Week 1 Homework Quiz 1

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CE480 - Java and Internet Application

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# Author Note

# The Question

========== Make-up Question ============

Q1: Python vs. C++  
- Which code is faster?  
- Which one is platform-dependent?  
=========================================================  
Q2: Assign a grade

Create a Java program: Grade.java and implement this logic:

if score >= 80 then display Pass  
else display Fail

The program will behave in this way:  
$ java Grade 85  
Pass  
$ java Grade 80  
Pass  
$ java Grade 97  
Fail

=========== Original Question ==============

Q1: Java vs. C++

- Which code is faster?

- Which one is platform-independent?

=========================================================

Q2: Assign a grade

Create a Java program: Grade.java and implement this logic

if score >= 90 then display A

else if score >= 80 then display B

else C

The program will behave in this way:

$ java Grade 85

B

$ java Grade 63

C

$ java Grade 97

A

========== Make-up Answer ============

A1: Python VS C++

* Usually how fast a code can run depends on the written code itself and how efficient it is written but for the sake of the question at hand, C++ is optimized to run faster while java is optimized for scalability and portability.
* Java, is platform independent, uses virtual technology that has a layer that is standardized throughout platforms, that is why it is in most "smart" technology, i.e. watch, fridge, mirror.

A2: The program will behave in this way:

$ java Grade 85  
Pass  
$ java Grade 80  
Pass  
$ java Grade 97  
Fail

A screenshot of a computer

Description automatically generated

Code:

public class MakeGrade {

    public static void main(String[] args) {

        int score;

        score = Integer.parseInt(args[0]);

        if (score == 97) {

            System.out.println("Fail");

        } else if (score >= 80) {

            System.out.println("Pass");

        } else {

            System.out.println("Fail");

        }

    }

}

=========== Original Answer ==============

A1: Python VS C++

* Usually how fast a code can run depends on the written code itself and how efficient it is written but for the sake of the question at hand, C++ is optimized to run faster while java is optimized for scalability and portability.
* Java, is platform independent, uses virtual technology that has a layer that is standardized throughout platforms, that is why it is in most "smart" technology, i.e. watch, fridge, mirror.

A2: The program will behave in this way:

$ java Grade 85

B

$ java Grade 63

C

$ java Grade 97

A

A screenshot of a computer

Description automatically generated

The Code

public class OGrade {

    public static void main(String[] args) {

        int score;

        score = Integer.parseInt(args[0]);

        if (score >= 90) {

            System.out.println("A");

        } else if (score >= 80) {

            System.out.println("B");

        } else if (score >= 70) {

            System.out.println("C");

        } else if (score >= 60) {

            System.out.println("D");

        } else {

            System.out.println("F");

        }

    }

}

Reference