The Fair Price

Version 2.0.0





I. <u>Introduction</u>

Arthur and Sophie are invited to participate in the new show called "The Fair Price" which will be broadcast on TF1 at 19:30. The goal of this show is simple: Find the exact price of a product to win it. But it will not be so easy because our two participants will have to try to guess the price of the product in turn!

Unfortunately, the TV channel organizing this new show forgot to tell the player that it was happening in Paris. Arthur being in Lille and Sophie on Reunion Island, they are unable to come both for tonight's premiere!

Vincent Faigaf does not want to cancel to this premiere. It is therefore entrusted to you with the task of dematerializing the TV set to ensure tonight's show. You have an hour and a half before the start!

II. <u>Instructions</u>

- * For the installation, follow the tutorial "Installing Python and its tools".
- * Read everything before you start!
- * Ask the Cobras for help in case of installation problems. If nothing goes well, start again from the beginning paying attention to all the steps!
- * If you struggle, remember that you are accompanied! Ask your comrades or a Cobra for help, they don't bite.
- ★ The Internet is a great tool to discover how things work, use it regularly!

∆Careful

The code of the examples is incomplete, you will have to add/modify some elements for it to work.

- A ... In code means that you must complete the code by yourself using the information in the subject.
- A # is a comment to help you understand. What is after, on the same line, is ignored by the program.

III. <u>Player Registration</u>

a. Replicas

First, it will be necessary to recreate the TV presenter, the voice-over and the audience. We are lucky because the lines are the same on each show. It would be a shame if Arthur and Sophie couldn't follow the game guided by our favourite presenter!

```
Dialogue = [
"",

"voice-over: Hello and welcome to the Just Award, with Vincent FAIGAF as presenter!",

"Vincent Faigaf: MEEP MEEP",

"The public: OUAIIIIIS!",

"Vincent Faigaf: And we start right away with our first candidates!",

"Our first candidate is:",

"He will face:",

"We're going to start right away with the first product."
```

b. Player creation

You must then enter the names of the players to add them to the dialogue. In the Main() function, we will start by asking for the name of each player and then store them in the playerOne and playerTwo thanks to the input() function.

```
def Main():
   playerOne = ...
   playerTwo = ...
```

c. Two names in the headset

Both candidates are now registered, but our dear Vincent Faigaf does not have their name in his script. It will therefore be necessary to amend the fifth and sixth sentences of Dialogue in our function RegisterPlayer(player1, player2) for Add names to string Existing.

```
def RegisterPlayer(player1, player2):
  Dialogue[...] = ...
  Dialogue[...] = ...
```

IV. Quality Story Telling!

a. A different way to display

Arthur and Sophie take time to read, so you will have to display the <u>text bit by bit</u>. <u>This</u> may help you. The first <u>text</u> parameter will be used to display the dialogues and the second parameter will <u>sleep time</u> will be used to give the time between each message.

```
def CustomPrint(text, sleep_time):
    ...
```

b. It's time to give voice to the program

Here, you will take care of displaying the sentences of the dialogue with 2 seconds of pause time between the display of the messages thanks to the function you have previously created.

```
def StoryTeller():
   CustomPrint(Dialog[0], ...)
...
```

V. A prize to be won

a. Retrieve the price of the lot

The management came to tell us that they already had some products in stock. Here is the list of products in the form of a <u>dictionary in Python</u>.

```
"Screen": {
  "name" : "Ecer Gaming",
  "price" : random.randint(180, 230)
},
"Console" : {
  "name" : "Nantendo Swatch",
  "price" : random.randint(250, 320)
},
"CPU": {
  "name" : "NSA Gaming",
  "price" : random.randint(1000, 1200)
},
"Television": {
  "name" : "Somsing QLED",
  "price" : random.randint(1000, 1500)
},
"Pregnant" : {
  "name" : "JPL PoomPox",
  "price" : random.randint(100, 180)
}
```

}

- b. Choose a lot at random
- * Retrieves a random product using the random() function

```
nb_product = random.choice(list(Products.keys()))
product = Products.get(nb_product)
```

★ Displays the name of the randomly selected product

```
print("You need to find the price of this product:", product.get(...))
```

* Retrieves the price of the randomly selected product

```
price = product.get(...)
```

VI. Game loop

- a. The beginning of the end
- ★ Initializes two variables to retrieve user input
- ★ Creates the game loop: as long as the value entered by both players is different from the price
- * Retrieves the input of the first player and transforms the text value into a numeric integer
- * Leave a line to call the PlayerTurnVerification() function
- * Check if the first player's entry is equal to the price, if so, stop the loop using break and display "Player 1 won!"
- * Retrieves the second player's input and transforms the value into an entire
- * Leaves a line to call the PlayerTurnVerification() function
- ★ Check if the second player's entry is equal to the prize, if so, displays "Player 2 won!"
 - b. The end of the beginning

It's time to finish the last part of the game so the show can begin! It will now be necessary to complete this function:

```
def PlayerTurnVerification(valuePlayer, price, nextPlayerName):
```

Here, it will be necessary to check if the value entered by the player valuePlayer is higher or lower than the price of the product.

★ If the value entered by the player is less than the price, displays:

```
print("It's more! Now it's " + nextPlayerName)
```

* If the value entered by the player is greater than the price, displays:

```
print("It's less! Now it's " + nextPlayerName)
```

To complete the program, fill in the lines left just now by calling this function with the right arguments. Finally, we must call the function Hand() at the end of the program.

VII. <u>Conclusion</u>

Congratulations, you saved the premiere of the Just Award! Arthur and Sophie will finally be able to start playing!

To go further, here are some ideas:

- ★ Display the name of the winning player
- **★** Add a timer to manage each player's playing time
- * Create a product generator
- * Add a more colourful display for display text
- **★** Create a graphical interface for the game with PyGame