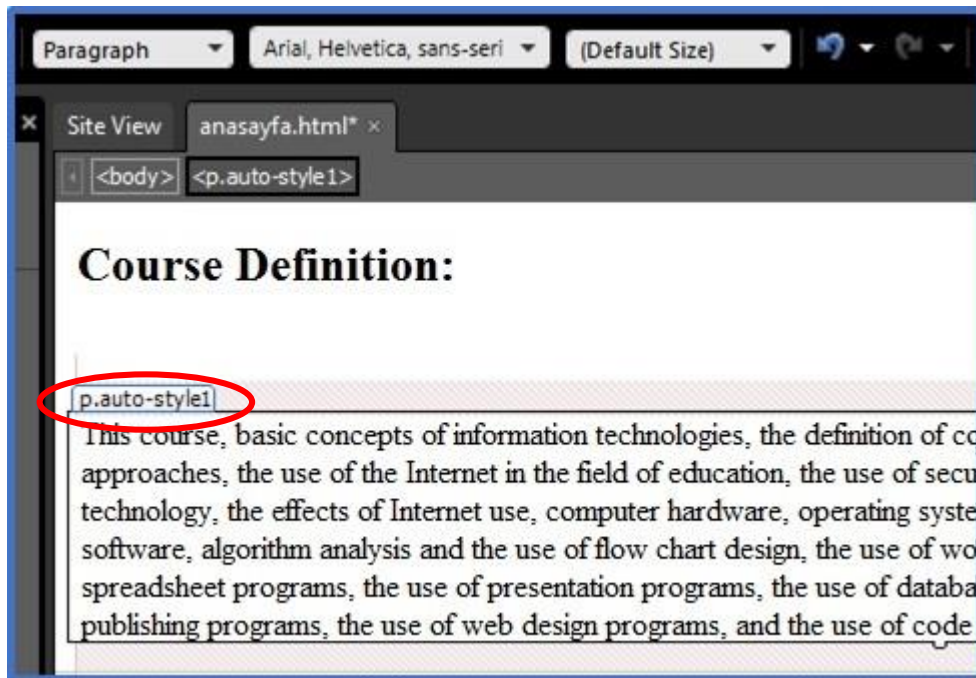
Adding and Formatting Text

- After the typeface selection, the code compiler program will create a **CSS class** containing the information of the corresponding typeface in the header of the HTML document.

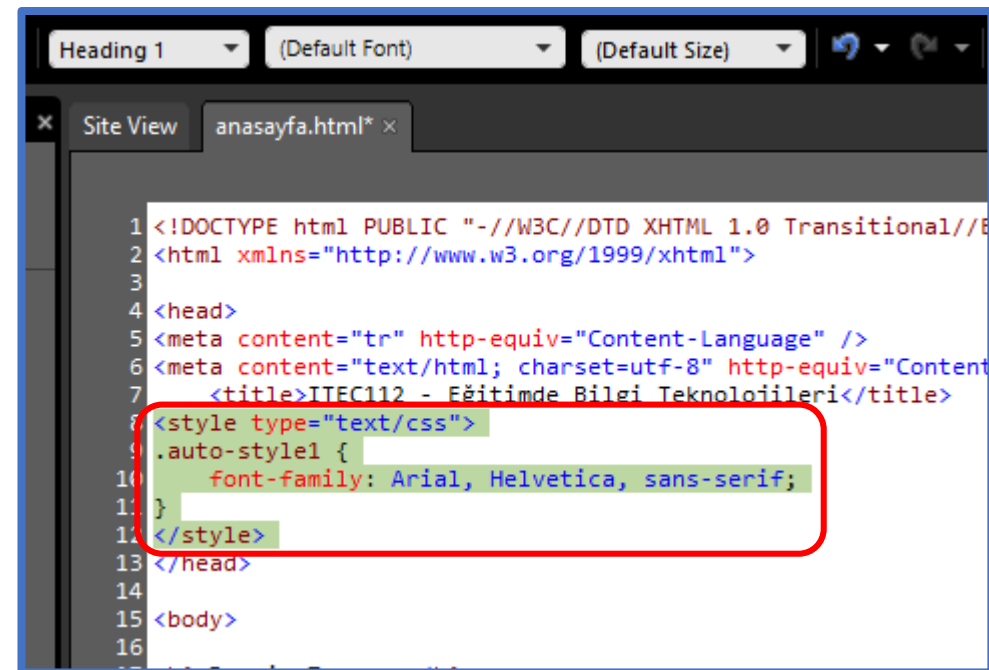
```
<html>
  <head>
    <title> ITEC112 – Information Technologies</title>
    <style type="text/css">
      .auto-style1
      {
        font-family: Arial, Helvetica, sans-serif;
      }
    </style>
  </head>
  <body>...</body>
</html>
```

