Fitness Plus Code Review

Thomas, Tien, Justin
CMPE/SE 131

Overview of Fitness Plus

- Application built for beginners and veteran gym users
- Custom workouts for each user, based on his or her performance and preferences
- 6 major muscle groups for the user to choose from
- User’s performance will be portrayed with a scatter plot

Use Case Overview

- Purpose
  - Allowing the user to update his or her goals
- Function
  - Updating the user's performance information for a specific body part
    - The user clicks on "the updating performance" link, which will prompt him or her to fill out a few questions
      - Did you hit your goals?
      - Do you feel stronger?
      - Have you been sleeping well?
    - The user's inputs to the questionnaire will be yes or no
    - The program takes the yes or no as 1 or 0, respectively
    - The program uses an algorithm to update the user's goal
      - There will be an increase or decrease in the amount of weight the user should be lifting after the algorithm finishes processing the information

Reading Guide for Use Case Code

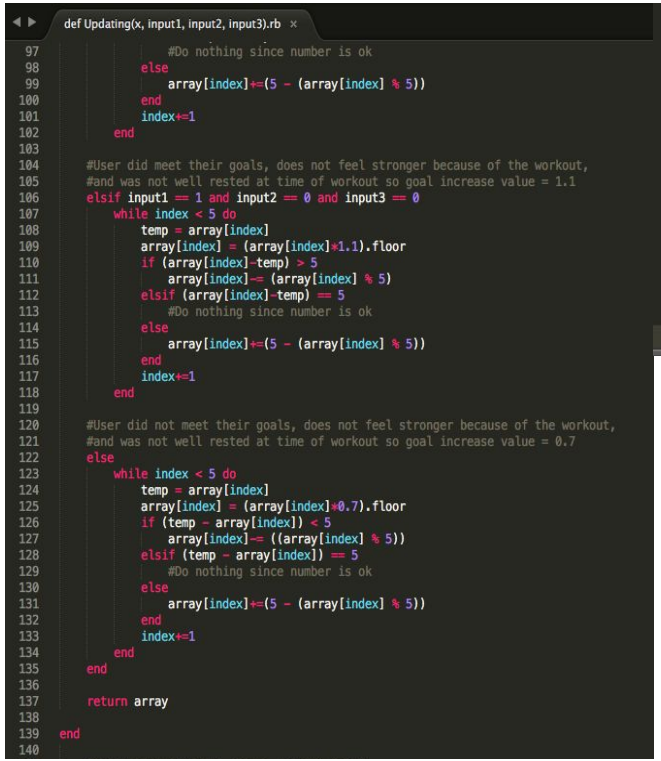
- Goal Increase Percentage > 100%
  - Increase the amount of weight by 5 or more pounds
- Goal Increase Percentage < 100%
  - Decrease the amount of weight by 5 or more pounds
- While loop
  - Traverses through each element in the array, increasing or decreasing each value
- Outer If-else statements
  - Uses the input values to determine goal change factor
- Nested If-else statements
  - Determines the specific number, which is a multiple of 5, to round to.

