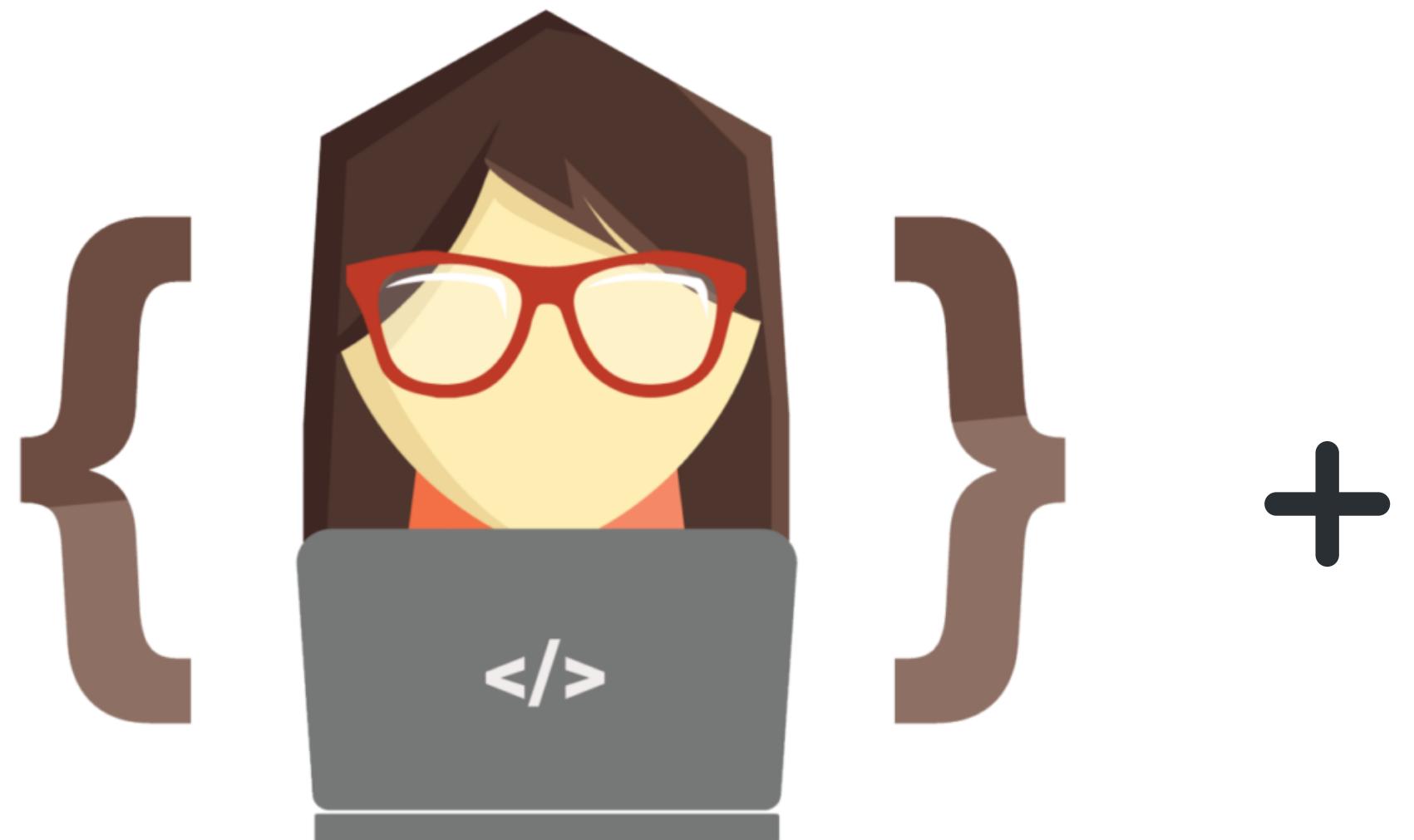
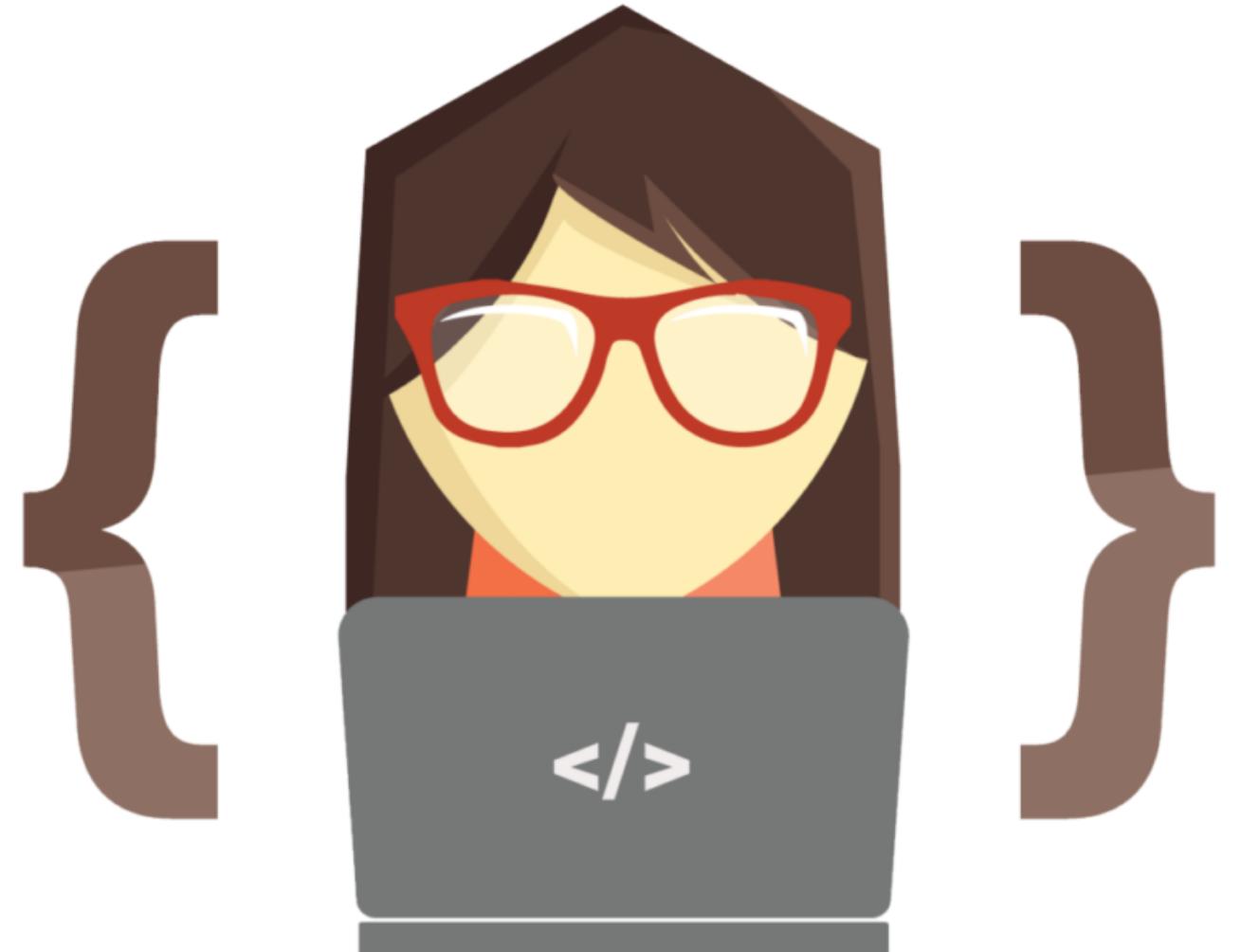