Adding and Formatting Text

- The text format of the text will change after the process.



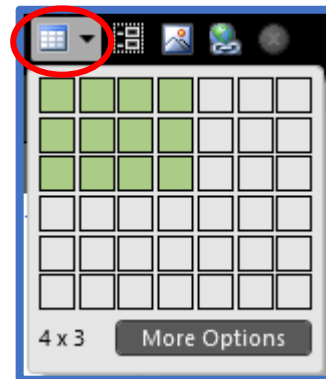
Design screen image



Code display image

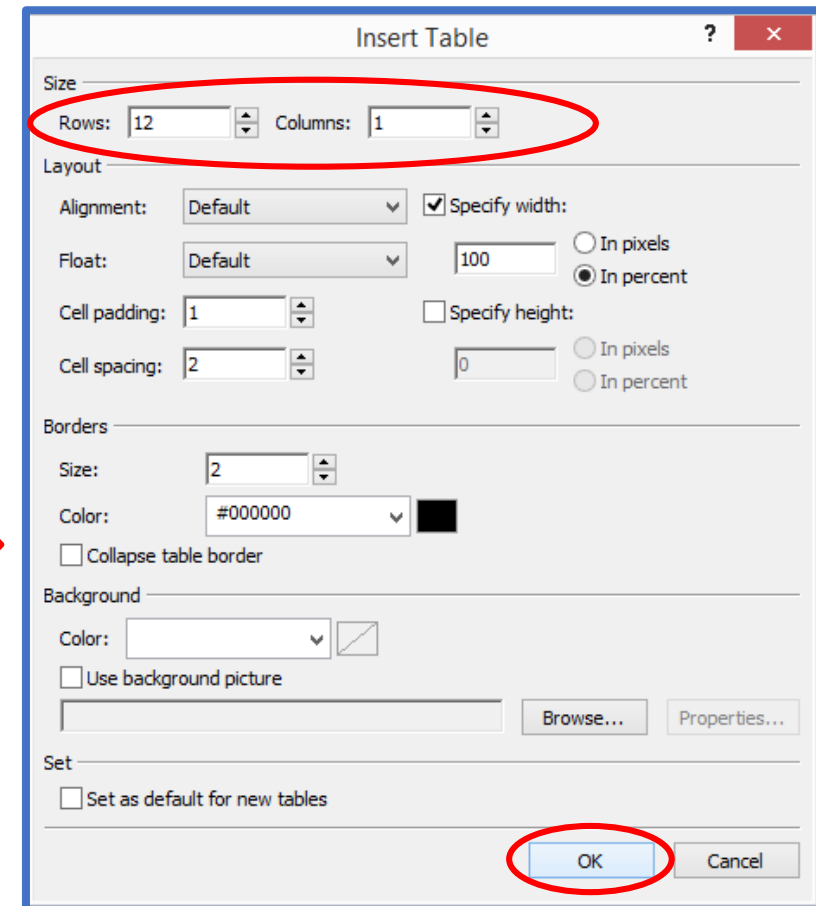
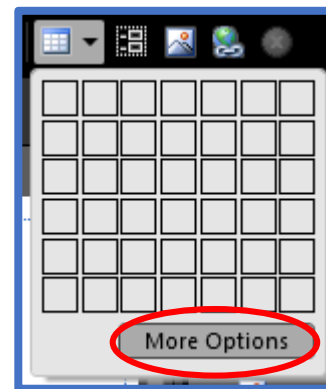
Working with Tables