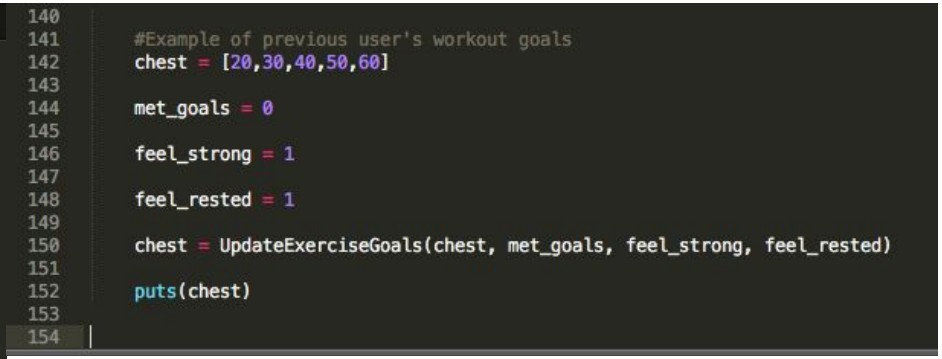
Code

def Updating(x, input1, input2, input3).rb

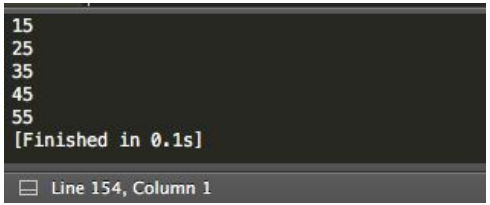
```ruby
#Update the user's workout goals based on their most recent workout results
#Input parameters: array of weights for 1 of the 6 body types, Q#1 Ans, Q#2 Ans, Q#3 Ans
#Returns array with updated weight goals
def UpdateExerciseGoals(array, input1, input2, input3)

    index = 0

    #User met their goals, feels stronger because of the workout,
    #and was well rested at time of workout so goal increase value = 1.1
    if input1 == 1 and input2 == 1 and input3 == 1
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*1.1).floor
            if (array[index]-temp) > 5
                array[index]-= (array[index] % 5)
            elsif (array[index]-temp) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User met their goals, feels stronger because of the workout,
    #but was not well rested at time of workout so goal increase value = 1.05
    elsif input1 == 1 and input2 == 1 and input3 == 0
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*1.05).floor
            if (array[index]-temp) > 5
                array[index]-= (array[index] % 5)
            elsif (array[index]-temp) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User met their goals, does not feel stronger because of the workout,
    #and was well rested at time of workout so goal increase value = 1.2
    elsif input1 == 1 and input2 == 0 and input3 == 1
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*1.2).floor
            if (array[index]-temp) > 5
                array[index]-= (array[index] % 5)
            elsif (array[index]-temp) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User met their goals, does not feel stronger because of the workout,
    #but was not well rested at time of workout so goal increase value = 1.15
    elsif input1 == 1 and input2 == 0 and input3 == 0
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*1.15).floor
            if (array[index]-temp) > 5
                array[index]-= (array[index] % 5)
            elsif (array[index]-temp) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User did not meet their goals, feels stronger because of the workout,
    #and was well rested at time of workout so goal increase value = 0.85
    elsif input1 == 0 and input2 == 1 and input3 == 1
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*0.85).floor
            if (temp - array[index]) < 5
                array[index]-= ((array[index] % 5))
            elsif (temp - array[index]) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User did not meet their goals, does not feel stronger because of the workout,
    #and was well rested at time of workout so goal increase value = 0.8
    elsif input1 == 0 and input2 == 0 and input3 == 1
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*0.80).floor
            if (temp - array[index]) < 5
                array[index]-= ((array[index] % 5))
            elsif (temp - array[index]) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User did not meet their goals, feels stronger because of the workout,
    #but was not well rested at time of workout so goal increase value = 0.9
    elsif input1 == 0 and input2 == 1 and input3 == 0
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*0.9).floor
            if (temp - array[index]) < 5
                array[index]-= ((array[index] % 5))
            elsif (temp - array[index]) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    #User did not meet their goals, does not feel stronger because of the workout,
    #but was not well rested at time of workout so goal increase value = 0.75
    elsif input1 == 0 and input2 == 0 and input3 == 0
        while index < 5 do
            temp = array[index]
            array[index] = (array[index]*0.75).floor
            if (temp - array[index]) < 5
                array[index]-= ((array[index] % 5))
            elsif (temp - array[index]) == 5
                #Do nothing since number is ok
            else
                array[index]+=(5 - (array[index] % 5))
            end
            index+=1
        end

    end

    return array
end
```

Code


def Updating(x, input1, input2, input3).rb
#Do nothing since number is ok
else
array[index]+=(5 - (array[index] % 5))
end
index+=1
end
#User did meet their goals, does not feel stronger because of the workout,
#and was not well rested at time of workout so goal increase value = 1.1
elsif input1 == 1 and input2 == 0 and input3 == 0
while index < 5 do
temp = array[index]
array[index] = (array[index]*1.1).floor
if (array[index]-temp) > 5
array[index]-= (array[index] % 5)
elsif (array[index]-temp) == 5
#Do nothing since number is ok
else
array[index]+=(5 - (array[index] % 5))
end
index+=1
end
#User did not meet their goals, does not feel stronger because of the workout,
#and was not well rested at time of workout so goal increase value = 0.7
else
while index < 5 do
temp = array[index]
array[index] = (array[index]*0.7).floor
if (temp - array[index]) < 5
array[index]-= ((array[index] % 5))
elsif (temp - array[index]) == 5
#Do nothing since number is ok
else
array[index]+=(5 - (array[index] % 5))
end
index+=1
end
end
return array
end


#Example of previous user's workout goals
chest = [20,30,40,50,60]
met_goals = 0
feel_strong = 1
feel_rested = 1
chest = UpdateExerciseGoals(chest, met_goals, feel_strong, feel_rested)
puts(chest)

Output


15
25
35
45
55
[Finished in 0.1s]
Line 154, Column 1