A Programming language is a notational system for describing computations in a machine and human readable form.
The 'first do this, next do that' is a short phrase which really in a nutshell describes the spirit of the imperative paradigm.

The basic idea is the command, which has a measurable effect on the program state.

The phrase also reflects that the order to the commands is important. 'First do that, then do this' would be different from 'first do this, then do that'.
Functional programming is in many respects a simpler and more clean programming paradigm than the imperative one.

The reason is that the paradigm originates from a purely mathematical discipline: the theory of functions.
Logic Programming

Characteristics:

- Discipline and idea
  - Automatic proofs within artificial intelligence
- Based on axioms, inference rules, and queries.
- Program execution becomes a systematic search in a set of facts, making use of a set of inference rules
The object-oriented paradigm has gained great popularity in the recent decade.

The primary and most direct reason is undoubtedly the strong support of encapsulation and the logical grouping of program aspects.
Languages

- Imperative Language representatives
  - Fortran, Algol, Pascal, Basic, C

- Functional Languages
  - Scala

- Logic Programming Language
  - Prolog

- OOP
  - C++