- To insert a table into the HTML document, the **Insert Table** button on the **Common toolbar** should be used
- Number of **rows** and **columns** can be selected from the next window after the button is clicked..



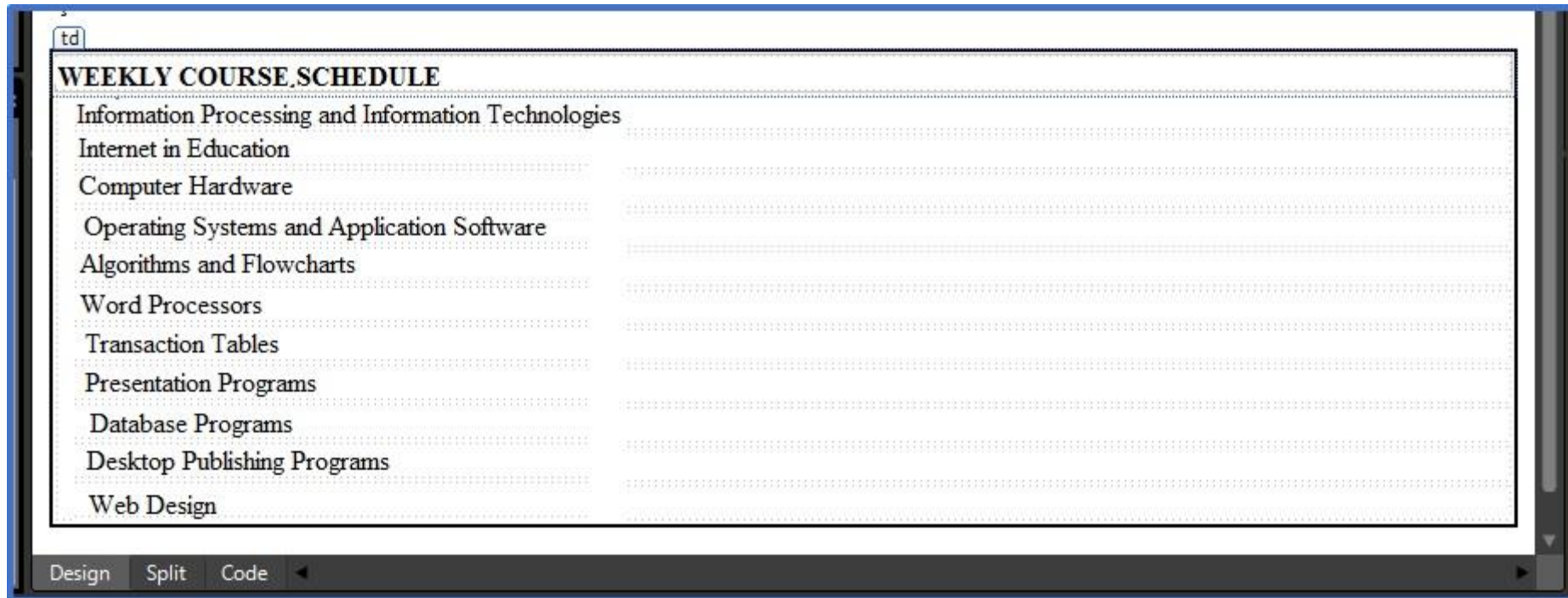
Working with Tables

- If the row or column number of the table to be created is more than the squares on the screen, the **More Options** button should be clicked.
- The row and column numbers should be entered using the **Rows and Columns** boxes
- Click **OK** to create the table.



