

# Review

- Review Project 2 Solution
- Review for Exam 2

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- Project 2 was due just before class today

# Review for Exam 2

- Practice exam with solutions is on-line

# Review for Exam 2

`String (String str)`  
Constructor: creates a new string object with the same characters as `str`.

`char charAt (int index)`  
Returns the character at the specified `index`.

`int compareTo (String str)`  
Returns an integer indicating if this string is lexically before (a negative return value), equal to (a zero return value), or lexically after (a positive return value), the string `str`.

`String concat (String str)`  
Returns a new string consisting of this string concatenated with `str`.

`boolean equals (String str)`  
Returns true if this string contains the same characters as `str` (including case) and false otherwise.

`boolean equalsIgnoreCase (String str)`  
Returns true if this string contains the same characters as `str` (without regard to case) and false otherwise.

`int length ()`  
Returns the number of characters in this string.

`String replace (char oldChar, char newChar)`  
Returns a new string that is identical with this string except that every occurrence of `oldChar` is replaced by `newChar`.

`String substring (int offset, int endIndex)`  
Returns a new string that is a subset of this string starting at index `offset` and extending through `endIndex-1`.

`String toLowerCase ()`  
Returns a new string identical to this string except all uppercase letters are converted to their lowercase equivalent.

`String toUpperCase ()`  
Returns a new string identical to this string except all lowercase letters are converted to their uppercase equivalent.

FIGURE 3.1 Some methods of the String class

# Review for Exam 2

`ArrayList<E>()`

Constructor: creates an initially empty list.

`boolean add (E obj)`

Inserts the specified object to the end of this list.

`void add (int index, E obj)`

Inserts the specified object into this list at the specified index.

`void clear()`

Removes all elements from this list.

`E remove (int index)`

Removes the element at the specified index in this list and returns it.

`E get (int index)`

Returns the object at the specified index in this list without removing it.

`int indexOf (Object obj)`

Returns the index of the first occurrence of the specified object.

`boolean contains (Object obj)`

Returns true if this list contains the specified object.

`boolean isEmpty()`

Returns true if this list contains no elements.

`int size()`

Returns the number of elements in this list.

**FIGURE 5.8** Some methods of the `ArrayList<E>` class.

Note: E is the data type / class name being contained, e.g. String