

# ***Python for Beginners***

Weekly Study Group for Python Beginners  
Starting October 22nd | 12PM ET



Register at [womenwhocode.com/events](https://womenwhocode.com/events)

# ***WELCOME!***

We will get started shortly.

Please share in the Chat:

- Where you are joining from
- What the weather is like today

***Reminder: Set your Chat to “Everyone”.***

# *Our Mission*

Empower diverse  
women to excel in  
technology careers



# *Our Vision*

A tech industry where diverse women and historically excluded people thrive at every level.



# CODE OF CONDUCT

**WWCode is an inclusive community**, dedicated to providing an empowering experience for everyone who participates in or supports our community, regardless of gender, gender identity and expression, sexual orientation, ability, physical appearance, body size, race, ethnicity, age, religion, socioeconomic status, caste, creed, political affiliation, or preferred programming language(s).

Our events are intended to inspire women to excel in technology careers, and anyone who is there for this purpose is welcome. We do not tolerate harassment of members in any form.

Our **Code of Conduct** applies to all WWCode events and online communities.


Read the full version and access our incident report form at

**[womenwhocode.com/codeofconduct](https://womenwhocode.com/codeofconduct)**



# /upcoming events

Learn more and register at  
[womenwhocode.com/python](https://womenwhocode.com/python)

**ONLINE**

Tuesday,  
**November 14**  
9:30 PM - 10:30 PM IST


💎 **Monthly Trivia** 💎 - Women Who Code Python


WWCode Python

Join others from all over the world to compete every month to answer 10 questions on Python! We'll keep track of the leaderboard throughout the series and the person with the highest points by the e...

REGISTER

☆ SAVE



**ONLINE**

Sunday,  
**November 19**  
10:30 PM - 11:15 PM IST

**Python for Beginners: Study Group**


Recurring

WWCode Python

Have you thought about learning Python but you don't know where to start? We will go through free course material provided by Python Institute in small segments and practice the example problems. Jo...

REGISTER

☆ SAVE



# */stay connected*

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# ***Python for Beginners***

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# MEET THE TEAM



**Lisa Adams**

General Volunteer  
WWCode Python



**Dilek**

General Volunteer  
WWCode Python



**Amma**

General Volunteer  
WWCode Python



**Soumya**

Leadership Fellow  
WWCode Python



**Shrishti**

Track Lead  
WWCode Python



# Our Speaker

## *Lisa Adams, General Volunteer*

Lisa has a B.S. in Electrical Engineering Tech. and has been employed as a Hardware Technical Writer in the satellite communications industry for more than 25 years.

In her free time, she volunteers with a variety of tech organizations and likes to learn all about software, especially Python and APIs! She is also a Women Who Code DFW Evangelist.



[PCEP-30-02]  
PCEP – Certified  
Entry-Level  
Python...  
Python Institute



# ***Welcome Back to No-Stress Python!***

## **Review Previous Week**

- Arithmetic Operators
- Variables
- Comments



**Note: Automate the Boring Stuff - Chapter 1 (If you have time!)**

# ***Review Previous Week***

## **Arithmetic Operators**

- `+ - * / // % **`
- An operator operates on the values
- Data and operators when connected together form expressions

# ***Review Previous Week***

## **Arithmetic Operator - Addition +**

- Adds 2 numbers.
- **Tricky! Don't confuse with + concatenate with strings.**

# Review Previous Week

Base → 2<sup>3</sup> ← Exponent\*\*

Base → 2 \*\* 3 ← Exponent\*\*

## Arithmetic Operator - Exponent \*\*

- When both numbers are integers, the result is an integer.
- When at least one number (Base or Exponent) is a float, the result is a float too.

# ***Review Previous Week***

**2 X 3**

**2 \* 3**

## **Arithmetic Operator - Multiplication\***

- When both numbers are integers, the result is an integer.
- When at least one number is a float, the result is a float too.



# ***Review Previous Week***

## **Dividend / Divisor**

### **Arithmetic Operator - Division /**

- The result produced by the division operator is **always** a float.