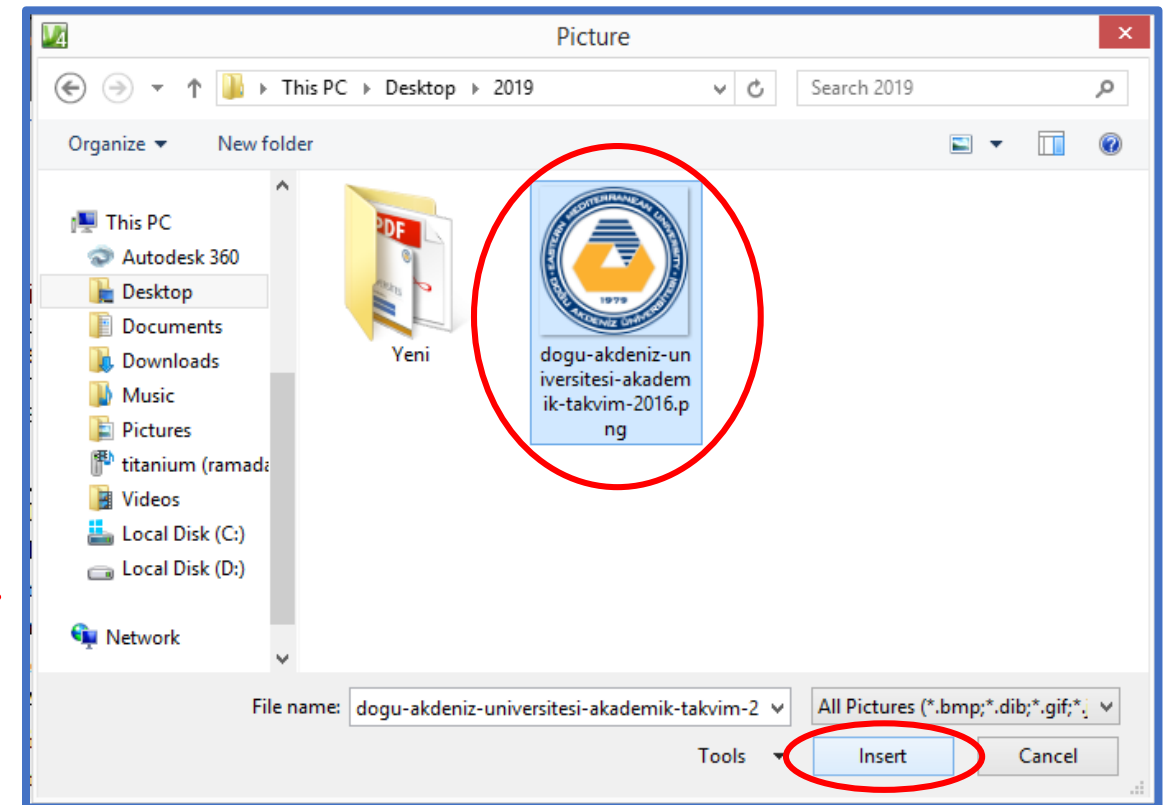
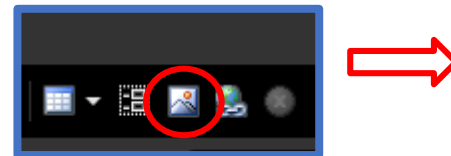
Working with Tables

- After adding a table to the HTML document, the desired information should be processed from the **Design screen** to the cells.



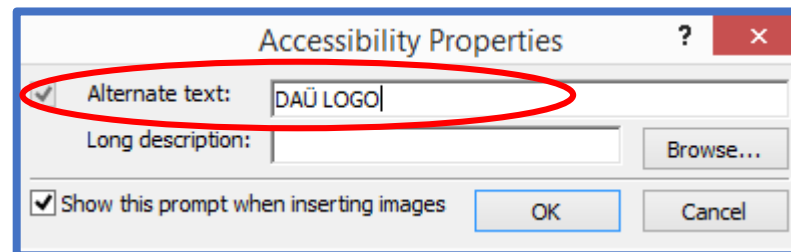
Plugins to a Document

- Many visual and audio add-ons such as video, audio or images can be added to the HTML document
- **To insert a photo or a picture** in an HTML document, you must use the Insert Picture From File button on the **General toolbar**.
- A window should be selected from the pop-up window and click the Insert button.



