

CQ9 - Aventura en Codédex

CHAPTER 1

Codédex Python / Hello World 40%

Exercise 920 also grinding

01. Setting Up

Python

Welcome to the first chapter of The Legend of Python! 🐍

The programming language we are learning is called **Python**, created by a developer named **Guido van Rossum** in the early 90s.

Python is designed to be easy for us to read, which makes it the perfect coding language for beginners.

It's also super versatile and used in the following areas:

Setting Up Exercise 1 / 5 **DONE!**

Back Next

script.py

```
1 # Write code below
2
3 print('Hi')
```

Take screenshot

Terminal

```
Hi
```

+10 XP
You earned XP for this exercise. Keep it up!

You got it!
Press "Next" to continue.

Codédex Python / Hello World 40%

Exercise 915 also vibing

02. Hello World

Print

In Python, the `print()` function is used to tell a computer to "talk." This is something we are going to use a lot.

The message we want to display should be inside the parentheses and surrounded by quotes. They can be double quotes " " or single quotes ' ', but the opening and closing quote marks have to be the same.

This is an example of a `print()` function:

```
print('👋 Howdy')
```

In the example above, we instructed our program to print a message. This

hello_world.py

```
1 # Write code below
2
3 print('👋 Howdy')
```

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Terminal

+10 XP
You earned XP for this exercise. Keep it up!

You got it!
Press "Next" to continue.

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Exercise

03. Pattern

Line by Line

Python is run one line at a time, from top to bottom.

We can output multiple messages by using multiple `print()` functions. For example, if we want to print out two simple greetings:

```
print('☀ Morning Dharma!')
print('🌃 Evening Sonny!')
```

This will output:

```
☀ Morning Dharma!
🌃 Evening Sonny!
```

Now let's use what we just learned to complete a special challenge! 🎉

pattern.py

```
1 # Write code below
2
3 print('    1')
4 print('  2 3')
5 print(' 4 5 6')
6 print('7 8 9 10')
```

Take screenshot

Terminal

```
1
2 3
4 5 6
7 8 9 10
```

+10 XP
You earned XP for this exercise. Keep it up!

You got it!
Press "Next" to continue.

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Exercise

04. Initials

Comments

Comments are very important in programming because they are used to document what our code does. They are also used to disable parts of the program.

When the program is run, the comments are ignored.

In Python, we can create a comment using the `#` hashtag symbol:

```
# Printing out a message
print('Hi')
```

On the first line, we created a comment. As a result, everything to the right of the hashtag `#` is ignored. The program continues to the next line, and the output is simply:

initials.py

```
1 # Write code below
2
3 # Fun fact: My high school band Attica was signed to an indie record
4
5 print(' SSS  L  ')
6 print('S  S  L  ')
7 print('S      ')
8 /print(' SSS  L  ')
9 print('  S  L-  ')
10 print('       S  ')
11 print('       LLLL')
```

Take screenshot

Terminal

```
 SSS  L
S  S  L
S      L
 SSS  L
  S  L
S  S  L
 SSS  LLLL
```

+15 XP
You earned XP for this exercise. Keep it up!

You got it!
Press "Next" to continue.

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Python / Hello World

100%

Exercise

60% also learning

05. Snail Mail

Congrats!

OMG we're so proud of you! (T...T)
print('Congrats! You\'ve made it to the end of chapter o

Here's a refresher on what we went over:

The `print()` function is used to output messages to the terminal.

Python code runs one line at a time, from top to bottom.

Comments are created using the `#` hashtag symbol.

Let's try one more thing together!

Instructions

Create a blank `letter.py` program.

letter.py

1 # Write code below
2
3 ## OMG we're so proud of you! (T...T)
4 print('Congrats! You\'ve made it to the end of chapter one! 🐌')

Take screenshot

Terminal

Congrats! You've made it to the end of chapter one! 🐌

+15 XP

You earned XP for this exercise. Keep it up!

You got it!

Press "Next" to continue.

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Snail Mail

Exercise 5 / 5

DONE!

Sound on

Codédex

Chapter 1 complete!

Woohoo!! Give yourself a big pat on the back and take a breather. Pre-game is over, the real fun stuff is just about to start. (o_~)

60 XP

EARNED IN CHAPTER

60 XP

TOTAL EARNED

Level 1

CURRENT LEVEL

Continue

CHAPTER 2

Codédex

Python / Variables

20%


Exercise

A Z 391 also learning

06. Data Types

Variables

In programming, **variables** are used for storing data values. Each variable has a name and holds a value. Think of it like a box: slap on a label, and it can store stuff.



