## Global Rain Logo

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**Date**: 1/25/20

# Summary Report Template

**Directions:** Place your pseudocode, flowchart, and explanation in the following sections. Before you submit your report, remove all bracketed [ ] text.

## Pseudocode

When you are done implementing the Pet class, refer back to the Pet BAG specification document and select either the pet check-in or check-out method. These methods are detailed in the Functionality section of the specification document.

Write pseudocode that lays out a plan for the method you chose, ensuring that you organize each step in a logical manner. Remember, you will not be creating the actual code for the method. You do **not** have to write pseudocode for both methods. Your pseudocode must not exceed one page.

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| CHECK dog or cat  IF dog  IF dog boarding space available  IF pet exists in database  UPDATE information  ELSE  CREATE pet in database. Gather info  ENDIF  ENTER length of stay  IF length of stay > 2 days  ENTER grooming services required y/n  ENDIF  CONFIRM appointment info y/n  IF yes  DECREASE one space from available dog spaces  DISPLAY see you next time!  ELSE  DISPLAY see you next time!  ELSE  DISPLAY no space available  ENDIF  ELSE (cat)  IF cat boarding space available  IF pet exists in database  UPDATE information  ELSE  CREATE pet in database. Gather info  ENDIF  ENTER length of stay  CONFIRM appointment info y/n  IF yes  DECREASE one space from available cat spaces  DISPLAY see you next time!  ELSE  DISPLAY see you next time!  ELSE  DISPLAY no space available  ENDIF  ENDIF |

## Flowchart

Based on the pseudocode you wrote, create a flowchart using a tool of your choice for the method you selected. In your flowchart, be sure to include start and end points and appropriate decision branching, and align the flowchart to the check-in/check-out process. Your flowchart must be confined to one page.

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## OOP Principles Explanation

Briefly explain how you applied object-oriented programming principles in the software development process. Your explanation should be one paragraph, or four to six sentences.

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| When writing the class Pet.java, last week’s Dog.java, and when creating the pseudocode and flowcharts for the needed methods, I implemented a few OOP principles. There are several fields in my classes that are deemed private. This is a form of encapsulation which ensures only the needed resources can access my fields. My Pet class is considered an abstract class. This means in order to implement it, it must be inherited from another class. This allows one to hide a lot of what happens under the hood of the program, not just for security, but for simplicity as well. Since that class must be inherited from, that brings me to the last principle I applied: Inheritance. Inheritance allows me to utilize methods from the parent class or implement new ones over the top of them allowing one to program in an organized and efficient manner. |