Class: CSCI 374

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Date: 2/13/2016

Assignment Ch. 1 & 2

3) What arguments can you make for the idea of a single language for all programming domains?

To have only one programming language that can serve all purposes is ideal. All the machines can communicate with each other and fix each other. It can also eliminate large amount of time it takes a programmer to learn a new language.

4) What arguments can you make against the idea of a single language for all programming domains?

Different programming languages serve different purposes. No one programming can perform all computation. In order to build a functional yet efficient program, an appropriate programming language should be selected base on the purposes.

5) Name and explain another criterion by which programming can be judged.

Scientists invented Fortran to perform varies arithmetic calculations. COBOL was designed for business applications. Fortran cannot be used to develop any business application and vice-versa.

10) What are the arguments for writing efficient programs even though hardware is relative inexpensive?

Programmers need to have extensive experience in programming with specific language in order to write an efficient program. If the programmers are not experienced with specific programming language, then they will need more time and hands on training to develop their skill further.

15) How do type declaration statements for simple variables affects the readability of a language, considering that some language do not require them?

Type declaration statements can affect readability of a language by confusing the programmer. The values stored in the variables are subjected to change throughout the programming. For some languages that do not require type declaration statements are more reader friendly.

Ch. 2

6) Make an educated guess as to the most common syntax error in Lisp programs.

Since LISP contains many parentheses in syntax, missing or misplacing a parenthesis is the most common mistake in LISP.

7) LISP began as a pure functional language but gradually acquired more and more imperative features. Why?

As time goes on, technology becomes more and more advance and sophisticated. In order to make Artificial Intelligence more functional, flexibility is needed in LISP programming. The artificial intelligence should be able to learn to recognize new problem and solve it. Or a flexibility in adding new information.