Department of Career and Technology Teacher Education

EDU2362 SESSION7 ASSIGNMENT LESSON PLAN

Teacher: Stephen Sabaugh Class: 12th Grade Computer Science w/ Java Date: 12/7/20

LESSON TOPIC: Using Java for Object Oriented Programming (abbreviated)

MOTIVATION:
Suppose you and your friends made a video game using a Windows platform, it is wildly successful, and a software company is willing to buy it, but needs you to make the game work on Mac and Linux platforms. It took you and your friends 2 years to build the game, the company rep gives you a month to make the changes. What can you do?

AIM: What makes Java so popular?

INSTRUCTIONAL OBJECTIVES
Students Will Be Able To:

1. Define the concept of "abstraction."
2. Describe the difference between high-level and low-level languages.
3. Explain what the Java Virtual Machine is.
4. Describe the advantages of using Java.

PRESENTATION:
Slide presentation

1) Intro/Motivation
2) Objectives (slide #2)
3) Abstraction (slides #3-5)
4) CPU and RAM (slides #6 & 7)
5) Low-level languages (slides #9-13)
6) High-level languages (slides #14 & 15)
7) "Woman in Programming" historical look (slides #16 -18)
8) Platform independence (slide #19)
9) Java Virtual Machine (JVM) (slide #20 & 21)
10) Java's memory management (slide #22)
11) Safe and secure code (slide #23)
12) Object Oriented Programming (OOP) (slide #24 & 25)
13) Summary (slide #26)

SUMMARY/EVALUATION:

1. What is abstraction?
2. What are some of the differences between high-level and low-level languages?
3. What does the Java Virtual Machine do?
4. What are some of the advantages of using Java?