**Lab 04**

Danielle Hooven

JavaScript for Programmers – WEBD146

Jeffrey Lam

February 16, 2021

**Lab 04**

**Code:**

// Student Report Object - prints report

*function* studentReport(*studentName*, *gradeLog*) {

*var* name = *studentName*;

*var* gradeList = *gradeLog*;

*var* numberOfGradesLogged = gradeList.length;

    // Calculate total points earned

*var* pointsEarned = *function*() {

*var* sumOfValues = 0;

        for (*var* i = 0; i < numberOfGradesLogged; i++){

        sumOfValues += gradeList[i];

        }

        return sumOfValues;

    }

    // Total points possible

*var* pointsPossible = 100 \* numberOfGradesLogged;

    // Calculate Average

*var* gradeAverage = Math.round(pointsEarned() / numberOfGradesLogged);

    // Assign Letter Grade

    if (gradeAverage > 90) {

*var* letterGrade = "A";

    }

    else if(gradeAverage >= 80 && gradeAverage <= 89){

*var* letterGrade = "B";

    }

    else if(gradeAverage >= 70 && gradeAverage <= 79){

*var* letterGrade = "C";

    }

    else if(gradeAverage >= 60 && gradeAverage <= 69){

*var* letterGrade = "D";

    }

    else {

*var* letterGrade = "F";

    };

    this.printReport = *function*() {

        console.log("\n");

        console.log("Name: " + name);

        console.log("Gradebook Log: " + gradeList);

        console.log("Number of grades recorded: " + numberOfGradesLogged);

        console.log("Total Points Earned: " + pointsEarned());

        console.log("Total Points Possible: " + pointsPossible);

        console.log("Final Grade: " + gradeAverage);

        console.log("Letter Grade: " + letterGrade);

    }

}

*function* randomGradeBook(*numberOfGrades*) {

*var* gradeValues = [];

    for (*var* i = 0; i < *numberOfGrades*; i++){

        // return random number between 60 and 100

        gradeValues[i] = Math.floor(Math.random()\*(100 - 60 + 1)) + 50;

    }

    return gradeValues;

}

*var* student1 = new studentReport('Dani', randomGradeBook(13));

*var* student2 = new studentReport('Josh', randomGradeBook(13));

*var* student3 = new studentReport('Eloise', randomGradeBook(13));

*var* student4 = new studentReport('Hope', randomGradeBook(13));

*var* student5 = new studentReport('Dino', randomGradeBook(13));

student1.printReport();

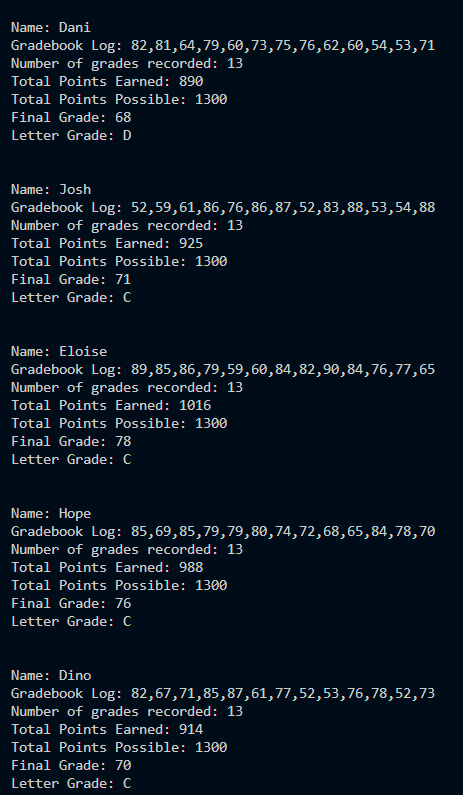
student2.printReport();

student3.printReport();

student4.printReport();

student5.printReport();

**Results:**

****