There exist a lot of different approaches for each of those tasks..  
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.  
  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
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.  
Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Many applications use a mix of several languages in their construction and use.  
 Different programming languages support different styles of programming (called programming paradigms).  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
Techniques like Code refactoring can enhance readability.  
 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.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.