Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users..  
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.  
Many applications use a mix of several languages in their construction and use.  
 Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
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).  
 Different programming languages support different styles of programming (called programming paradigms).  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
Techniques like Code refactoring can enhance readability.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.