Day - 14

**Higher - Lower Game Project**

Program developing procedure

**14.1 Building Code**

|  |  |
| --- | --- |
| 1. Breakdown the problem into smaller pieces. 2. In editor comment about the broken parts as TODO list (turn the problem into comments) 3. Start with the easiest 4. Create the skeleton part by part | Then use the following loop |

1. Breakdown the problem
2. Make a to-do list: Start with the easiest -> Pick one task
3. Picked Task: Turn the problem into commets
4. **Write** code - **Run** code - **Fix** code

* Project 14: Guess the Higher/Lower Celebrities twitter follower count. File is three part: main, art, data

|  |  |
| --- | --- |
| Practice version1 : All Random | Practice version2 : B become next A |
| #*import modules & random*  **import** random  **import** hi\_lo\_art  **import** celeb\_data  **import** os  #*My style: Keep code as simple as possible. Don't use too much function for "abstruction"*  **def** **game**():      #*1. Choose randomly two persons data "dictionary" from the "list" of data*      ran\_celeb1 = random**.choice**(celeb\_data**.**data)      ran\_celeb2 = random**.choice**(celeb\_data**.**data)              #*to prevent duplication*  **while** ran\_celeb1["name"] **==** ran\_celeb2["name"]:          ran\_celeb2 = random**.choice**(celeb\_data**.**data)          #*n1 =ran\_celeb1["name"]*          #*n2 = ran\_celeb2["name"]*          #*print(f"celeb1 : {n1}    celeb2 : {n2}")*      name1 =ran\_celeb1["name"]      follower\_count1 = ran\_celeb1["follower\_count"]      description1 = ran\_celeb1["description"]      country1 = ran\_celeb1["country"]      name2 = ran\_celeb2["name"]      follower\_count2 = ran\_celeb2["follower\_count"]      description2 = ran\_celeb2["description"]      country2 = ran\_celeb2["country"]      #*2. Show logos and show celebrety data*              #*Format message from dictionary*  **print**(hi\_lo\_art**.**logo)  **print**(f"Compare A : {name1}, {description1}, from {country1}")  **print**(hi\_lo\_art**.**vs)  **print**(f"Compare B : {name2}, {description2}, from {country2}")      #*3. Ask user to guess untill they get wrong*              #*If right : continue and count score*              #*If wrong : Show score*      ask = **input**(f"Who has more follower? Type 'A' or 'B'")**.lower**()  **print**(ask)  **if** ask **==** "a":  **if** follower\_count1 **>** follower\_count2:  **print**("You are Right")  **return** **True**  **else**:  **print**("Soorrry you are wrong")  **return** **False**  **elif** ask **==** "b":  **if** follower\_count2 **>** follower\_count1:  **print**("You are Right")  **return** **True**  **else**:  **print**("Soorrry you are wrong")  **return** **False**  cnTnu = **True**  score = 0  **while** cnTnu:      cnTnu = **game**()  **if** cnTnu **==** **True**:          score += 1          os**.system**("cls")  **print**(f"Your score is : {score}")  #*python high\_low\_main.py* | #*import modules & random*  **import** random  **import** hi\_lo\_art  **import** celeb\_data  **import** os  #*My style: Keep code as simple as possible. Don't use too much function for "abstraction"*  #*Following declared in glabal-scope for B becomes next A*  ran\_celeb1 = random**.choice**(celeb\_data**.**data)  **def** **game**():  *# "global" declaration must appear first after function declaration*  **global** ran\_celeb1    #*1. Choose randomly 2nd persons data "dictionary" from the "list" of data*    ran\_celeb2 = random**.choice**(celeb\_data**.**data)            #*to prevent duplication*  **while** ran\_celeb1["name"] **==** ran\_celeb2["name"]:      ran\_celeb2 = random**.choice**(celeb\_data**.**data)      #*n1 =ran\_celeb1["name"]*      #*n2 = ran\_celeb2["name"]*      #*print(f"celeb1 : {n1}    celeb2 : {n2}")*    name1 =ran\_celeb1["name"]    follower\_count1 = ran\_celeb1["follower\_count"]    description1 = ran\_celeb1["description"]    country1 = ran\_celeb1["country"]    name2 = ran\_celeb2["name"]    follower\_count2 = ran\_celeb2["follower\_count"]    description2 = ran\_celeb2["description"]    country2 = ran\_celeb2["country"]    #*2. Show logos and show celebrety data*        #*Format message from dictionary*  **print**(hi\_lo\_art**.**logo)  **print**(f"Compare A : {name1}, {description1}, from {country1}")  **print**(hi\_lo\_art**.**vs)  **print**(f"Compare B : {name2}, {description2}, from {country2}")    #*3. Ask user to guess untill they get wrong*        #*If right : continue and count score*        #*If wrong : Show score*    ask = **input**(f"Who has more follower? Type 'A' or 'B'")**.lower**()  **print**(ask)  **if** ask **==** "a":  **if** follower\_count1 **>** follower\_count2:  **print**("You are Right")        #*B becomes next A*        ran\_celeb1 = ran\_celeb2  **return** **True**  **else**:  **print**("Soorrry you are wrong")  **return** **False**  **elif** ask **==** "b":  **if** follower\_count2 **>** follower\_count1:  **print**("You are Right")        #*B becomes next A*        ran\_celeb1 = ran\_celeb2  **return** **True**  **else**:  **print**("Soorrry you are wrong")  **return** **False**  cnTnu = **True**  score = 0  **while** cnTnu:    cnTnu = **game**()  **if** cnTnu **==** **True**:      score += 1      os**.system**("cls")  **print**(f"Your score is : {score}")  #*python high\_low\_main2.py* |

