University of Zielona Góra
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FILE AND FOLDERS OPERATIONS

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File and folders

✓FOLDERS

✓FILES

✓DATA COMPRESSION

✓BIT AND BYTE

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Folder operations

Folder is treated as a container for programs and files in the graphical user interface. Programs and documents on the disk are organized into folders, which can contain both files and additional folders.

Folder operations:

❑ CREATING A NEW FOLDER
❑ SELECTING MULTIPLE OBJECTS:
   ✓ using CTRL
   ✓ using SHIFT
   ✓ CTRL + A
❑ RENAME A FOLDER
❑ COPYING, PASTE, AND MOVING.

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File   it is a finite sequence of bits stored on a computer's hard drive. Files have a name followed by a dot and the extension [1].

File operations:

- ❑ CREATING A NEW FILE
- ❑ RENAME A FILE
- ❑ COPYING, PASTE, AND MOVING
- ❑ ENCRYPTING FILES
- ❑ PASSWORD PROTECTING DOCUMENTS.

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File operations

❏ **FILE ENCRYPTION**

This feature is extremely effective, but only when the computer is used by several users who have their own password-protected user accounts.

The encryption function allows you to protect access to files from another user (including protecting files from being opened and copied over the network).

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File operations

Compression consists of changing the way information is recorded in a file so as to simultaneously reduce its volume. The most commonly used data compression programs are **WINRAR** and **7ZIP**.

Data compression options:

- ❑ DELETE FILES AFTER ARCHIVING
- ❑ CREATE SFX ARCHIVE
- ❑ CREATE CONTINUOUS ARCHIVE
- ❑ PASSWORD COMPRESSION.

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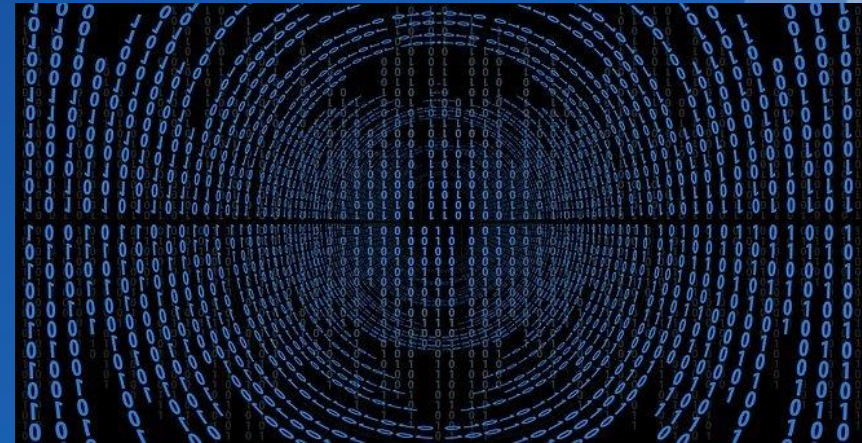e-mail: P.Wozniak-Chojnacka@kmti.uz.zgora.pl

Bit and byte

☐ **BITS (binary numbers)**

Computers store information using bits. A bit (short for "binary digit") is the smallest piece of information in a computer, holding a value of either 0 or 1. Computers use many bits to represent data that is more complex than a simple on/off value.

A two-bit string can represent
four (22) different values: 00, 01, 10, 11.

A string of three bits can represent eight
(2^3) different values: 000, 001, 010, 011,
100, 101, 110, 111 [2].

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Bit and byte

To define "meaningful" values, larger units are needed.

In such cases, the following are used:

- ✓ kilobit (abbreviated "Kb" or "Kbit"), i.e. 1024 bits,
- ✓ megabit (abbreviated "Mb" or "Mbit"), i.e. 1024 kilobits, i.e. 1048576 bits,
- ✓ gigabit (abbreviated "Gb" or "Gbit"), i.e. 1024 megabits, i.e. 1048576 kilobits, i.e. 1073741824 bits.

Bits and their subsequent multiples are used to define the throughput of connections (e.g. Internet or LAN). The speed is given per second:
- ✓ Kb/s,
- ✓ Mb/s (e.g. Fast Ethernet = 100Mb/s),
- ✓ Gb/s (e.g. Gigabit Ethernet = 1Gb/s) [3].

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Bit and byte

□ **BYTE**

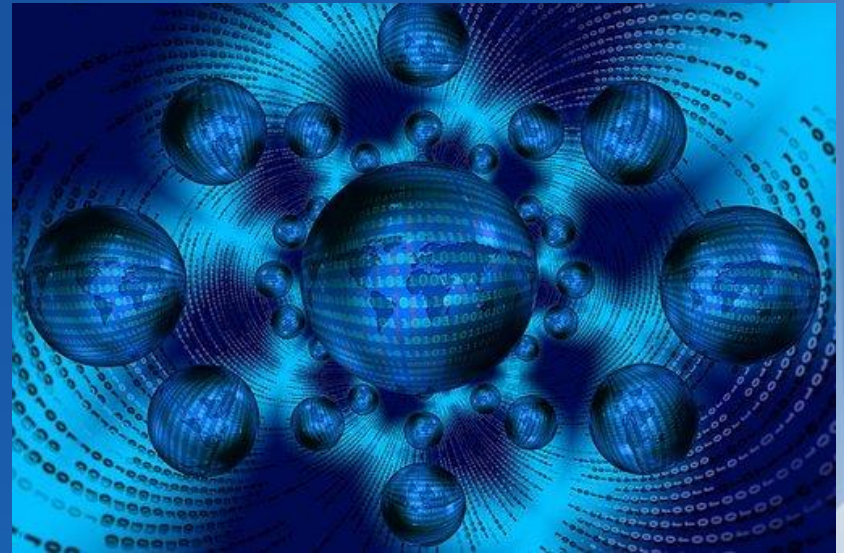A byte is a unit of digital information that consists of 8 bits.

One byte of information:
11110110
Three bytes of information:
00001010 01010100 11011011

Converting between bits and bytes
is a calculation: divide by 8 to convert
from bits to bytes or multiply by 8 to
convert from bytes to bits [2].

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Bit and byte

Byte multiples:

- ✓ kilobyte (abbreviated "KB") is 1024 bytes,
- ✓ megabyte (abbreviated "MB") is 1024 kilobytes, or 1048576 bytes,
- ✓ gigabyte (abbreviated "GB") is 1024 megabytes, or 1048576 kilobytes, or 1073741824 bytes
- ✓ terabyte (abbreviated "TB") is 1024 gigabytes, or 1048576 megabytes, or 1073741824 kilobytes, or 1099511627776 bytes.

"Byte" units are used to specify the capacity of RAM, hard drives, pendrives, etc. [3].

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[2] https://pl.khanacademy.org/computing/ap-computer-science-principles/x2d2f703b37b450a3:digital-information/x2d2f703b37b450a3:bits-and-bytes/a/bits-binary-digits

[3] https://www.sajdyk.pl/2014/04/jaka-jest-roznica-miedzy-bitem-i-bajtem.html

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