Hello Python!

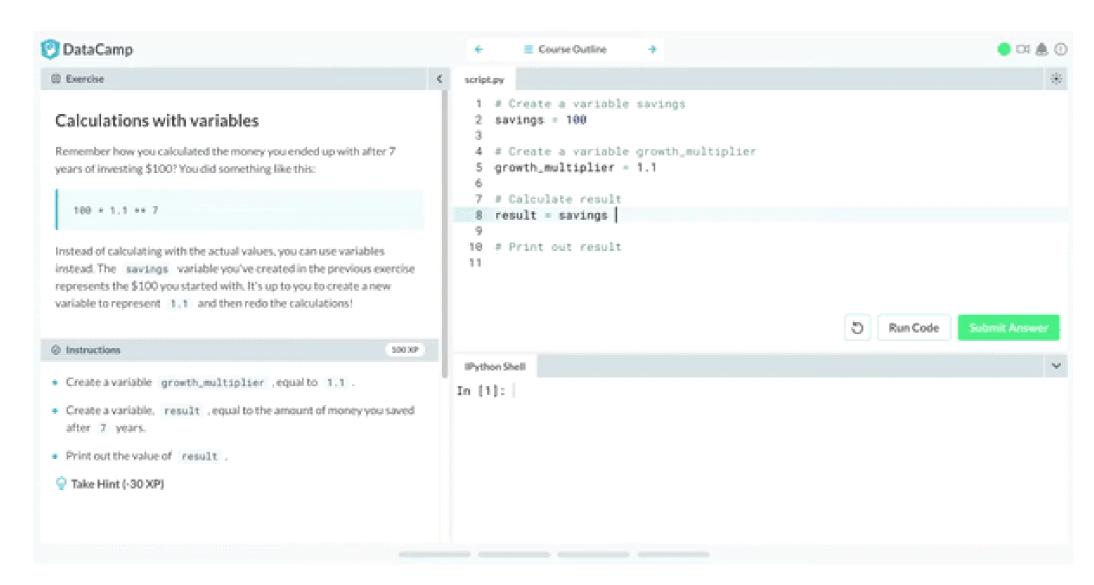
INTRODUCTION TO PYTHON



Hugo Bowne-Anderson
Data Scientist at DataCamp



How you will learn



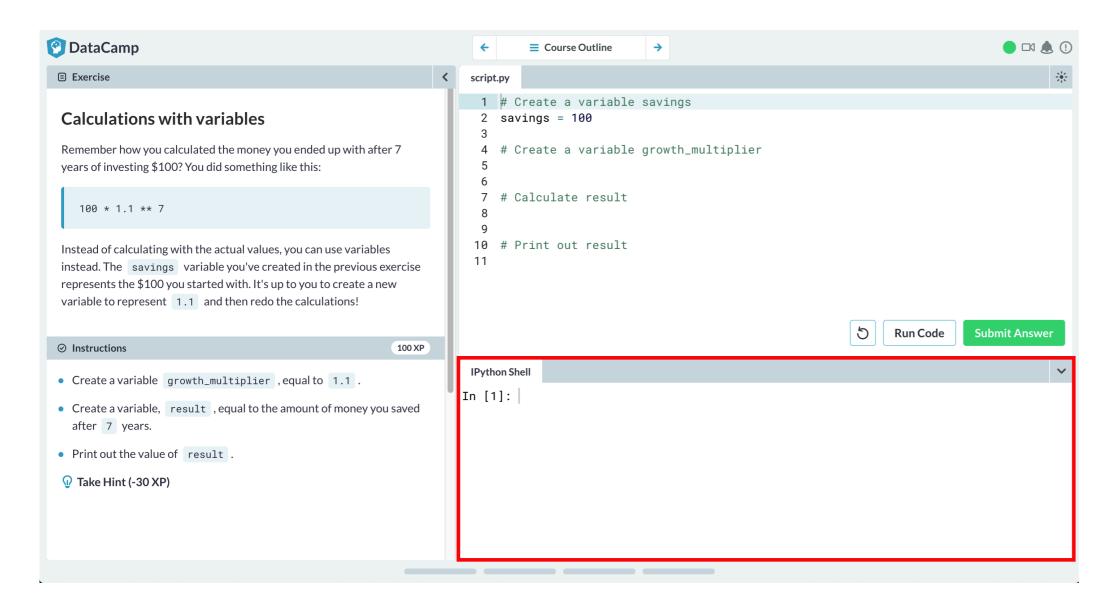
Python



