

Representing Names Lab

1. Write a class **Name** that stores a person's first, middle, and last names and provides the following methods:

- public Name() –default constructor. Set the name to blank
- public Name(String first, String middle, String last)—constructor. The name should be stored in the case given; don't convert to all upper or lower case.
- public String getFirst()—returns the first name
- public String getMiddle()—returns the middle name
- public String getLast()—returns the last name
- public String firstMiddleLast()—returns a string containing the person's full name in order, e.g., "Mary Jane Smith" with spaces.
- public String lastFirstMiddle()—returns a string containing the person's full name with the last name first followed by a comma, e.g., "Smith, Mary Jane".
- public boolean equals(Name otherName)—returns true if this name is the same as otherName. Comparisons should not be case sensitive. (Hint: There is a String method *equalsIgnoreCase* that is just like the String method *equals* except it does not consider case in doing its comparison.)
- public String initials()—returns the person's initials (a 3-character string). The initials should be all in upper case, regardless of what case the name was entered in. (Hint: Instead of using *charAt*, use the *substring* method of String to get a string containing only the first letter—then you can upcase this one-letter string.
- public int length()—returns the total number of characters in the full name, not including spaces.

2. Now write a program **NamesTester** that **prompts for and reads in three names (two of which are the same except for case) from the user** (you'll need first, middle, and last for each), creates a Name object for each, and uses the methods of the Name class to do the following:

- a. For each name, print
 - first-middle-last version
 - last-first-middle version
 - initials
 - length
- b. Tell whether or not the names are the same. (Show one that is and one that isn't)

What to show me

- a. the file **Name**
- b. the file **NamesTester**
- c. the output from running **NamesTester** TWICE