Code “The Price is Right” in Python

Beginner Level • 13-16 y/o • 1h30

1. Presentation of the game

The game **The Price is Right** is historically a tv game show where participants try to guess the exact price of various objects. Today, we adapted the rules of the game for this workshop. The goal is to guess a number between 0 and 100, randomly chosen by your computer. We are going to develop this game with Python.

Some elements of **The Price is Right**’s code have been lost… It's up to you to complete the game code to get it working again!

In this exercise, you will learn how to program loops, conditions in **Python**, and a game's overall functioning.

2. Tools & Resources

2.1 Resources

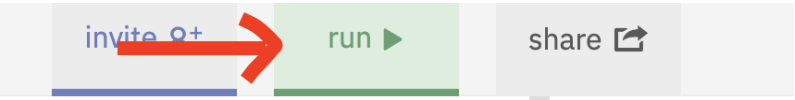
To get started, go to https://repl.it/@EmmaEpitech/PythonJustePrix.

The screen is split into several parts: the file part, on the left: this is where you will code the game. And the rendered part, on the right: this is where you will see your progress and can test your game.

2.2 Getting started with the platform

On the left side of the screen, you can see a list of **Python** files.
Today, you will only need to edit the "**main.py**" file.

To run your code, press the green arrow "**RUN**" at the top of the screen.



3. Discovery of the game

3.1 Initialization of the game

The first step for **this The Price is Right** game is the initialization. During this step, we are going to create two variables and initialize them. We are also going to import a library to generate random numbers.

To import a library, you need to use the **import** keyword, followed by the name of the library. We'll be using the **Random** library today.

```
from random import randint
```

Now, we are going to create a variable **price**, and a second variable **user**. Initialize the **price** variable with a random number, and the **user** variable with a value of **-1**. We use -1 to say that the user hasn't entered any price guess yet.

```
price = randint(0, 100)
user = -1
```

The **randint** function returns a random value based on the specified interval.

3.2 Game loop

Now, we are going to create the game loop. At each turn of the game, we need to ask the user to enter a new value (the price the user thinks about), then check if it's the right price or not.

Add the following lines to create the game loop:

```
while price != user:
```

Then add **inside** the loop, the following line to ask the user to enter a number:

```
user = int(input("Enter a value between 0 and 100: "))
```

3.3 Check the value entered by the user

We are now going to compare the value entered by the user, then inform them if the right number to guess is 1) greater 2) lower 3) equal. If it's equal, that means the user guessed correctly.

Add the following conditions inside the game loop to perform the comparison.

```
if user < price:
   print("It's more!")
elif user > price:
   print("It's less!")
else:
   print("The Price is Right!")
```

*Press **RUN** and try to play!*

Good luck to you!

4. Bonus

If you have finished all the steps above, first of all, **congrats**!

4.1 Setup a limit of how many numbers the user can guess

The goal of this bonus is to limit the number of attempts for the user to 7. If the user guesses the number 7 times wrong, the game is lost.

Firstly, create a new variable at the beginning of the file, just below the user variable initialization.

```
count = 0
```

Secondly, update your loop so if the count variable is greater than 7, the loop stops. You will need to change the loop condition, don't forget to increment your count variable as well!

```
while price != user and count < 7:
   [...]

   count += 1
```

Thirdly and lastly, add a final condition to inform the user whether the game is won or lost. This condition should be outside the scope of the loop.

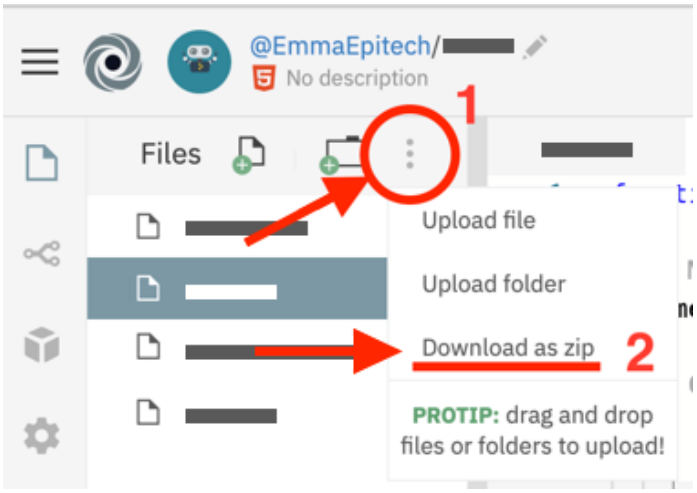
```
if price == user:
   print("You won!")
elif count >= 7:
   print("You lost! :(")
```

*Press **RUN** and try to play!*

Good luck to you!

5. Save your program

You can save your game on your computer to edit or play it later.
To do this, click on **“Download as zip.**”



6. Few useful links

To learn JavaScript :

➔ https://www.w3schools.com/python

To redo the exercise:

➔ https://repl.it/@EmmaEpitech/PythonJustePrix

To see our other exercises:

➔ https://repl.it/@EmmaEpitech

For more information on our activities:

➔ https://www.e-mma.org