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| **Unit:** Language Basics | **Turn In List:** **1. This document** |
| *“I will understand and use strings appropriately in programming.”* | |

**Title: Title**

**Content Objectives:** Students will familiarize themselves with creating, initializing, splicing and formatting strings.

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| **Starter Activity** |
| Include code for creating and setting a string called fullName to the value of your first and last name.  fullName = "will snow"  print(fullName.capitalize()) |

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| **Assignment:** |
| Students will use the following websites and internet searches to complete the table below:   * **C++ Strings:**[**http://www.tutorialspoint.com/cplusplus/cpp\_constants\_literals.htm (Links to an external site.)**](http://www.tutorialspoint.com/cplusplus/cpp_constants_literals.htm) * **C++ Literals:**[**http://www.tutorialspoint.com/cplusplus/cpp\_constants\_literals.htm (Links to an external site.)**](http://www.tutorialspoint.com/cplusplus/cpp_constants_literals.htm) * **C++ String Methods:**[**http://www.cplusplus.com/reference/string/string/ (Links to an external site.)**](http://www.cplusplus.com/reference/string/string/) * **Java Strings:**[**http://www.tutorialspoint.com/java/java\_strings.htm (Links to an external site.)**](http://www.tutorialspoint.com/java/java_strings.htm) * **Java Literals:**[**http://www.tutorialspoint.com/java/java\_quick\_guide.htm (Links to an external site.)**](http://www.tutorialspoint.com/java/java_quick_guide.htm) * **Python Strings:**[**http://www.tutorialspoint.com/python/python\_strings.htm (Links to an external site.)**](http://www.tutorialspoint.com/python/python_strings.htm)   **C# Strings:**[**https://msdn.microsoft.com/en-us/library/system.string(v=vs.110).aspx (Links to an external site.)**](https://msdn.microsoft.com/en-us/library/system.string(v=vs.110).aspx) |

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| **Include Sample Code Concepts Below (copy and paste lines from editor)** | |
| Code necessary to use the String class in your program | fullName = "will snow" |
| Code necessary to convert fullName to all upper case characters | print(fullName.upper()) |
| Code necessary to convert fullName to all lower case characters | print(fullName.lower()) |
| Code necessary to concatenate your name variable with your age in years. Output would be something like: “FirstName LastName is 17” | firstName = "will"  lastName = "snow"  age = str('14')  print(firstName.capitalize() + ' ' + lastName.capitalize() + ' is ' + age) |
| Syntax for including the forward slash in a string or print statement. | firstName = "will"  lastName = "snow"  age = str('14/')  print(firstName.capitalize() + ' ' + lastName.capitalize() + ' is ' + age) |
| Code necessary to retrieve the length of fullName string (see starter) | firstName = "will"  print(len(firstName)) |
| Research: Code to append a string | firstName = "will"  lastName = "snow"  print(firstName)  firstName += lastName  print(firstName) |
| Research: Code to split or separate a string (substring) into two or more values | firstName = "will"  lastName = "snow"  print(firstName)  firstName += lastName  print(firstName)  firstName.strip(lastName)  print(lastName) |

Psuedocode an English to Pig Latin converter requesting a first and/or last name from user.

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| Welcome message  Input function where the user types what they want to translate  Split that statement into a new function  Use a for loop to target every word  In that loop separate the first letter and add it to ‘ay’ and show the word without the first letter  Return translated text |

You may work in pairs or small groups to code a ***working*** “PigLatin” converter that alters a first and/or last name to traditional Pig Latin. (Python Hint: Unit 3 in CodeAcademy!) (Java Hint: research substring!) (C++ research vector)

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