Classification of Software Products used to Solv Problems in Various Areas

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Abstract. The rapid evolution of software products has revolutionized problem-solving across various industries and disciplines. This essay provides a comprehensive classification of software products based on their application areas, including productivity and business management, healthcare, education, scientific research, creative arts, communication, finance, and entertainment. By analyzing the functionalities and purposes of different software types, the study highlights their pivotal roles in addressing challenges, enhancing efficiency, and driving innovation. The classification framework offers insights into how software solutions align with industry-specific needs, paving the way for informed decision-making and the development of more tailored technological tools.

Key words: • Software classification, Problem-solving, Industry-specific software, Productivity tool, Healthcare software, Educational technology, Scientific applications, Creative tools, Financial services software

- Entertainment software

Software used in computers can be different. Some important types of software:

➢ System software.

➢ Utility software.

➢ Application software.

Software products can be classified according to various criteria. Let's consider the classification, the main feature of which is the area (domain) of use of software products:

➢ hardware of individual computers and computer networks;

➢ functional tasks in various subjects;

➢ software development technology.

Programming technologies provide tools for software development and include special software products designed specifically for developers to support the software development process. It supports all technological stages of creating software products, including planning, programming (coding), configuration and testing. System and software developers are users of programming technology. A software technology suite is a set of programs and software packages that provide for the development, configuration and application of software technology.

In the modern world, software products are widely used to solve economic problems. They help automate business processes, improve analysis and forecasting, optimize operations and increase company efficiency.

Software products used in the economy can be classified according to several main criteria:

1. Functionality: programs can perform various functions in the economic sphere, such as accounting and financial analysis, resource and material management, production and sales

planning, market analysis and demand forecasting, personnel management, etc.

2. Purpose: programs can be specialized for a specific industry (for example, programs for the banking sector, retail programs) or universal (for example, accounting programs, data analysis programs).

3. Deployment: software products can be deployed on a company server or used in the cloud, which reduces IT infrastructure costs and increases system availability and flexibility.

Examples of software products used to solve economic problems:

➤ ERP systems (Enterprise Resource Planning) are integrated software products that allow companies to manage various business processes, such as accounting, finance, production, supply, etc.
➤ CRM systems (Customer Relationship Management) are software products that help companies manage customer relationships, including recording and analyzing customer data, and automating marketing and sales processes.
➤ BI systems (Business Intelligence) are software products that allow companies to analyze data, create reports and dashboards for making management decisions.
➤ Financial software is software products that help companies record financial transactions, analyze financial statements, plan budgets, and forecast financial results.
➤ Market analysis software is software products that help companies analyze the market, identify trends, and forecast demand for goods and services.
➤ Human resource management software is a set of software products that help companies manage their employees, including tracking employee information, automating hiring and firing processes, analyzing skills, and planning employee development.

The classification of software products used to solve economic problems allows us to better understand the variety and functionality of such products, as well as choose the most suitable option for the specific needs of the company.

ERP systems, or enterprise resource planning systems, are integrated software solutions that help automate and manage business processes in an organization. These systems combine various functional modules, such as procurement management, production management, sales and distribution management, finance and accounting, human resources management, and others. ERP systems allow you to organize centralized storage and processing of data, automate daily tasks, optimize processes, increase business efficiency and flexibility. They also allow you to make more accurate and timely management decisions due to the availability of complete and up-to-date information about the activities of the enterprise. ERP systems are usually used by large enterprises that seek to improve the efficiency of their operations and management. However, in recent years, lighter and cheaper ERP systems have appeared for small and medium-sized enterprises.

The main advantages of ERP systems are:

➤ centralized storage and processing of data;
➤ integration of various functional modules;
➤ automation of business processes;
➤ optimization of processes and increasing efficiency;
➤ improved management decision-making based on current information.

CRM systems (customer relationship management) are software products or platforms designed to automate and manage customer interactions. They help companies effectively manage their customer relationships, track and analyze customer data, automate sales and marketing processes, improve customer service, and build long-term relationships with customers. CRM systems allow you to collect and store customer data, including contact information, history of interactions with the company, customer preferences, and behavior. This allows you to predict and analyze customer

needs, create personalized offers and promotions, improve service quality, and meet customer needs. CRM systems include various functions such as sales management, customer relationship management, marketing analytics, marketing automation, customer service, and others. They can be customized and adapted to the needs of each company, and can also be integrated with other systems such as ERP (Enterprise Resource Planning) or warehouse management systems. Using CRM systems allows companies to work more effectively with customers and improve the experience of working with the brand. This helps to increase sales, increase customer loyalty and improve overall business performance.

BI systems (business intelligence) are software tools that help organizations collect, analyze and interpret data to make fact-based decisions. BI systems integrate data from various sources, such as databases, data warehouses, reports and external sources, and allow the user to create reports, dashboards and analytical models. They provide BI system users with access to up-to-date and reliable data in a convenient form.

