Use Existing Knowledge to Learn Java

- Using body mass index (BMI)
- Problem Statement
 - Given a weight and height value entered by a user, compute and display the BMI.

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Use Existing Knowledge to Learn Java

Slide 1

Describe Python Program

- Have students write a description of what BMI_1_Main_only.py does.
 - Do in pairs.
 - (Instructor gives no direction about level of detail to include in their description.)
- · Pick a few descriptions and discuss each.
 - Different perspectives?

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Use Existing Knowledge to Learn Java

Compare Python with Java

- · Use
 - BMI_1_Main_only.py
 - BMI_1_Main_only.java
- · Do in pairs
- · Goal
 - Find as many differences as you can between these two programs.

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Use Existing Knowledge to Learn Java

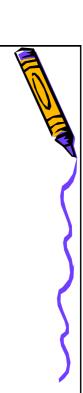
Slide 3

Compare Python with Java

- · while more_differences:
 - Advance to next pair
 - Have this pair identify one difference
- Any differences not identified?
- · Briefly describe Java code
 - Use appropriate terminology

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Use Existing Knowledge to Learn Java



Describe Python Program

- Have students write a description of what BMI_2_Functions.py does.
 - Do in pairs.
 - (Instructor gives no direction about level of detail to include in their description.)
- · Pick a few descriptions and discuss each.
 - Different perspectives?

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Use Existing Knowledge to Learn Java

Slide 5

Compare Python with Java

- · Have students compare:
 - BMI_2_Functions.py
 - BMI_2_Functions.java
- Do in pairs
- · Goal
 - Find as many differences as you can between these two programs.

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Use Existing Knowledge to Learn Java

Compare Python with Java

- · while more differences:
 - Advance to next pair
 - Have this pair identify one difference
- · Any differences not identified?
- · Briefly describe Java code
 - Use appropriate terminology

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Use Existing Knowledge to Learn Java

Compare Java with Java

- Introduce jGRASP
- · Differences between?
 - BMI_2_Functions.java
 - BMI_2_Functions_Alt1.java
 - Which is better? Why?
- · Differences between?
 - BMI_2_Functions.java
 - BMI_2_Functions_Alt2.java
 - Which is better? Why?

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Use Existing Knowledge to Learn Java



Textbook

- Covered most of chapter 2 (Java basics)
- Covered most of chapter 3 (selection)
- Covered 4.2 (common math functions)
- · Covered 5.2 (while)
- Covered 6.2 (defining a method)
- Covered 6.3 (calling a method)
- Covered 6.5 (passing arguments)
- Covered 9.6 (using classes from Java API)
- · Covered 12.1 & 12.2 (exception handling)

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