CS1001

Lecture 16

Overview

- Java Programming
- Midterm Review

Goals

- Learn to read/understand Java

Assignments

- Brookshear: Ch 1, Ch2, Ch 4, Ch 5 (Read)
- Read linked documents on these slides (slides will be posted in courseworks)
- http://java.sun.com/docs/books/tutorial/

Midterm

- History – Know people and the point of their contributions. Be prepared for short answers (2-3 sentences)
- Hardware – Know the main parts of a computer (processor, memory, etc). Understand that programs and data are *both* information and can be stored in some sort of memory.
- Assembly – given a simple assembly language, write a short (very short) program
- Problem solving – identify a problem with a given algorithm

Midterm

- Networking: TCP vs UDP
- Good/bad design features: be able to name a few usability features
- Modern architecture: privacy, centralization (references on review sheet)
- Programming: given program x, what does it output when run?
- Find the error (*not* syntax errors; logic errors only)

Chapter 1

- What is an algorithm?
- Design an algorithm to do …
  - Beware of exceptional cases/pitfalls
- Base Conversion
- Read History links

Chapter 2

- 2.1 – Program Execution
- 2.2 – Modern Architectures
- 2.3

Chapter 3

- 3.5 - Networks
- 3.6 - Protocols
- 3.7 - Security

Chapter 4

- Algorithm Design (Read All)
- No specific facts from this chapter will appear on the exam

Chapter 5

- Read 5.1, 5.2, 5.3
- Questions on this material will be expressed using Java

Chapter 6

- Software Engineering
- User centered design (slides)
- Usability video
- Skim Ch 6
- The world wide web! Read slide links, especially the one on the semantic web

Chapter 8

- 8.2 - Files

Format

- History – factual and importance (short answer)
- Design an algorithm (in English and in a given assembly language)
- Base Conversion (math)
- Short answer on network protocols
- Web - short answer about information organization (no HTML)
- Usability (short answer)
- Java Code – find the error (not syntax)
- Java Code – what does the following program do?