

# Application and Analysis of Computer Programming Software Development Technology Based on Cloud Computing

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**Keywords:** Cloud Computing; Computer Programming; Software Development

**Abstract:** With the advent of the information age, the popularity of computers and the development of mobile Internet, cloud computing has received extensive attention and in-depth research worldwide. It can be said that cloud computing has become the mainstream trend of future computer and Internet development. Programming, as an important part of computer information technology, needs further development and research in order to further enhance its intelligence and diversity. Programming is generally designed to achieve a certain function, so its purpose is very functional. In the process of programming, there are many factors affecting the quality of the program. In the process of development, computer programming not only includes the development of programming language, but also the development of programming methods. The versatility of a computer is primarily achieved by writing a high-level language that gives the computer a powerful function. Through the network management technology, the huge computer system program is automatically divided into a plurality of sub-programs, and then the computer server divides the split sub-programs into specific data and transmits them to the user.

## 1. Introduction

Cloud computing, with resource leasing, application hosting and service outsourcing as its core, has rapidly become a hot spot in the development of computer technology. Through the application of cloud computing, shared hardware and software devices can be provided to users according to their needs [1]. Developers apply cloud technology to the management of experimental resources of computer and software, which changes the management mode of traditional experimental resources of software and reduces the loopholes in traditional experimental resources management [2]. Integrating several resources within a specific range into an organic whole, sharing data among all resources and working together can be understood as grid computing. However, due to the complexity of grid technology, interoperability between grid systems is difficult to achieve [3]. In the design of computer programs, it is necessary to strengthen the comprehensive consideration of software problems, and to be aware of the situations involved in computer programming, and to select the most optimized method. In the design process of computer programs, it mainly includes analysis requirements, core tasks, input and output [4]. In the whole process of program design, the relevant personnel involved in computer program design should understand the needs of the users. After having a certain understanding, they must master the core tasks and the specific requirements of input and output, and then figure out the calculation method. Make settings. Programming is done using symbols that are easy for humans to understand. Until the development and implementation of the high-level programming basic language C language, the Java language was subsequently developed and utilized. Assembly language is mostly designed for a specific computer or computer system, so people must use the machine to do the relevant work when doing related work [5].

The characteristics of high-level language and the advantages of assembly language can not only compile system applications, but also programs that do not rely on computer hardware [6]. Learners may produce many kinds of reactions (including stress response and operational response). Cloud computing is simple and convenient in the process of operation. It distributes the data and information needed by users rapidly at each network connection point, and forms a large network

structure of the data to be queried and used. In these reactions, only information-related reactions are operational reactions. After learners have made operational reactions, they should be strengthened in time [7]. The computer can convert the designed algorithm into the application program of the computer according to the program written. Of course, programmers also need to pass the final test and debugging of the computer to ensure that there will be no problems in the program, in order to ensure the normal operation of the computer [8]. When the lifetime of data stream is long and the capacity is large, the queue length will increase continuously until the data packet is discarded or the queue is reconstructed. When the data packet with small data volume appears behind the data packet with large data flow, the probability of delay will increase [9]. The computer application needs to be converted into a language that the computer can recognize, and it can be operated normally after being correctly recognized by the computer. The computer language first uses a binary calculation method, and the binary is composed of 0 and 1. The language has a strict structured form, rich and complete data types. And in the process of use, it has a very high operating efficiency, but also has a strong ability to check. There are many programming language types that are used in computer programming. The original use of machine language was designed to enable computer programs to function properly, so they had to be turned into machine language. Maximize the practical role of program functions and promote the rapid development of the computer software development industry [10].

## 2. Materials And Methods

Like division of labor and cooperation, it simulates the real world as a series of processes in which information exchange is the only way to interact. Because there is no shared memory between processes, there is no lock, no synchronization method, and there is no possibility of memory contamination. Through cloud computing technology, users can quickly process and analyze tens of millions or even billions of information in a few seconds, so as to achieve the purpose of network computing and analysis services. When the client sends a task request and the server receives the request, it sends a computing processing request to its sub-server cluster, and multiple nodes of the sub-server receive the request at the same time. When a program runs, it sometimes needs to modify the data or records, and so on. These operations sometimes cause the problem of the program to change. The computer uses the language of the program. The computer program is the basis of the operation of the computer. Through the programmer's work in writing and designing the instructions, the computer can pass the relevant instructions. In the datagram of the protocol, two bytes of the data source number and the receiving end number are respectively set, and the calculation method is also converted into an application program, which needs to be completed by means of a programming language, and is executed by the computer after completion. Operation, and finally test and debug the application, on this basis to ensure the normal and sTable operation of the program. The datagram parameters are shown in Table 1 and Figure 1. Then, on the basis of continuous updating of information technology, visual programming has been innovated and developed. Its main function is to work on the aspects of programming requirements through the call of the control and the setting of the properties of the control object. And in a strict logical sequence of procedures, the information is transformed into a series of questions and answers, leading to step by step to achieve the desired goals.