PYTHON 101

BOOTCAMP

Presented by: Priyanka Saggi (Chapter_Lead
@GirlScriptSonipat)





GirlScript Foundation Private limited is a section-8 company registered under Government of India. It was started by **Ms. Anubha Maneshwar** in June 2017 with a vision and mission to help beginners in technology and promote women in Tech. We support diversity in technology. Although, it should be remembered that we are not a women-only community. We welcome folks from all genders to join us, irrespective of caste, color, creed, age, nationality and religion.



GirlScript Sonipat is a non-profit community under GirlScript Foundations, India for students, software developers, IT Professionals, and Entrepreneurs. GirlScript Sonipat Chapter is led by **Priyanka Saggū** (mentor on Freenode IRC Channel #GirlScriptSonipat) and **Sourabh Pruthi**. The organizing team consists of **6 energized individuals**. We believe in being the force that transforms how students learn in India. Our focus is on beginners and learners. And we try to accomplish the core vision by conducting free-of-cost sessions on Freenode server in IRC channel #GirlScriptSnp and physical meetups in classrooms.

LETSPY

LetsPy India Tour 2019 is the one of the biggest Python Boot Camp.

LetsPy

GIRLSCRIPT INDIA SUMMIT

India Summit is an annual gathering

Summit

GIRLSCRIPT SUMMER OF CODE

GSSOC is the 3 months long Open Source program during summers

GSSOC

GROOMSCHOOLS

It is a 45 days Intensive program.

GroomSchool

LOCAL MEET UPS

Every city 2 local meet ups

CODEPRENEUR

Coming Soon....