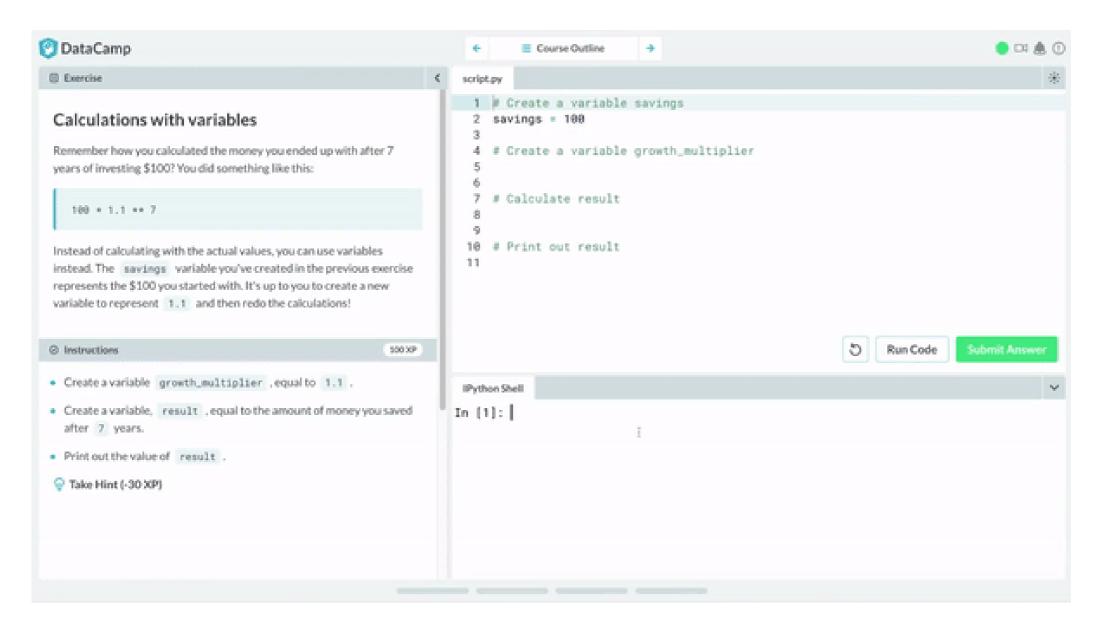
- General purpose: build anything
- Open source! Free!
- Python packages, also for data science
 - Many applications and fields
- Version 3.x https://www.python.org/downloads/

