CS131 Homework #3 (15 pts)

1. (5 pts) Translate the following sentences into formal logic, explaining the domain of the variable x and the meaning of the propositional functions.

In a, b, c use all people as a domain of x.

* 1. Every student of CS131 knows Python and Java.
  2. Some students of CS131 know C or C++ or C#.
  3. Every student majoring in CS that gets a grade less than C in CS131 needs to retake it.
  4. For NFC (near-field communication) between phone devices to work, they have to be no more than an inch apart. (Phones being close is necessary for NFC to work).
  5. For every real number ε > 0, there exists a positive number C such that |f(x) – L| < ε whenever x > C.

1. (4 pts) Name four main programming paradigms and a corresponding programming language.
2. (6 pts) Using facts and rules of a Prolog program at slides 5 and 6 of Lecture 7 make Prolog queries: “who is instructor of CS301?”, “who is taking CS301?”, “what professors are teaching student kiko?”, and write Prolog responses to these queries.