Quiz 17: String manipulation SOLUTIONS

CSCI 110 Section 1

Wednesday, October 5, 2016

1) Write a function named bracket() that takes a String and returns the String enclosed in angle brackets. For instance, if "h1" is passed in as a parameter, your function should return "<h1>". [20 points]

What should the return type be? String
What should the parameters be? one String

```
String bracket(String input) {
    return "<" + input + ">";
}
```

2) Write a function named capitalize() that properly capitalizes a String. For instance, if "pARiS" is passed in as a parameter, your function should return "Paris". If "beatrice" is passed in, your function should return "Beatrice". [40 points]

What should the return type be? String
What should the parameters be? one String

This solution doesn't do any error checking (i.e. making sure the String has at least one character)

```
String capitalize(String input) {
    return input.substring(0, 1).toUpperCase()
         + input.substring(1, input.length()).toLowerCase();
}
```

3) Write a function named containsBoth() that takes three Strings, and returns true if the first contains both the second and the third Strings. [40 points]

What should the return type be? boolean
What should the parameters be? three Strings

```
boolean containsBoth(String first, String second, String third) {
    return first.contains(second) && first.contains(third);
}
```

4) Write a function extractTag() that takes a String and extracts the HTML tag. It should work for both opening and closing tags. For instance, if "<script>" is passed in as a parameter your function should return "script". If "</strong>" is passed in as a parameter your function should return "strong". [extra credit, 30 points]

What should the return type be? String
What should the parameters be? one String

This solution doesn't do any error checking (i.e. making sure the String has at least one character)

```
String extractTag(String s) {
    if (s.substring(1, 2).equals("/")) {
        return s.substring(2, s.length() - 1);
    }
    return s.substring(1, s.length() - 1);
}
```