IPython Shell

Execute Python commands

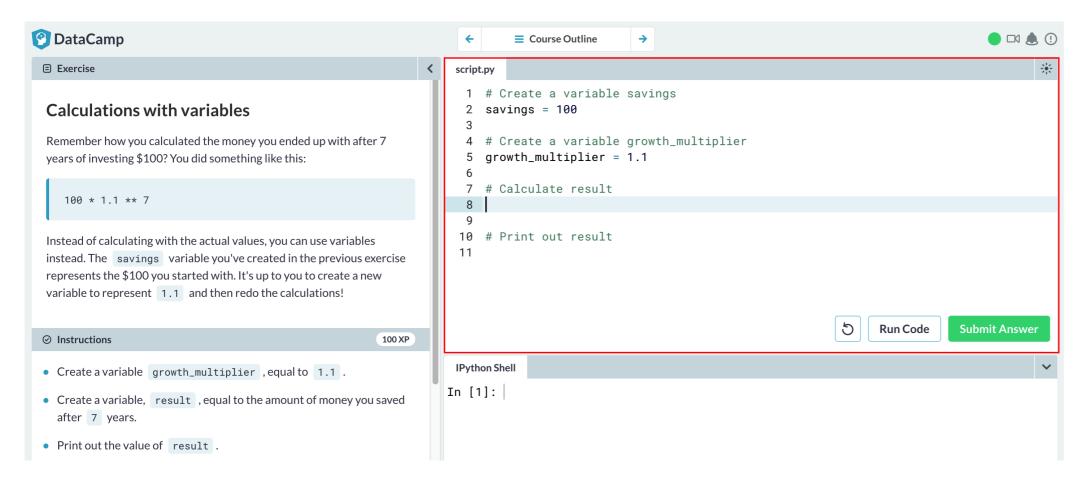


IPython Shell

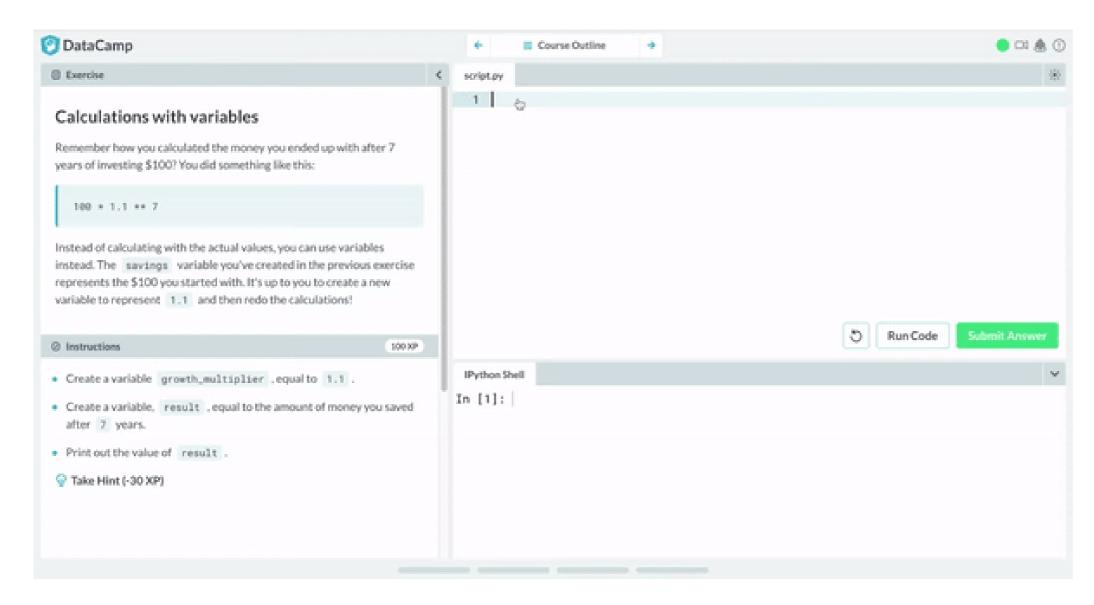


Python Script

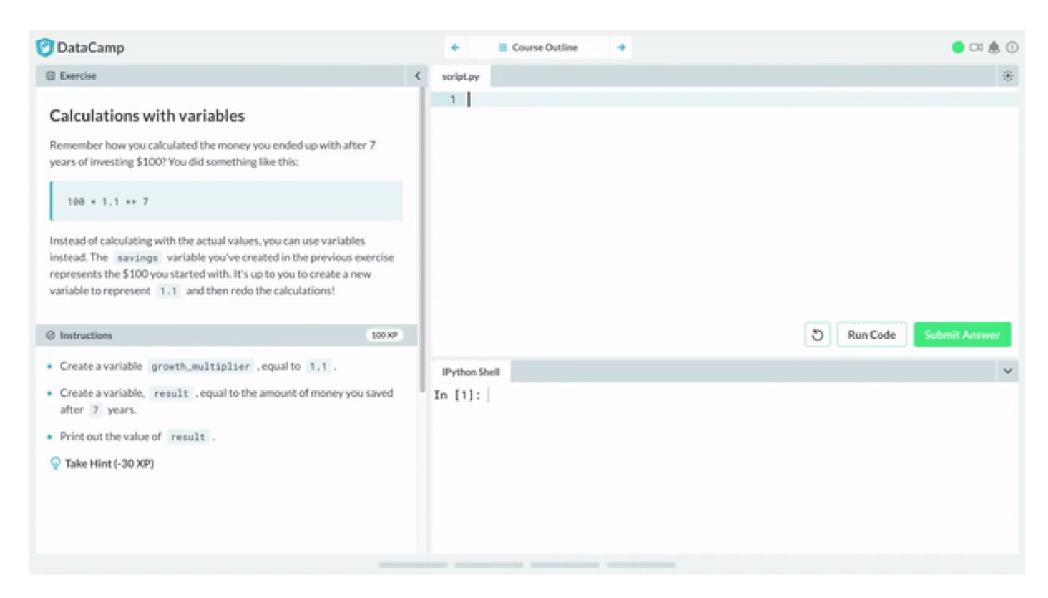
- Text files .py
- List of Python commands
- Similar to typing in IPython Shell



