| AP Computer Science |
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| United States Lab   |

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Read through Chapter 12 in your texbook to refresh / learn a few things about the List Interface, and the ArrayList class (sections 12.4 - 12.8).

Write a menu-driven program called UnitedStates that maintains a list of the states in alphabetical order using Java's List interface. Implement the List interface using the ArrayList class, and the For\_Each loop. First of all, create a text file containing a few names of states. Your program should get the names from the file, inserting them in the list so that alphabetical order is maintained.

Then your program should loop around a menu providing these options:

- displayList: Print out the list, one state per line
- insertItem: Add the name of a state in the correct place.
- removeItem: Prompt for a state to be removed.
- saveList: Output the list, overwriting the existing file.
- quit: End the program, over-writing your current list.

Make sure your program works with an empty text-file, adding to the following list positions: first, interim, and last nodes of non-empty lists.

Do not allow duplicate names into your ordered list, though they may be entered for adding. Also verify that one can ask to remove an item that is not in the list.