Plugins to a Document

- **Alternate text** should be entered from the window that will be opened just before the visual addition and **OK** button should be clicked. This information is used to identify the image.



Plugins to a Document

- If the added image is **too large or small**, it should be held by the mouse with the corners of the image and resized by the drag method.



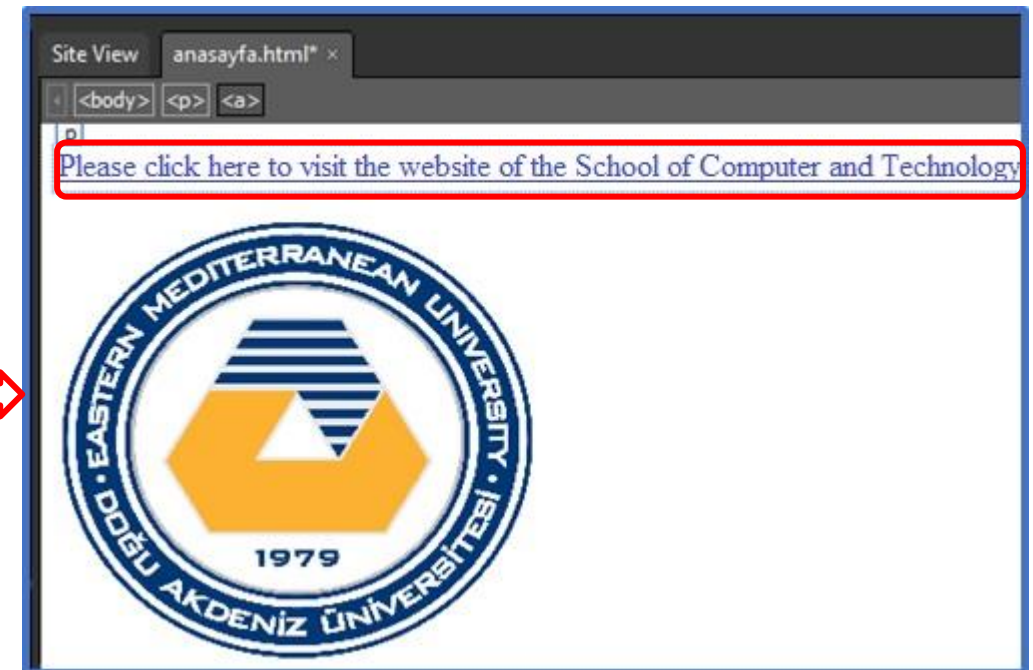
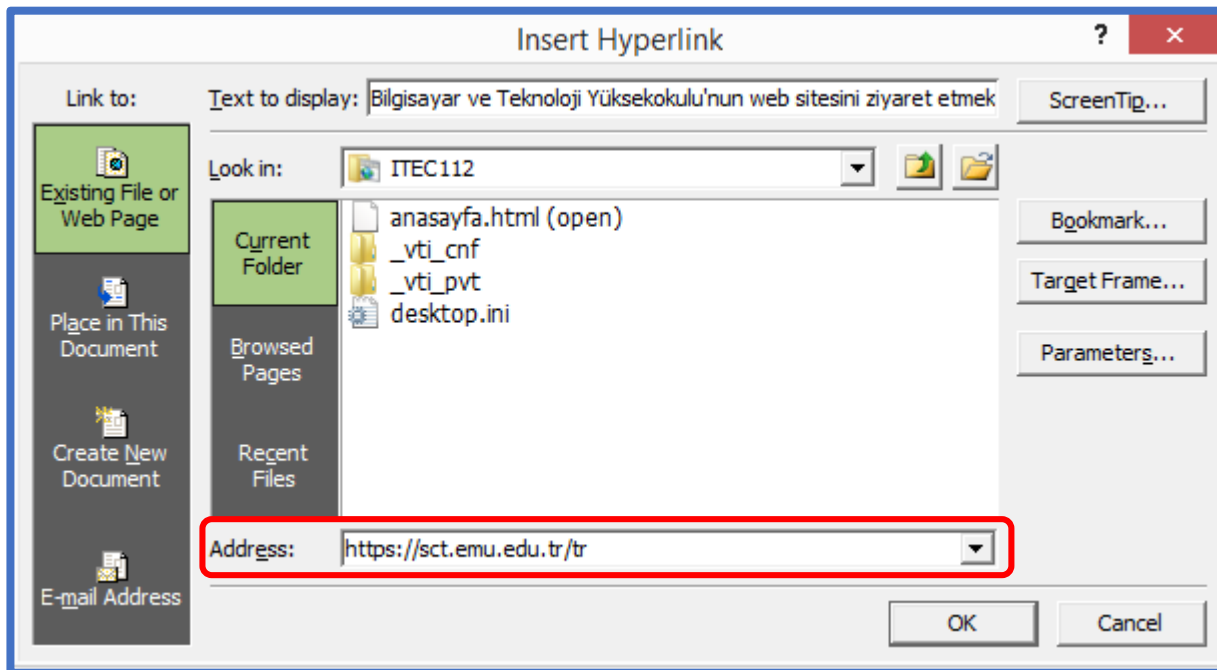
Creating Hyperlink between the Documents