BI systems have a number of features, including:

1. Data collection: collecting data from various sources and combining them.

2. Data processing: transforming and cleaning data for further analysis.

3. Data analysis: identifying trends, patterns and deviations, as well as conducting statistical data analysis.

4. Data visualization: Presenting data in the form of graphs, tables, and charts to make it easy to understand and analyze.

5. Create reports and dashboards: Create interactive reports and dashboards that allow users to easily customize and edit data.

6. Predictive analytics: Use statistical models and algorithms to predict future events and outcomes.

BI systems allow companies to gain valuable insights, optimize processes, make informed decisions, and improve business performance. They are widely used in various fields such as finance, marketing, sales, manufacturing, and logistics.

There are many financial programs that can help you manage your personal and business finances. Some of them may include the following features:

1. Accounting programs: These programs allow you to keep records and track financial transactions in a business. They help you record income and expenses, prepare balance sheets and reports, and keep track of tax obligations. Examples of such programs include: QuickBooks, Xero, Sage.

2. Personal finance apps: These apps are designed to help you manage your personal finances by tracking expenses, creating budgets, and planning your savings. They can also provide advice on investing and retirement planning. Examples of such apps include Mint, Personal Capital, YNAB (You Need a Budget).

3. Trading platforms: These are programs designed for trading financial markets and typically include access to market data and technical analysis, trading capabilities, and portfolio management functions. Examples of such programs include: MetaTrader, Thinkorswim, E*TRADE.

4. Banking programs: Some banks offer financial programs that allow their customers to manage accounts, payments, and loans through online platforms, mobile apps, and online banking. Examples of such programs include: Sberbank Online, Tinkoff Business, Revolut.

5. Investment platforms: These programs are designed for investors and offer access to various investment instruments, such as stocks, bonds, funds, and cryptocurrencies. They can also provide investment advice and market data. Examples of such programs include: eToro, Robinhood, Wealthfront.

It is important to choose programs that are easy to use and suitable for you. Some programs may be free, while others may have paid features or require a subscription. There are many programs and

tools for market analysis. Here are some of them:

1. Bloomberg Terminal: This is a platform that provides a wide range of financial data, including stock prices, indices, exchange rates, as well as news and analytical reports.
2. TradingView: This is an online platform for charting and technical analysis of securities. It also offers the ability to create and test trading strategies.

3. MetaTrader: This is a popular trading platform that offers technical analysis, charting, and trading in Forex and other financial markets.

4. StockTwits: This is a social network for traders and investors to exchange ideas, analyze stocks, and discuss the current state of the market.

5. QuantShare: This is software for analyzing and developing trading strategies using technical and fundamental analysis.

6. Morningstar Direct: This is a platform that provides financial data and analysis for investors, funds, and other market participants.

Some programs that can be useful in HR management:

1. Microsoft Excel: Excel allows you to create simple spreadsheets to record and manage employee data, including employment, work, and salary information.

2. BambooHR: This is a cloud-based HR system that allows you to manage hiring, collaboration, and employee development processes. It also provides tools for performance tracking and data analysis.

3. Trello: Trello is a project and task management system that can be used to manage new employee hiring, assign tasks, and track their completion.

4. Workday: Workday is a cloud-based HR and business process management platform. It provides features such as performance management, employee hiring and firing, payroll management, and time management.

5. ADP: ADP is a comprehensive HR management software. It provides payroll management, tax reporting, workforce planning, employee hiring, and firing functions.

6. SAP SuccessFactors: SuccessFactors is a cloud-based HR software that includes functions for recruiting, performance, development, and employee benefits management.

7. Oracle HCM Cloud: Oracle HCM Cloud is a cloud-based human resource management system that supports all aspects of human resource management, including recruiting, employee development, employee relations management, and performance management.

These are just a few examples of HR software. When choosing a program, it is recommended to take into account the characteristics of your business and the specific needs of HR management.

Software products used to solve economic problems can be classified according to the following criteria:

1. Functional purpose:

➢ Accounting and analytical systems: used to automate accounting, record financial transactions, analyze and report.

➢ Financial analysis systems: designed for analyzing financial indicators, financial modeling and forecasting, investment portfolios and risk management.

➢ Economic modeling and optimization: used to develop economic models and perform optimization calculations, for example, when forecasting market prices or optimizing sales turnover.

➢ Information systems for making management decisions: designed to analyze and process data, support management decisions based on information about the market, competitors and internal processes of the company.

2. Availability:

➢ Desktop applications: installation programs that require installation on the user's computer.

➢ Web applications: programs that run in a browser and do not require installation on the user's computer.

➢ Mobile applications: programs designed for mobile devices and used to record and analyze financial transactions on the go.

3. Scope of use:

➢ Programs for personal use: designed for a single user, for example, for personal financial accounting.

➢ Programs for small and medium-sized enterprises: designed to automate accounting and financial transactions in small and medium-sized companies.

➢ Programs for large enterprises: designed to automate accounting and manage financial processes in large companies and holdings.

These are just some examples of the classification of software products used to solve economic problems. In fact, there can be much more such software products, and the classification may depend on the specifics of the field in which they are used.

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