

# Section Review

Learn to Code with Ruby

# Single Quotes vs. Double Quotes

- **Double quoted strings** allow for interpolation and escape characters.
- **Single quoted strings** allow for literal/raw strings (no escape characters).

# String Concatenation

- The **+** **symbol** (concatenation operator) joins two strings together in a new string.
- The **concat** method mutates an existing string by concatenating a value to its end.
- The **prepend** method mutates an existing string by concatenating a value to its beginning.
- The **<<** **symbol** (shovel operator) mutates a string by concatenating a value to its end.

# Index Positions

- Ruby assigns each string character an **index position**, a numeric order in line.
- The index starts at 0. The final index position is one less than the string's length.
- Extract a single character from a string with **[index]** syntax.
- Extract multiple characters from a string with **[index, amount]** syntax.
- The **slice** method operates the same way as the square bracket syntax.

# Overwriting Characters

- Once we've identified one or more index positions, we can overwrite that segment using an equal sign.
- The **insert** method adds one or more characters at a specified index position without deleting its current character.

# String Methods

- The **length** and **size** methods return the number of characters in the string.
- The **empty?** method checks if the string is empty.
- The **nil?** method checks if an object is **nil**.
- The **include?** method checks if a string contains a substring.
- The **reverse** method "reverses"/rotates the string.

# String Casing Methods

- The **upcase** method returns a new string with all uppercase characters.
- The **downcase** method returns a new string with all lowercase characters.
- The **capitalize** method returns a new string with the first letter capitalized. Ruby lowercases all other characters.
- The **swapcase** method inverts casing for all characters. Uppercase letters become lowercase and lowercase letters become uppercase.

# Bang Methods

- A **bang method** is one that mutates/modifies the original object.
- Bang methods end with a **!**. It is a Ruby community convention, much like **?** for a predicate method.
- Many of the methods we learned have bang method equivalents: **upcase!**, **downcase!**, **reverse!**, **capitalize!**