

Exercise 1: Write a version of the lower function, which converts upper case letters to lower case with a conditional expression (?:) instead of if-else.

Exercise 2: Rewrite the binsearch (binary search function used in class with only one test inside the loop (you will need extra tests outside the loop). This should run more efficiently. How would you test that?

Exercise 3: Write a function expand(s1, s2) that expands shorthand notation like a-z in string s1 into abc...xyz in string s2. Remember, letters can be in both lower and upper case, and you can also have numbers. If you're feeling ambitious, check with nasty examples like a-b-c and a-z0-9, or worse, -a-z, where leading and trailing - signs are treated literally.