

**Topics for the week: more about strings**

- Testing and searching strings - **read 8.3**
- Manipulating strings - **read 8.3**
- Input validation loops - **read 4.6**

## **Class Exercises:**

### **String testing**

#### **➤ Password Validation – testing a string**

A password has to meet following requirements:

- Must be at least eight characters long;
- Must contain at least one uppercase letter;
- Must contain at least one lowercase letter;
- Must contain at least one digit.

Write a program that asks the user for his/her password and returns info whether the password is valid or no.

#### **➤ Digits in a String**

Write a program that asks the user to enter a string.

Program should display whether the string contains digits or no.

If the string contains digits, the program should display:

- The number of digits in the string;
- The sum of digits,
- An integer created from the digits in the string.

## String modification

### ➤ Word Separator

Write a program that accepts as input a sentence in which all of the words are run together but the first character of each word is uppercase.

Program should convert the sentence to a string in which the words are separated by spaces and only the first word starts with an uppercase letter.

For example the string

`"StopAndSmellTheRoses."`

would be converted to

`"Stop and smell the roses."`

## String searching

### ➤ Vowels in a string

Write a program that displays the number of vowels in the string entered by a user.

The string of vowels: 'aeiou'

### ➤ Decimal places

Write a program that prompts a user to enter a number and displays the decimal part of the number and the number of digits following the decimal dot.

Example: if the user enter "-25.148" the program displays .148 and that decimal part has 3 digits.