

CS111 2nd Midterm Prep -- Fall 2007

General Topics

Everything up through the 1st midterm

Functions

- defining your own
- returning output from function
- use of None
- using functions you've defined
- default values for parameters
- variable lifetime/scope

Files

- creating file objects
- reading and writing files
- handling numbers

Lists

- creating, accessing, processing
- common, useful methods

Dictionaries

- creating, accessing, processing
- common, useful methods

Object-Oriented Programming

- using an API (calling constructor, methods)
- defining classes, instance variables, methods
- using classes you've defined

Documentation

- appropriate comments for functions
- doc strings

What I expect from you on exam:

- To know the Python/programming terminology
- To know the appropriate Linux commands and how to use them, given a typical situation from lab
- To be able to read a program and describe what the program is doing at a high level in plain English, trace through the program's execution given input (control flow), and say what the program outputs
- To be able to write a program (given an algorithm or creating your own algorithm, given a problem) or class
 - o Syntax must be very close to correct (correct keywords, indentation, special characters, variable naming, operations)
 - o Since it's on paper, there is some leniency—may mark it up somehow if, for example, something should be indented

Suggestions on how to prepare:

- Practice programming on paper and verify program in Python. (Use problems from class, labs, or book.)
- Practice reading through programs, tracing through them, and saying what the output should be
- Read through slides for vocabulary and non-problem-solving exercises