**Practical work 02**

1. As computers don't understand any letters, characters and numbers except 0 and 1, we need to tell them how to interpret this digital information (ones and zeros) into characters (letters, numbers and symbols). To do this we assign specific numeric value to each character. This is called character encoding.
2. A byte order mark (BOM) is a special character from the Unicode standard that is placed at the beginning of a text file or stream. It is used to indicate byte order, confirm that text is Unicode encoded, and indicate which Unicode character encoding is being used. This allows the values to be correctly interpreted into symbols.

The main difference between UTF-8 with a BOM and UTF-8 without a BOM is that the BOM occupies three bytes at the beginning of the file, which can cause problems with some programs that do not expect or handle the BOM correctly.

1. ASCII art is an image making technique (or graphic design technique) in which ASCII characters are used to create various images. It arose due to the lack of graphics capabilities on early computers and printers.

**Example**



1. HTML entities are the reserved characters that are used in the HTML document. There are entity names and entity numbers. They are used to display characters which are reserved in HTML (so browser might mix them with tags) or characters which we usually don't have on our standard keyboard.
2. The <pre> tag in HTML is used to define the block of preformatted text. This helps to save all spaces, tabs, line breaks and other formatting which is usually ignored by browsers. The <code> tag is used to display content as a part of computer code which means that monospace font style will be used for it.

**The difference between ZIP and GZIP**

ZIP and GZIP are two very popular methods of compressing files, in order to save space, or to reduce the amount of time needed to transmit the files across the network, or internet.

Software that use the ZIP format are capable of both archiving and compressing the files together. These are two separate processes. Compression reduces the size of the file with the use of algorithms, while archiving combines multiple files, so that the output is a single file. GZIP is purely a compression tool, and relies on another tool, commonly TAR, to archive the files. The most important difference is that GZIP is only capable to compress a single file while ZIP compresses multiple files one by one and archives them into one single file afterwards.

**Feedback**

In this laboratory work everything was clear. The most difficult part of this work was making elements of an image clickable, because it was quite difficult to determine the necessary pixel coordinates. But I completed this task with the help of Figma.

I’ve learned some theoretical information about HTML, and also acquired some practical skills, such as making picture elements clickable, creating tables, nested lists and replacing standard markers in lists with pictures. Overall, this work was quite voluminous, but interesting.