<http://girlscript.tech>

<http://codepreneur.in/>

<https://groomschools.com/>

<https://www.gssoc.tech/>

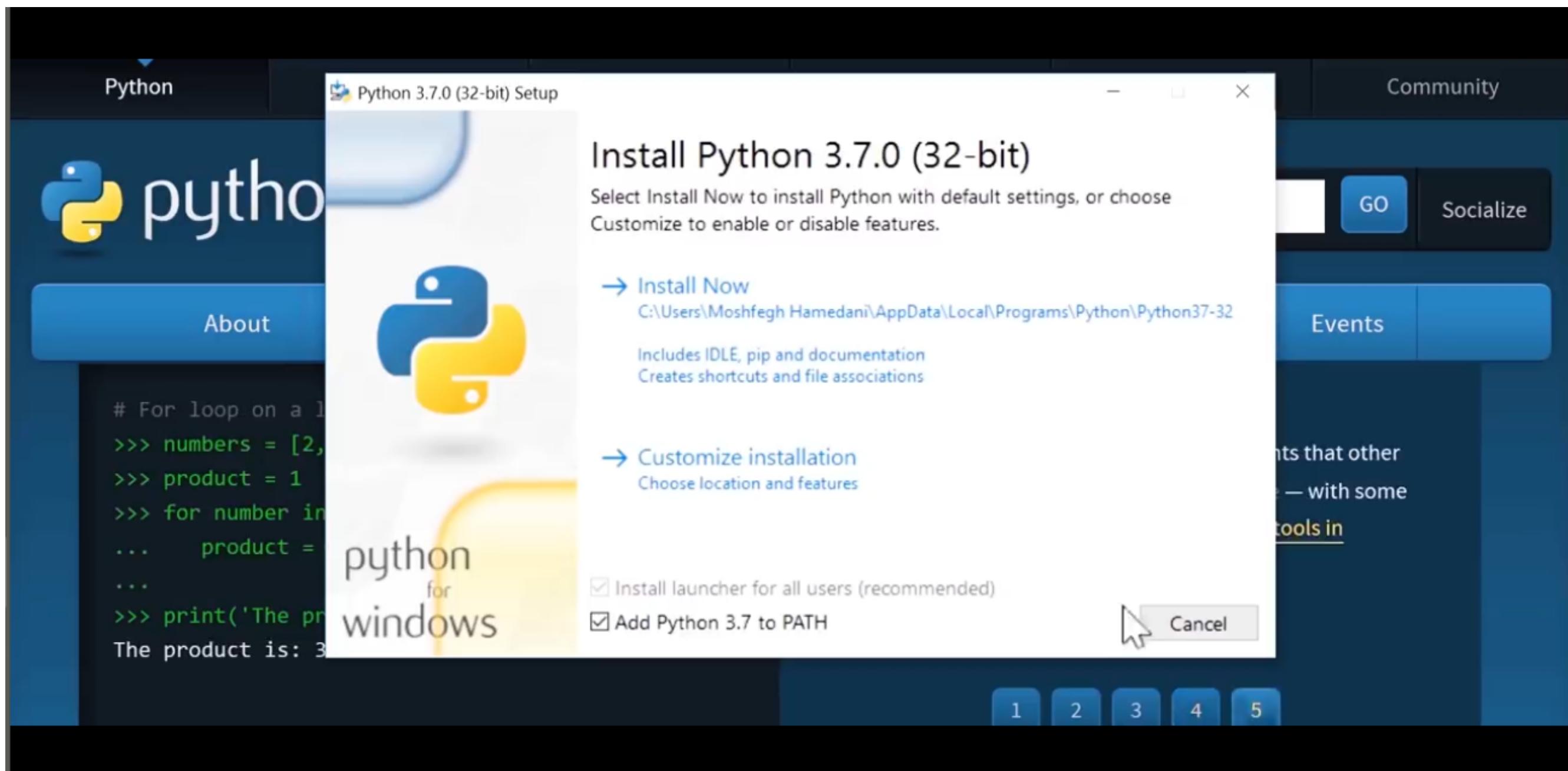
<https://www.letspy.tech/>

And finally, you can join our community Slack Channel also, to get the latest updates about our meetups and classrooms at:

<https://bit.ly/2MAoC0i>

LET'S GET STARTED...

INSTALLING PYTHON



YOUR FIRST PYTHON PROGRAM

```
print('Priyanka Saggu')
```

```
print("o-----")
```

```
print("    |   |")
```

```
print("*" * 10)
```

HOW PYTHON CODE GETS EXECUTED

VARIABLES

```
price = 10
rating = 4.9
name = 'Mosh'
is_published = False
print(price)
```

We check in a patient named John Smith.
He's 20 years old and is a new patient.