Table 1 Datagram parameters

	Connect	Constraint
Data Source End Number	13.85	12.65
Accept end number	14.78	12.31

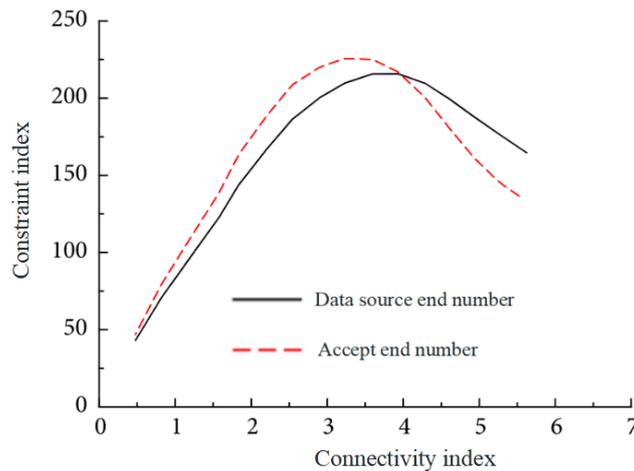


Figure 1 Datagram parameters

Loop structure is an important type of structure, which is characterized by repeated execution of loop segments in the loop body when a given condition value is true. Therefore, the variables used in the subprogram module are often local variables, while the variables used in the whole program module are global variables. In addition, pointer, structure and union are flexibly used in C language. The learning individual acts on the environment, and the activity process can be transformed into a specific information processing process. Since people living in the world want to survive, they must exchange information with their environment. As cognitive subjects, people also exchange information with each other. This phenomenon makes computer programming language gradually form its own independence in the process of development. The innovative development of computer programming language provides powerful help for the development of computer applications. However, in the process of using, due to poor portability, the design of the program is difficult and cumbersome, which is not conducive to the further development of the program design. However, with the emergence of visual programming methods, you can call controls and set properties for control objects. In the cloud computing environment, since the server is any idle computer in the data center, when the server providing the computing service has an abnormal situation such as a crash, the cloud computing system must reselect a server for the user to continue to provide services for the user. If the technician finds that there is a problem, he can use the technology to make targeted automatic modification of graphics, data and arithmetic, and then modify it to determine the result must be accurate.

Cloud computing for individual users, data and information can be stored in the cloud data center of the Internet, thus ensuring the security of data and information. Computer language can be designed appropriately according to a specific computer system, and it can independently complete its work by memorizing good address symbols. All outputs will be stored in different serial numbers according to the array, which can be used to partition the output of data for later operation. In actual software development, various data resources are mutually constrained and constrained. These constraints and constraints between data will also have a corresponding impact on programming. Learning requires the construction of representations of things and their extreme processes. But it is not a direct copy of the outside world, but through the existing cognitive structure to process new information and build. In this process, each learner encodes new information based on his or her own experience system. However, since the computing resources of these data centers are limited, the computing resources on the user terminals are wasted idle. Although the computing power on a single user terminal is limited, due to the huge amount of users, if these user terminals are The computing resources are grouped together, then this amount is amazing. To be placed at the beginning of the source program to prevent duplication and to stop compiling, the selection of general control instructions can be multiple times. Therefore, selecting the correct control command can speed up the program debugging process.

