SKIP THIS LAB
MOVE ON TO LAB 29

Java
Mr. Poole

Character Level Up

Java
Mr. Poole

First off: there’s a lot to this lab.
Take it one step at a time.

Overall Goal : Follow the steps after this.

1. Create a new method called “levelUp”
    a. levelUp is similar to lab 15 where you spend points in your given skills.
    b. If you level up to level 1, you start with 25 points (like lab 15).
        i. If you level up past level 1, you gain another 10 points.
    c. levelUp should ask the user to input the following
        i. Strength points
        ii. Dexterity points
        iii. Intelligence points
        iv. Constitution points
        v. Charisma points
    d. The input won’t stop asking unless it gets a valid input.
        i. (not negative, not above 10, not past how many points you have)
    e. levelUp only does one pass so users can’t spend over 10 points in a category.
    f. Uses, setStrength, setDexterity, setIntelligence, setConstitution, setCharisma.

Step 1: **Remove** public from all global variables

1. This means the following variables:
    i. Role
    ii. Strength
    iii. Dexterity
    iv. Intelligence
    v. Constitution
    vi. Charisma

The reason for this is that we only want the “myCharacter” class to have the ability to access these variables. Nothing outside should be able to access these.

Step 2: Make the following “**private**” instead of “public”

1. The methods below
   a. setStrength()
   b. setDexterity()
   c. setIntelligence()
   d. setConsitution()
   e. setCharisma()
2. NOT setRole()

The reason for this is that we only want the “myCharacter” class to have the ability to access these methods. Nothing outside should be able to access these.

Step 2: Create two **new global variables**

1. Create `int level` and `int points`
    a. Level is what level the player is (starts at 0)
    b. Points is how many total skill points you can spend
2. These should not have public
3. In the constructor, give these variables default values of 0.

Step 3: Create a new method called “checkPoints()”

1. Check points has **an integer** as a **parameter**
2. Check points **returns a boolean**
3. Check points checks
    a. if the input is greater than 10 or less than 0.
        i. Returns false
    b. if the input is greater than **points**
        i. Returns false
    c. Otherwise
        i. Returns true

Step 4: Create the “levelUp()” method

1. Create a **Scanner**
2. Check what **level** the user is
   a. If 0, level them up by 1
      i. Give 25 **points** to the user
   b. If > 0, level them up by 1
      i. Give 10 **points** to the user
   c. Hint, remember they still may have points from previous, don’t override previous points

Step 5: Start spending points

1. **Spend points** in the following categories (1 pass only)
    a. Strength, Dexterity, Intelligence, Constitution, Charisma
2. Use **checkPoints()** to see if the **input values is valid**
    a. Ask for a new input until it’s valid
3. Use **set methods** to set the characters skills
    a. Ex: setStrength()
4. Subtract valid **input** from **points**.

Step 6: Ending Conditions

1. You’ve finished the entire pass
    a. Level up complete, tell the user how many points they have for next time.
    b. Use **myToString()** to print out everything
2. Total **points** reaches 0
    a. End immediately, tell the user they spent all points
    b. Use **myToString()** to print out everything

Step 7: Create a myCharacter

1. Get a role from the user
2. Create a myCharacter in your starter.java
    a. Give it that input role
3. levelUp the myCharacter above to level 2.
    a. Spend points.

That should be it!

Good luck adventurer!