Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks..  
Programming languages are essential for software development.  
Use of a static code analysis tool can help detect some possible problems.  
Methods of measuring programming language popularity include: counting the number of job advertisements that mention the language, the number of books sold and courses teaching the language (this overestimates the importance of newer languages), and estimates of the number of existing lines of code written in the language (this underestimates the number of users of business languages such as COBOL).  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
There exist a lot of different approaches for each of those tasks.  
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.  
Trade-offs from this ideal involve finding enough programmers who know the language to build a team, the availability of compilers for that language, and the efficiency with which programs written in a given language execute.  
Techniques like Code refactoring can enhance readability.  
 Different programming languages support different styles of programming (called programming paradigms).  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
 Code-breaking algorithms have also existed for centuries.  
 Programs were mostly entered using punched cards or paper tape.