

AP Computer Science A

Unit 1C Programming Project

Use the CodeHS sandbox to design the following program.

String Stuff:

Part I:

In Main, make the following string variables and produce the desired outputs.

- A) Write a line of code to extract the String "Sci" from the String, s0 = "Computer Science Rocks"
- B) Write a line of code to test if the Strings s1 = "happy" and s2 = "Happy" are equal.
- C) Write a line of code to print the position of the first occurrence of the String "ball" in "Take me out to the ball game!"

Part II:

Make a static method to solve each of the following problems. You may use any String method on the "Quick Reference" you wish. Try to emphasize **substring**, **indexOf**, and **length** which are part of the AP subset. Note that **trim()** is a very useful method as well and you are allowed to use that on this assignment.

1) A string dateStr represents a date in the format "mm/dd/yyyy" (e.g. "05/31/2003"). Write a method called **changeFormat()** that changes dateStr to the format "dd-mm-yyyy" (e.g. "31-05-2003") and returns it.

2) Write a method called **eliminateDashes()** that eliminates two dashes from a social security number in the format "ddd-dd-dddd" and returns a 9 character string of digits.

e.g. removeDashes("987-65-4321") returns "987654321"

3) Write a method called scroll() which moves the first character of a given string to the end of the string and returns the new string.

4) Write a method called extract() which will extract the middle third of the characters of three given Strings and return the combination of the extraction as a String.

Example: input "Adams", "Good", and "Bye" will return "damooy"

Example: input "1234567", "abcdefgh", and "ABCDEFGH" will return "345cdefDEF"

5) Suppose a string holds a person's first and last name, separated by one or several spaces. Assume the string does not have leading spaces and that the first name does not contain spaces. Write a method convertName() that takes a string with these properties and returns a string where the last name is placed first, followed by a comma, then one space, and the first name. For example:

```
String s1 = convertName("Grace Hopper ");
```

```
//s1 is set to "Hopper, Grace"
```

```
String s2 = convertName("John      von Neumann ")
```

```
//s2 is set to "von Neumann, John"
```

HINT: the trim method in String class is very useful.