Section Assignment 9

CS 106-A

Question 1 (Q2 is a programming assignment)

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1. Primitive vs. Objects Let's say a student writes the following line of code in a predicate method (i.e., a method that returns a boolean):

public boolean IsNameQ() {

String name = readLine("Enter name: ");

return (name == "Q");

}

The author of this code thinks that the program will return true if the player’s name is "Q". What’s the problem here? Now consider if the code were written as:

public boolean IsNameQ() {

String name = readLine("Enter name: ");

char ch = name.charAt(0);

return ((ch == 'Q') && (name.length() == 1));

}

How is the code above different with respect to checking for equality with the value "Q"?

**Answers:**

**Part A: The student is evaluating equality incorrectly for type String. He should use name.equals(“Q”).**

**Part B: Because char is a primitive datatype, one is able to check for equality using the equality operator (‘==’).**