## Global Rain Logo

**Developer**: Stephen Johnson

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# 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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| INPUT petType, either dog or cat  SET petType to either dog or cat from input  IF petType is dog THEN  IF dogSpaces less than 30 THEN  INPUT petName  SET petName  IF newPet THEN  INPUT petAge  SET petAge  INPUT petWeight  SET petWeight  ELSE  OUTPUT petAge and petWeight  INPUT “Is information correct?”  IF incorrect THEN  INPUT petAge  SET petAge  INPUT petWeight  SET petWeight  ELSE  CONTINUE with current petAge and petWeight  ENDIF  ENDIF  INPUT lengthOfStay  SET lengthOfStay  IF lengthOfStay greater than or equal to 2 THEN  INPUT “Does owner want pet to be groomed?”  SET grooming to either yes or no from input  ELSE  OUTPUT “Grooming not offered”  ENDIF  ASSIGN pet to space  ELSE  OUTPUT dog spaces full, no room to board  ENDIF  ELSE  IF cat spaces less than 12 THEN  INPUT petName  SET petName  IF newPet THEN  INPUT petAge  SET petAge  ELSE  CONTINUE with current petAge  ENDIF  INPUT lengthOfStay  SET lengthOfStay  ASSIGN cat to space  ELSE  OUTPUT catSpaces full, no room to board  ENDIF  END |

## 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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| A diagram of a flowchart  Description automatically generated |

## 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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| Encapsulation, abstraction, inheritance, and polymorphism are implemented to the development for Pet BAG. The three objects (Pet, Dog, Cat), through encapsulation and abstraction, privately store attributes of a unique class, which can identify the class, however cannot alter. Dog and Cat, or child classes, are acquired from Pet, or parent class. Administering inheritance and polymorphism to broaden the parent class (Pet) to the child class (Dog, Cat), the child classes are made distinct using required logic while using familiar logic of the parent class. Object-oriented programming assists in establishing user to Java interpretation and communication, making coding easier for programmers in app development. |