Software is written by professionals known as computer programmers. Most programmers in large corporation’s work in teams. Individual programmers can work for profit, as a hobby, or as students.

Computer programs consist of data structures and algorithms. Generally, programmers create software by using the following development process:

(1) Understand the software's requirements.

(2) Create the software's specifications.

(3) Write the code—the program instructions encoded in a particular programming language.

(4) Test the software to see if it works according to the specifications and possibly submit the program for alpha testing, in which other individuals within the company independently test the program.

(5) Debug the program to eliminate programming mistakes, which are commonly called bugs.

(6) Submit the program for beta testing, in which users test the program extensively under real-life conditions to see whether it performs correctly.

(7) Release the product for use or for sale after it has passed all its tests and has been verified to meet all its requirements.

These steps rarely proceed in a linear fashion. Programmers often go back and forth between steps 3, 4, and 5. If the software fails its alpha or beta tests, the programmers will have to go back to an earlier step.