Strings Examples

Based on examples by Eric Roberts and Patrick Young.

Checking for palindromes

```java
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

```java
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

```java
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;
}
```