

Strings Examples

Based on examples by Eric Roberts and Patrick Young.

Checking for palindromes

```
public boolean isPalindrome(String str) {
    for(int i = 0; i < str.length() / 2; i++) {
        if (str.charAt(i) != str.charAt(str.length() - (i + 1))) {
            return false;
        }
    }
    return true;
}
```

Reversing strings and a simpler version of checking for palindromes

```
public String reverseString(String str) {
    String result = "";
    for(int i = 0 ; i < str.length(); i++) {
        result = str.charAt(i) + result;
    }
    return result;
}

public boolean simpleIsPalindrome(String str) {
    return (str.equals(reverseString(str)));
}
```

Counting uppercase characters

```
import acm.program.*;

public class CountUppercase extends ConsoleProgram {

    private int countUppercase(String str) {
        int upperCount = 0;
        for(int i = 0; i < str.length(); i++) {
            char ch = str.charAt(i);
            if (Character.isUpperCase(ch)) {
                upperCount++;
            }
        }
        return upperCount;
    }

    public void run() {
        String str = readLine("Enter String: ");
        println(countUppercase(str) + " upper case letters");
    }
}
```

Replace first occurrence

```
public String replaceFirstOccurrence(String str,
                                     String orig,
                                     String repl) {
    int index = str.indexOf(orig);
    if (index != -1) {
        str = str.substring(0, index)
            + repl
            + str.substring(index + orig.length());
    }
    return str;
}
```