- A hyperlink must be created from one HTML document to another document or another website.
- **To create a hyperlink** in the HTML document, a text or image must be selected, and then click the **Insert Hyperlink button** on the **Common toolbar**.



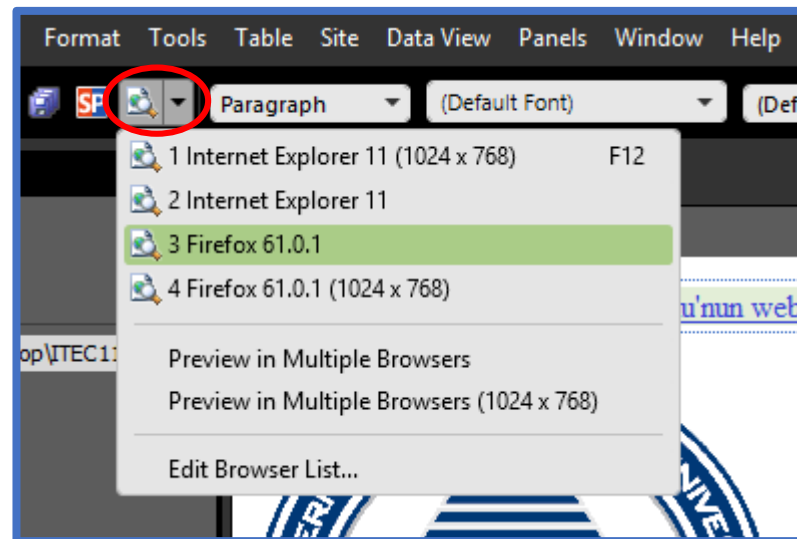
Creating Hyperlink between the Documents

- In the window that opens, the name of the document to which the hyperlink should be added or the **address** of the website should be written
- After clicking the **OK button**, the hyperlink information will be added to the content.



Viewing a Document in a Web Browser

- To display the HTML document in the web browser, the **View** button on the **General** toolbar should be used.
- The **Preview** button will list all the web browsers installed on your computer.



Viewing a Document in a Web Browser

- After selecting a web browser from the **Preview button**, the code compiler will run the selected browser and display the web page.

