

Examrace

Competitive Exams: Types of Programs

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The operating system contains several types of programs: a supervisor program, a job control program, an input/output management system, language translation programs, library programs, and utility programs.

1. **Supervisor Program:** The supervisor program also called the monitor or executive, is the major component of the operating system. It coordinates the activities of all other parts of the operating system. When the computer is first turned on, the supervisor program is the first program to be used. The supervisor schedules * the order of input and output operations. It also sends messages to the computer operator if an error occurs or if the computer requires additional direction.
2. **Job Control Program:** A Job is a unit of work to be processed by the CPU. Job control commands are used to identify the beginning of a job, the specific program to be executed, the work to be done/and the input/output devices required. The job control program translates the job control commands written by a programmer into machine language. Machine language, the language that the computer is able to execute directly, will be discussed later in this chapter.
3. **Input/Output Management System:** When a user-written program requests information to be transferred into or out of main memory, the input/output I/O management system oversees and coordinates the process. Input and output devices are assigned to specific programs and information is moved between the devices and memory locations.
4. **Language Translation Programs:** A computer can only execute instructions that are in machine language, which consists of Is and Os. In order for the computer to use English-like programs such as those written in Pascal, it must use a language translation program. This program translates the English-like program into machine language. There are two types of language translation programs: Interpreters and compilers.
5. **Library Programs:** Library programs are user-written or manufacturer-supplied programs and subprograms that are frequently used in other programs. They perform commonly needed tasks. Library programs are stored in a system library and called into main memory when needed. They are then linked together with other programs. An example might be a routine that alphabetizes lists of data. When the programmer needs something alphabetized, he or she can merely instruct the computer to execute the needed library routine.

6. Utility Programs: Utility programs performs specialized functions. For example, a utility program can transfer data from a tape to a disk, to another tape, or to a printer.

Application Programs

While system programs meet the computer's needs application programs meet the user's needs. Application programs are the programs that use the computer to solve specific problems. In your school, for example, an application program might average and print your grades. In business, application programs calculate payrolls, performs the accounting for income and expense, and provide reports for managers.

Software Copy

Many people in the computer industry “including young programmers lose a great deal of money because of illegal copying of software. Software authors and publishers invest large amounts of time and effort to produce good programs. Copying really means that money has been” stolen" from the developers of software. It also means that hard work goes uncompensated.

Some people who copy software state that television viewers videotape copyrighted television tv. Programs. Home taping of television shows does OL affect the market value of the show. Copying software does affect the profits that publishers and authors receive for producing a program.

Other people believe that software prices are too high. They object to being called pirates because of their software copying. They insist that they are not selling any programs to make a profit. They only want to save money. Software companies have raised their prices to make up for profits lost because of illegal copying.

Another reason given for copying disks is that people do not want to spend money on a program that might turn out to be useless, or at least not meet their needs. But today that is not a good excuse. Commercially available software has improved a. Great deal over the last ten years. Computer magazines review software so that buyers will be more knowledgeable about a particular program. Many manufacturers distribute “demonstration” disks which are abbreviated versions of their software. People interested in this software can use the demonstration disk to determine if itthey want to purchase the entire package.

Software companies have tried to protect disks against copying with specific disk formats. If a disk copy-protected, software buyers cannot make a backup in case something happens to the original disk; this upsets the buyer. Therefore, most software companies today do not copy-protect their disks. However, the software comes with a licensing agreement that states how the buyer can use the; software, what kind of backups the buyer ban make and so forth.

Whenever you purchase so software package, be sure to read the licensing agreement carefully.

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