The variable name can consist of letters, numbers, and the underscore.

These are all valid variable names and values:

script.py

```
1 # Write code below
2
3 name = 'Erich Bachman'
4 user_id = '16180339887'
5 progress = 0.75
6 xp = 60
7 verified = True
```

Take screenshot

Terminal

+15 XP

You earned XP for this exercise. Keep it up!

You got it!

Press "Next" to continue.

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Codédex

Python / Variables

20%

Exercise

A Z 394 also learning

07. Temperature

Operators

Computers are incredible at doing math calculations. Now that we have learned about variables, let's use them with arithmetic operators to calculate things!

Python has the following arithmetic operators:

- + Addition
- Subtraction
- * Multiplication
- / Division

```
score = 0          # score is 0
score = 4 + 3      # score is now 7
score = 4 - 3      # score is now 1
score = 4 * 3      # score is now 12
score = 4 / 3      # score is now 1.3333
```

temperature.py

```
1 # Write code below
2
3 # Temperature
4
5 temp_f = 56
6 temp_c = (temp_f - 32) / 1.8
7
8 print(temp_c)
```

Take screenshot

Terminal

+15 XP

You earned XP for this exercise. Keep it up!

You got it!

Press "Next" to continue.

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Python / Variables

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08. BMI

Modulo

Another operator that often trips people up is the modulo operator.

The % modulo operator doesn't give you the result of a division – it gives you the remainder.

```
score = 5 % 3    # score is 2
score = 5 % 2    # score is now 1
score = 5 % 1    # score is now 0
```

- 5 divided by 3 is 1, with a remainder of 2.
- 5 divided by 2 is 2, with a remainder of 1.
- 5 divided by 1 is 5, with a remainder of 0.

We won't use this right now, but we'll come back to it later in the course.

bmi.py

```
1 # Write code below
2
3 # BMI
4
5 weight = 92.3
6 height = 1.86
7
8 bmi = weight / (height**2)
9
```

Take screenshot

Terminal

+15 XP
You earned XP for this exercise.
Keep it up!

You got it!
Press "Next" to continue.

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Python / Variables

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09. Pythagorean Theorem

User Input

Thus far, we've only been outputting things to the user, making our programs one-sided and not that fun. Almost every popular website, mobile app, or video game nowadays have both input and output.

So how do we get input from the user?

Python uses the `input()` function to get user input:

```
username = input('Enter your name: ')
print(username)
```

The output will say "Enter your name: " and the user can type in something, hit enter, and whatever the user typed gets stored into the `username` variable.

So here, whatever the user typed in their name and pressed enter, it will output

hypotenuse.py

```
1 # Write code below
2
3 # Pythagorean Theorem
4
5 a = int(input("Enter a: "))
6 b = int(input("Enter b: "))
7
8 c = (a**2 + b**2) ** 0.5
9
```

Take screenshot

Terminal

26.679384899988435

+15 XP
You earned XP for this exercise.
Keep it up!

You got it!
Press "Next" to continue.

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Exercise

246 also vibing

10. Currency

Congrats!

Woohoo! You learned variables in Python! 🎉

Here's a recap of everything we learned in this chapter:

- Data types: `int`, `float`, `str`, `bool`.
- Arithmetic operators: `+`, `-`, `*`, `/`.
- The `%` modulo finds the remainder.
- The `**` exponentiation finds the exponent.
- The `input()` function is used to get user input.
- The `int()` function converts a value into an integer number.

Let's put it all together now!

Instructions

We just got home from a fun trip to South America, specifically Colombia, Peru,

currency.py

```
1 # Write code below 🍷
2
3 # Currency 🇨🇴
4
5 pesos = int(input('What do you have left in pesos? '))
6 soles = int(input('What do you have left in soles? '))
7 reais = int(input('What do you have left in reais? '))
8
9 total = pesos * 0.0025 + soles * 0.28 + reais * 0.21
```

Take screenshot



Terminal

What do you have left in pesos? 100

+20 XP
You earned XP for this exercise.
Keep it up!

You got it!
Press "Next" to continue.

Currency
Exercise 5 / 5 **DONE!**

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Sound on

Codédex

Chapter 2 complete!

Congrats! Your next badge proves that you have what it takes. It's special, because you have assigned a value to it. 🐱🐾



80 XP
EARNED IN CHAPTER

140 XP
TOTAL EARNED

Level 2
CURRENT LEVEL

Continue