

CS181, Programming Languages

Assignment 1

For both problems send only the source files (.py) to **marioh@cs.ucr.edu**. Remember to include your name as a docstring, in the beginning of each file!

Problem one:

Make a program that works like the *cat* command in Unix. It should take an arbitrary number of file names as command line arguments and print their contents at the standard output stream, in sequence.

Problem two: Build a general probing Hashtable class. It should implement the following methods:

- Object put(String key, Object value)
- Object get(String key)
- Object remove(String key)
- clear().

The key is always a string. As a hash function you may use the XOR of all ASCII characters contained in the key. A simple way to implement the hash table is as an array of lists. You may assume that the hash table has a fixed size and returns an error message when full.

Problem three:

Make a simple telephone directory manipulation program. The program should be able to read a directory from a file, make insertions and deletions, search for a given name and write the updated information back to the file. Make a menu for selecting the appropriate command. Assume that there are not too many entries in the directory and thus the whole directory may be loaded into memory.