# *Review Previous Week*

## Arithmetic Operator - Integer Division //

- Sometimes you want the result produced by division to be an integer.
- The results are always rounded to the integer value that is less than the real (not rounded) result
- Integer by integer division gives an integer result. All other cases produce floats
- Negative numbers are **tricky** because Rounding goes toward the lesser integer value

# Review Previous Week

Regular Division	Integer Division
$22 / 8 = 2.75$	$22 // 8 = 2$
$6 / 4 = 1.5$	$6 // 4 = 1$
$2 / 1 = 2.0$	$2 // 1 = 2$
$1 / 2 = 0.5$	$1 // 2 = 0$
$2 / 3 = 0.6666666$	$2 // 3 = 0$
$-6 / 4 = -1.5$	$-6 // 4 = -2$

# ***Review Previous Week***

## **Arithmetic Operator - Modulo %**

- Remember - **M**odulo means **Re**m<sup>m</sup>ainder
- Sometimes, you only want the **Re**m<sup>m</sup>ainder that's left over from division

# Review Previous Week

	Modulus (Remainder)	
0 / 3 = 0 <b>Remainder 0</b>	0 % 3 = 0	0 % 2 = 0
1 / 3 = 0 <b>Remainder 1</b>	1 % 3 = 1	1 % 2 = 1
2 / 3 = 0 <b>Remainder 2</b>	2 % 3 = 0	2 % 2 = 0
3 / 3 = 1 <b>Remainder 0</b>	3 % 3 = 0	
4 / 3 = 1 <b>Remainder 1</b>	4 % 3 = 1	
5 / 3 = 1 <b>Remainder 2</b>	5 % 3 = 2	
6 / 3 = 2 <b>Remainder 0</b>	6 % 3 = 0	

# ***Review Previous Week***

**Tricky!  $12 \% 4.5 = 3$**



**Use ChatGPT  
as a tool.**

1. Calculate how many times `4.5` goes into `12` completely, which is `2` times (since `4.5 * 2 = 9`).
2. Subtract the complete part from `12` (`12 - 9`), and you get `3`.

So, the remainder is `3`, and that's why `12 modulo 4.5` is equal to `3` in Python.



# ***Review Previous Week***

## **Divide by Zero Error**

- Don't divide anything by Zero
- This applies to regular division, Integer division and Modulo

# Review Previous Week

## Order of Operators

- Move Left to Right unless there is an exponent.

Priority	Operator
1	**Exponent ( <b>Move Right to Left</b> )
2	Positive, Negative
3	Multiplication, Division, Integer division, <b>M</b> odulo (means <b>r</b> emainder)
4	Addition, Subtraction
Note:	Parentheses change the order

# Review Previous Week

## Order of Operators

$(5 * ((25 \% 13) + 100) / (2 * 13)) // 2$

Step 1: **25 % 13** = Remainder 12

Step 2:  $(5 * (12 + 100) / (2 * 13)) // 2$

Step 3:  $(5 * (112) / (2 * 13)) // 2$

Step 4:  $(560 / (2 * 13)) // 2$

Step 5:  $(560 / (26)) // 2$

Step 6: **21.538 // 2** = 10

Can use a calculator.



# ***Review Previous Week***

## **Variables**

- Variables are like boxes where you can store data.
- A Variable needs a name and value
- Must start with a letter
- Good Examples from PEP 8:
  - `my_variable`, `counter`, `my_number`
- Must follow naming rules

# ***Review Previous Week***

## **Variable Naming Rules**

- Variables can not have the same name as Keywords
- No spaces; use \_ for space
- No Keywords
- Must start with a letter

# Review Previous Week

## Keywords

False	await	else	import	pass
None	break	except	in	raise
True	class	<u>finally</u>	is	return
and	continue	lambda	try	for
as	def	from	nonlocal	while
assert	del	global	not	with
async	elif	if	or	yield



# *Review Previous Week*

## Variable Assignment Statements

**Var** = 1

**Var** is ...Variable name

**=** is ...Assignment Operator

**1** is ...Integer Value

# ***Review Previous Week***

## **Tricky!**

Don't Confuse Assignment Operator `=` with Comparison `==` which compares items. We will learn how to compare items later.

# ***Review Previous Week***

## **Shortcut Operators**

<b>+=</b>	<b>X=X + 2</b>	<b>X += 2</b>
<b>-=</b>	<b>X = X - 1</b>	<b>X -= 1</b>
<b>*=</b>	<b>X = X * 2</b>	<b>X *= 2</b>
<b>/=</b>	<b>X = X / 2</b>	<b>X /= 2</b>
<b>%=</b>	<b>X = X % 2</b>	<b>X %= 2</b>

# ***Review Previous Week***

## **Comments**

# This is a one line comment

""" This is a multi line comment.

Line number 2.

Line number 3.

"""

# *Python Quiz for Previous Week*

- What does right-side binding mean for Exponents?
- Is it OK to name variables after a Keyword?
- What does the `//` operation do?
- What Operator gives you the Remainder?

# *Assignment*

**Complete the following parts of Module 2:**

- Input Function
- String Operators

**Get your IDEs ready for next week!**



***Questions???***

***Thank You!***