### 3. Result Analysis and Discussion

Define a value that stores the file in memory if the output file is less than or writes the content to the hard disk if the temporary file is larger than the closed value. Through the computer system, the data and information needed by users are quickly distributed in various network connection points, and the data collection, collation and analysis are completed in the shortest time through cloud computing for fast processing and analysis. The storage location of each data is recorded, and then the comparison data is searched according to the specified rules to realize the operation of data comparison and position exchange, so as to achieve the optimization function. The data rate and queue length are analyzed, and key values are set respectively. When the data transmission rate exceeds the key value, the receiving window is adjusted to restrict the transmission rate of data messages in reverse, so as to avoid congestion. The realization of a specification is a program, which defines behavior in the form of a process and describes how to do it to achieve the desired purpose. The correctness of the program proves that formal derivation and understanding of program functions largely depend on the accuracy of the specification. It simplifies the length of the program to a certain extent and makes the program simple. The selection structure is to select the corresponding execution path according to the relevant branch conditions, and it is necessary to select a more adaptive execution path in computer software programming.

Selection structure is actually a logical structure of judgment + branch execution. According to the number of branch paths, there are single branch selection structure, double branch selection structure and multi-branch selection structure. When setting variable data, we should set variable data as reasonably as possible and use the smallest unsigned data type on the premise of meeting the needs of computer software programming to the greatest extent. Array attributes allow you to read and set the entire array of attributes. Binding attributes when their values change. When the value of a `rejectTable` attribute changes, it must be verified by the `rejectTable` attribute change listener before it can take effect. When establishing multiple connection channels, the source data is divided into several parts, and then sent out through different paths. It is more complicated to establish multiple paths than to establish only one path. In order to facilitate the connection end to establish a connection path, the receiving end should return all the address information of the receiving end. The cloud computing database is relatively large, and it can quickly acquire the required resources in a complex network environment, and organize and analyze it, which can ensure the orderly operation of the software experimental resource management and reduce the risks in the running process. If the initial state of the keyword is a positive order, when two or more keywords are required to be compared, according to the specific requirements of the program design. All output pairs form a simple inverted index. It can simply increase the calculation of the position of the tracking word.

Usually a sequential program consists of definitions, assignment statements, input and output operations. It follows a top-down sequence to run the program one by one. By constructing a relatively simple and complete procedure, it can be used relatively independently. Loop structure is the need for repeated execution of some statements in various data operations and processing. Management information system is dominated by people, and always depends on computer hardware and software and other computer equipment. The main function of information management system is embodied in three aspects: collecting information, processing information and processing information. Algorithms expressed by recursive relations through formal deduction are creative work in software development. They should be implemented by partial formal methods. The recursive relations relate to loop invariants, and from algorithm to program development. Before the communication, the connection confirmation needs to be established first, that is, the three-way handshake must be performed. After the three-way handshake is completed, the data receiver starts to send the datagram after receiving the instruction. The main thing is to compare only two data at a time, and constantly adjust the data position according to the results until the data is compared. In general, only one auxiliary unit is used, and the basic functions of the auxiliary unit are used to complete the re-discharge of data. User requirements are transmitted to the various mesh connection points through the internal program of the cloud computing. It is specifically divided

into static priority scheduling and static priority scheduling. The static priority scheduling is mainly based on the priority number specified by the user when submitting the task. In the subsequent running cycle, the excellent level cannot be changed, and the information provided by the user is collated, analyzed and effectively processed in a short time. After receiving specific conclusions, feedback to the user in a timely manner.

#### 4. Conclusion

In this paper, the application of computer programming software development technology based on cloud computing is analyzed. When there is a task in the waiting queue, how to shorten the decision response time in the decision-making part, and will continue to improve the scheduling efficiency of the scheduling. Cloud computing is applied to the management of computer and software experimental resources, which facilitates different users to access information resources and improves the utilization rate of resources. Strengthening the performance of program design is an important means to expand the application field of computer technology. Using different methods, the program is divided into many small sub-modules, so that each small sub-module becomes a single function, simple understanding and reasonable structure of the small program. The differences of computer program functions are realized to meet various application requirements. A series of programming can be done in the window interface of the computer. It can be said that the way of visual programming has a very important impact on improving the speed of programming. As a parameter of the function, a variable value of the variable value can be obtained each time, so that the memory occupied by the repetition is released. The datagram traffic is monitored in real time, and its rate is calculated and judged, so that the acceptance window can be adjusted in real time.

#### Acknowledgement

Major Science and Technology Project of Inner Mongolia Autonomous region in 2018 “Intelligent edge computing device supporting various applications with integration of communication, computing, and storage capabilities”.

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