StringOperations Documentation

The StringOperations class has methods for performing useful string operations. Documentation for each method is provided below.

public static int findSubString(String str, String sub)

Purpose:
Searches a string for the first occurrence of a substring, and returns the position at which the substring is found.
 Parameters:
str – The string being searched. Must be non-null
sub – The substring being searched for. Must be non-null
Returns:
The zero-based index at which the first occurrence of sub was found within str, or -1 if sub does not appear within str

(See solution on next page)
Solution
Test null values for both str and sub

Empty / Empty
   “”, “”

Empty / Non-Empty
   “”, “a” // “a” is almost empty
   “”, “bob”

Non-Empty / Empty
   “a”, “” // “a” is almost empty
   “bob”, “”

Non-Empty / Non-Empty
   Successful Match
      No Previous Partial Match
         Match At Beginning
            “bobby”, “bob”
         Match In Middle
            “obobo”, “bob”
         Match At End
            “ooobob”, “bob”
      Match At Beginning and End
         “bob”, “bob”
         “a”, “a”

   Previous Partial Match
      All combinations of the following 3 dimensions (some are impossible):
         1. Partial match position (beginning, middle, end)
         2. Match position (beginning, middle, end)
         3. Relationship between partial match and match
            (overlapping, adjacent, neither overlapping nor adjacent)

   Unsuccessful Match
      No Partial Match
         “abcdefg”, “xyz”
      Partial Match
         Partial Match At Beginning
            “box”, “bob”
         Partial Match In Middle
            “aboxz”, “bob”
Partial Match At End
   “hobo”, “bob”
Partial Match At Beginning And End
   “bo”, “bob”