**Устная тема №3 (DIGITAL BASICS)**

*1.Digital revolution*

At present we live in the information age. It is a period of history when information is easy to access and it affects many aspects of everyday life. Digitization is the process of converting text, numbers, sounds, photos and video into data that can be processed by digital devices.

There are four phases of digital revolution. In the first phase computers were huge, complex and expensive devices.

The second stage was presented by personal computing which is characterized by small computers powered by local software. Local software refers to any software that is installed on a computer’s hard disk.

The third phase of the digital revolution started when computers became networked and when the Internet was opened to public use. A computer network is a group of computers linked together to share data and resources.

Cloud computing characterizes the fourth phase of the digital revolution. Cloud computing provides access to information, applications, communications and storage over the Internet. You can store your data in the cloud.

*2. Data representation, numeric and character data*

Data representation refers to the form in which data is stored, processed, and transmitted. The term to digitize means to convert raw data into digital format represented by 0s and 1s. These 0s and 1s are referred to as binary digits(«bits»). Computers use sequences of bits to digitally represent data.

Numeric data consists of numbers that can be used in arithmetic operations. Character data is composed of letters, symbols, and numerals that are not used in arithmetic operations.

A programmer creates human-readable source code using a programming language. A compiler or an interpreter converts source code into machine code. Machine code instructions are a series of 0s and 1s that correspond to a processor’s instruction set.

*4. The issue of fair use*

During the development of digital technologies the information became more available. It is wonderful to have access to any necessary information no matter where you are, but on the other side, it can be harmful. For example, for budget, because information need space to be stored there, and expenses for this should be paid by users.

Open access also can be dangerous for your safety, because you can be looked after when you enter any site, so you should be careful during finding necessary information over the Internet. You can also pay for information, but now it is a choice of everyone.