




# Information technologies in the professional sphere. Industrial ICT

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# Plan:

- ❖ The software for the solution of tasks of the specialized professional sphere.
- ❖ Modern IT trends in the professional sphere: medicine, power, etc.
- ❖ Use of search engines and electronic resources in the professional purposes.
- ❖ Safety issues in industrial information and communication technologies.



❖ **Application package-** a set of programs designed to meet the challenges of a certain class (functional subsystem, business application) method-oriented.


□ **the following types of PPP:**

? general purpose (universal);

? problem-oriented,

? global networks;

? organization (administration) computing process whole..



IFR general purpose- versatile software designed to automate the development and operation of the user's functional tasks and information systems as a By this RFP class includes:

- ? text editor (word processor) and graphics,
- ? spreadsheets,
- ? database management systems (DBMS);
- ? integrated
- ? packages; Case-technology;
- ? the shell of expert systems and artificial intelligence systems changes.

## ◆ **Spreadsheets.**

Spreadsheet called RFP for processing tables.

- The data in the table is stored in the cells located at the intersection of rows and columns. The cells can be stored numbers, formulas and character data. Formula values are set dependent on the contents of one cell to other cells. Changing the contents of a cell resulting in a change of values in the dependent cells.
- The most popular PPP of this class are products such as Microsoft Excel, Lotus 1-2-3, Quattro Pro, and others.



# Database Management Systems.

- ? To create a database inside the machine information support uses special IFR - database management system.

## 2. Modern IT trends in the professional sphere: medicine, power, etc.

- Computers have long been used in medicine. Many modern diagnostic methods based on computer technology. Such methods are surveys, as ultrasound or computed tomography, generally unthinkable without a computer. But in a more "old" methods of examination and diagnostic computers are invading more and more actively. Cardiogram and blood tests, the study of the fundus and dental health ... - It's hard to find an area of medicine in which computers have not been applied to more and more to.

- The information economy has changed many aspects of economic reality, in particular, and the function of money, that of a universal equivalent effort gradually turned into a means of calculation. Virtual banks and payment systems -. The fruit of development of information technologies
- in economics and business information technology applied to the processing, sorting and aggregating data for the organization of interaction of actors and computer technology, to meet the information needs for operational communications, etc.



### 3. Use of search engines and electronic resources in the professional purposes.

- The search engine (Eng. engine) - searchit is a computer system designed to for search information. One of the most well-known applications of search engines - web services to search for text or graphic information in the World Wide Web. There are also systems that can search for files on the FTP-server, goods in online stores, information in the Usenet newsgroups.



□ **According to the methods of research and service shared by four types of search**

? Systems using crawlers, systems controlled by a person, the hybrid system and the meta-system.

□ **The search system architecture typically includes:**

? · crawler that collects information from Internet sites or from other documents,

? · indexer, provides a quick search on the stored information, and

? · the search engine - a graphical interface for the user

# 4.Safety issues in industrial information and communication technologies.

- ? Information Security Concept of the Republic of (Hereinafter - the Concept) is designed to ensure that the interests of society and state in the information sphere.



Thus, the current state of information security is characterized by the following threats:

- ? 1) the imperfection of information security system and dysfunction of critical facilities information;
- ? 2) low level of production, the and the use of modern information and communication technology that does not meet the objective needs of and society
- ? 3) depending on the Republic of Kazakhstan on import of information technologies, informatization and protection of information, the use of which may cause damage to the national interests of the country;
- ? 4) the rise of information warfare between the world's leading centers of power, preparation and conduct of foreign states struggle in the information space; etc.

# Industrial ICT

- ? Information and communications technology (ICT) is an another extensional term for information technology (IT) which stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information.