

Intro to CS – For Loops

Using the heBuilder or sheBuilder (or any of the other persons with enough detail in the Alice Gallery), build a person and add him or her to your world. Using your person, build an aerobic exercise video in which the person leads the user through an exercise routine. Use world- and/or class-level methods in your program, as appropriate.

***** taken from Alice in Action with Java by Joel Adams

Problem # 4.8	Possible Points
File Saved Correctly as Alice4_8Lastname.a2w and uploaded to your Google site.	2
Use the character from the Hebuilder/SheBuilder section.	3
World.playIntro() method has been created and has the person using the say dialog introduce themselves and the exercises.	5
World.playExercise() method has been created and calls the methods Person.touchToesRightHand() Person.touchToesLeftHand() Person.jumpJacks() and three other exercising methods of your choice that has the person do and explain an exercise	5
Person.touchToesRightHand() method has the person touching their toes with explanations to the user.	10
Person.touchToesLeftHand() method has the person touching their toes with explanations to the user.	10
Person.jumpJacks() method has the person doing a jumping jack	10
Three other object level methods have been created that has the person doing an exercise and explaining the motions to the user.	30
A global variable has been created called reps which is type number and has an initial value of zero. Within playIntro() ask the user how many reps the character should do and store the value in reps. Repeat the number back to the user.	5
For each exercise - Do the exercise that amount of times (FOR LOOP) and keep count of the number of exercises done using the say method and the <i>index</i> variable. The exercise must look as realistic as possible.	60
World.playGoodbye() method has been created and has the person tell the user good job, you are finished.	5
yourNameCredits.playCredits() method has been created that has a black screen with your name scrolling upwards	5
World.myFirstMethod() has the fewest lines possible calling only World.playIntro() World.playExercise() World.playGoodbye() YourName.playCredits()	5
Total Points	155

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Code for global world.reps variable

```
doInOrder {  
  dan.hello ( );  
  dan .say( Hello! Welcome to my exercise video! ); more...  
  dan .setPose( dan.StartPose ); duration = 0.5 seconds ; more...  
  world.reps .set( value , NumberDialog( question = How many reps of each exercise do you want me to do? ) more... ); more...  
  world.playExercise ( );  
}
```

Code for looped exercise:

```
world.my first method | world.playIntro | world.playExercise | dan.touchToesRightHand  
public void touchToesRightHand ( ) {  
  
  doInOrder {  
    dan .say( Watch me touch my right hand to my left toes ); more...  
    for (int index = 1 ; index < ( world.reps + 1 ) ; index += 1 ) { show simple version  
      dan.UpperBody.Chest .turn( FORWARD , 0.25 revolutions ); more...  
      dan.UpperBody.Chest .turn( LEFT , .28 revolutions ); more...  
      dan.UpperBody.Chest .turn( RIGHT , .28 revolutions ); more...  
      dan.UpperBody.Chest .turn( BACKWARD , 0.25 revolutions ); more...  
      dan .say( index .toString() ); more...  
    }  
  }  
}
```