There exist a lot of different approaches for each of those tasks..  
 It is very difficult to determine what are the most popular modern programming languages.  
Many applications use a mix of several languages in their construction and use.  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
Integrated development environments (IDEs) aim to integrate all such help.  
For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software.  
 Programs were mostly entered using punched cards or paper tape.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
Ideally, the programming language best suited for the task at hand will be selected.