Instructor Version

**from** celeb\_data **import** data

**import** random

**from** hi\_lo\_art **import** logo, vs

**import** os

#*Display art.*

**print**(logo)

score = 0

game\_should\_continue = **True**

#*Format account data into printable format.*

**def** **format\_data**(acuNt):

    """Format account into printable format: name, description and country"""

    name = acuNt["name"]

    description = acuNt["description"]

    country = acuNt["country"]

**return** f"{name}, a {description}, from {country}"

#*compare the data*

**def** **check\_answer**(guess, a\_followers, b\_followers):

    """Checks followers against user's guess

    and returns True if they got it right.

    Or False if they got it wrong."""

    #*if (a\_followers > b\_followers) and (guess == "a"):*

    #*return True*

    #*elif (b\_followers > a\_followers) and (guess == "b"):*

    #*return True*

    #*else:*

    #*return False*

    #*Shorter version is using "conditional return". Indirect "True" or "False"*

**if** a\_followers **>** b\_followers:

**return** guess **==** "a"

**else**:

**return** guess **==** "b"

#*Follwing is just for first step/iteration/startup and for first shuffle*

#*Act as "step -1" and never touched when "while" loop runs*

account\_b = random**.choice**(data)

**while** game\_should\_continue:

    #*Generate a random account from the game data.*

    #*following is the actual shuffle*

        #*first "account\_b" outside of "while" will never executed when this loop continues*

    account\_a = account\_b #*stores previous steps "account\_b"*

    #*Generates new "account\_b" for Current step and will be next "account\_a" in follwing step*

    account\_b = random**.choice**(data)

**while** account\_a **==** account\_b:

        account\_b = random**.choice**(data)

    #*Make B become the next A.*

**print**(f"Compare A : {**format\_data**(account\_a)}")

**print**(vs)

**print**(f"Compare B : {**format\_data**(account\_b)}")

    #*Ask user for a guess.*

    guess = **input**("Who has more followers? Type 'A' or 'B': ")**.lower**()

    #*Check if user is correct.*

        #*# Get follower count.*

        #*# If Statement*

    folllower\_a = account\_a["follower\_count"]

    folllower\_b = account\_b["follower\_count"]

    is\_correct = **check\_answer**(guess, folllower\_a, folllower\_b)

    os**.system**("cls")

**print**(logo)

    #*Give user Feedback on their guess.*

    #*Score Keeping.*

**if** is\_correct:

        score += 1

**print**(f"You're right! Current score: {score}.")

**else**:

**print**(f"Sorry, that's wrong. Final score: {score}")

        game\_should\_continue = **False**

#*Make game repeatable.*

#*Display art.*

#*Clear screen between rounds.*

#*python angela\_hi\_lo.py*