Python Script

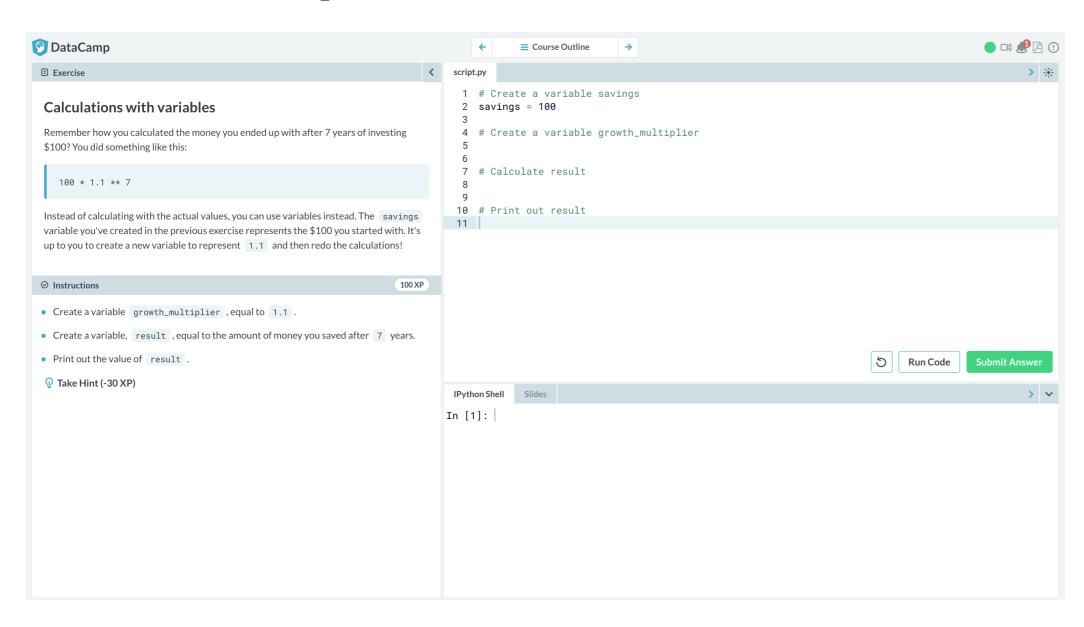


Python Script



• Use print() to generate output from script

DataCamp Interface



Let's practice!

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Variables and Types

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Variable

- Specific, case-sensitive name
- Call up value through variable name
- 1.79 m 68.7 kg

```
height = 1.79
weight = 68.7
height
```

Calculate BMI

```
height = 1.79
weight = 68.7
height
```

1.79

$$BMI = \frac{weight}{height^2}$$

```
68.7 / 1.79 ** 2
```

21.4413

```
weight / height ** 2
```

21.4413

```
bmi = weight / height ** 2
bmi
```

Reproducibility

```
height = 1.79
weight = 68.7
bmi = weight / height ** 2
print(bmi)
```

Reproducibility

```
height = 1.79
weight = 74.2 # <-
bmi = weight / height ** 2
print(bmi)</pre>
```

Python Types

```
type(bmi)
```

float

```
day_of_week = 5
type(day_of_week)
```

int

Python Types (2)

```
x = "body mass index"
y = 'this works too'
type(y)
```

str

```
z = True
type(z)
```

bool

Python Types (3)

```
2 + 3

5

'ab' + 'cd'

'abcd'
```

• Different type = different behavior!

Let's practice!

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