It is very difficult to determine what are the most popular modern programming languages..  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
Scripting and breakpointing is also part of this process.  
Many applications use a mix of several languages in their construction and use.  
The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Ideally, the programming language best suited for the task at hand will be selected.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
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.  
As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
 Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code.  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.