Ideally, the programming language best suited for the task at hand will be selected.  
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.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
Transpiling on the other hand, takes the source-code from a high-level programming language and converts it into bytecode.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
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).  
In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams.  
Transpiling on the other hand, takes the source-code from a high-level programming language and converts it into bytecode.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
Many applications use a mix of several languages in their construction and use.  
There exist a lot of different approaches for each of those tasks.  
Many applications use a mix of several languages in their construction and use.  
Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances.  
 Following a consistent programming style often helps readability.  
One approach popular for requirements analysis is Use Case analysis.