

Using and Improving GladLibs

Summary

Creative Story Telling

- Created GladLib.java for creative stories
 - Motivated ArrayList as growable alternative to arrays
 - Motivated HashMap as more efficient structure than two ArrayLists
 - Examined class design concepts for developing extensible programs

ArrayList

- Indexable collection of elements
 - Stores objects, not primitives, so Integer not int
 - Two step process to update Integer values
- Accessible via `import java.util.ArrayList`
- Methods: **`add()`**, **`size()`**, **`get()`**, **`set()`**, **`indexOf()`**
- Examine elements with `iterable` or looping over valid indexes

HashMap

- Collection of (key,value) pairs, with keys mapping to values
 - Both are objects, so Integer rather than int
 - Key best as immutable type, like String or Integer
 - Value can be anything, ArrayList, String, Integer
- Accessible via `import java.util.HashMap`
- Methods: **`put()`**, **`size()`**, **`get()`**, **`keySet()`**, **`containsKey()`**
- Examine elements with iterable over keyset, cannot access via index