Solution

```
full_name = 'John Smith'  
age = 20  
is_new = True|
```

RECEIVING INPUT

```
name = input('What is your name? ')
print('Hi ' + name)
```

Ask two questions: person's name and favourite color.
Then, print a message like "Mosh likes blue"

Solution

```
name = input('What is your name? ')
favorite_color = input('What is your facorite color? ')
print(name + ' likes ' + favorite_color)
```

TYPE CONVERSION

```
birth_year = input('Birth year: ')
age = 2019 - int(birth_year)
print(age)
```

```
birth_year = input('Birth year: ')
print(type(birth_year))
age = 2019 - int(birth_year)
print(type(age))
print(age)
```

```
birth_year = input('Birth year: ')
print(type(birth_year))
age = 2019 - int(birth_year)
print(type(age))
print(age)
```

```
int()
float()
bool()
```

Ask a user their weight (in pounds), convert it to kilograms and print on the terminal.

Solution

```
weight_lbs = input('Weight (lbs): ')
weight_kg = int(weight_lbs) * 0.45
print(weight_kg)
```

STRINGS

```
course = 'Python for Beginners'
```

```
course = "Python's Course for Beginners"
```

```
course = "Python's Course for Beginners"
```

```
course = ''
```

Hi John,

Here is our first email to you.

Thank you,

The support team |

...

```
course = 'Python for Beginners'  
          012345  
print(course[0])
```

```
print(course[-1])
```

```
print(course[0:3])
```

```
print(course[1:])
```

```
print(course[:5])
```

```
course = 'Python for Beginners'  
another = course[:]
```

```
print(another)
```

A Quick exercise

```
name = 'Jennifer'  
print(name[1:-1])
```

FORMATTED STRINGS

```
first = 'John'  
last = 'Smith'  
John [Smith] is a coder
```

```
first = 'John'  
last = 'Smith'  
message = first + ' [' + last + '] is a cod|'  
John [Smith] is a coder
```

```
first = 'John'
last = 'Smith'
message = first + ' [' + last + '] is a code'
msg = f'{first} [{last}] is a coder'
print(msg)
```

STRING METHODS

```
course = 'Python for Beginners'  
len()  
course.upper()  
course.lower()  
course.title()  
course.find()  
course.replace()  
' in course
```

ARITHMETIC OPERATIONS

+

-

*

/ # returns a float

// # returns an int

% # returns the remainder of division

** # exponentiation - x ** y = x to the power of y

```
x = 10  
x = x + 3  
x += 3  
print(x)
```

```
x = 10  
x -= 3  
print(x)
```

OPERATOR PRECEDENCE

```
x = 10 + 3 * 2
```

?

```
x = 10 + 3 * 2 ** 2
```

?

```
x = (2 + 3) * 10 - 3
```

?

Operator precedence:

1. parenthesis
2. exponentiation
3. multiplication / division
4. addition / subtraction

MATH FUNCTIONS

```
x = 2.9
print(round(x))
```

```
x = 2.9
print(abs(-2.9))
```

```
import math

math.|
```

```
x = aacos(x)          math
print(acosh(x))       math
asin(x)               math
asinh(x)              math
atan(x)               math
atan2(y, x)           math
atanh(x)              math
ceil(x)               math
```

```
import math  
  
print(math.ceil(2.9))
```

```
import math  
  
print(math.floor(2.9))
```

IF STATEMENTS

if it's hot

It's a hot day

Drink plenty of water

otherwise if it's cold

It's a cold day

Wear warm clothes

otherwise

It's a lovely day

```
is_hot = False
is_cold = True

if is_hot:
    print("It's a hot day")
    print("Drink plenty of water")
elif is_cold:
    print("It's a cold day")
    print("Wear warm clothes")
else:
    print("It's a lovely day")

print("Enjoy your day")
```

Price of a house is \$1M.

If buyer has **good credit**,

they need to put down **10%**

Otherwise

they need to put down **20%**

Print the down payment

Solution

```
price = 1000000
has_good_credit = True

if has_good_credit:
    down_payment = 0.1 * price
else:
    down_payment = 0.2 * price
print(f"Down payment: {down_payment}")
```

LOGICAL OPERATORS

```
if applicant has high income AND good credit
    Eligible for loan
```

```
has_high_income = True
has_good_credit = True

if has_high_income and has_good_credit:
    print("Eligible for loan")
```

if applicant has high income OR good credit
 Eligible for loan

```
has_high_income = False
has_good_credit = True

if has_high_income or has_good_credit:
    print("Eligible for loan")
```

COMPARISON OPERATORS

```
if temperature is greater than 30
    it's a hot day
otherwise if it's less than 10
    it's a cold day
otherwise
    it's neither hot nor cold
```

```
temperature = 30

if temperature > 30:
    print("It's a hot day")
else:
    print("It's not a hot day")
```

```
|if name is less than 3 characters long  
|    name must be at least 3 characters  
otherwise if it's more than 50 characters  
|    name can be a maximum of 50 characters  
otherwise  
|    name looks good!
```

```
name = "J"

if len(name) < 3:
    print("Name must be at least 3 character")
elif len(name) > 50:
    print("Name must be a maximum of 50 character")
else:
    print("Name looks good!")
```