There exist a lot of different approaches for each of those tasks.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
Use of a static code analysis tool can help detect some possible problems.  
Techniques like Code refactoring can enhance readability.  
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Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
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Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
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.  
To produce machine code, the source code must either be compiled or transpiled.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
The purpose of programming is to find a sequence of instructions that will automate the performance of a task (which can be as complex as an operating system) on a computer, often for solving a given problem.