ADVANCE DATA STRUCTURES & COMPARISON

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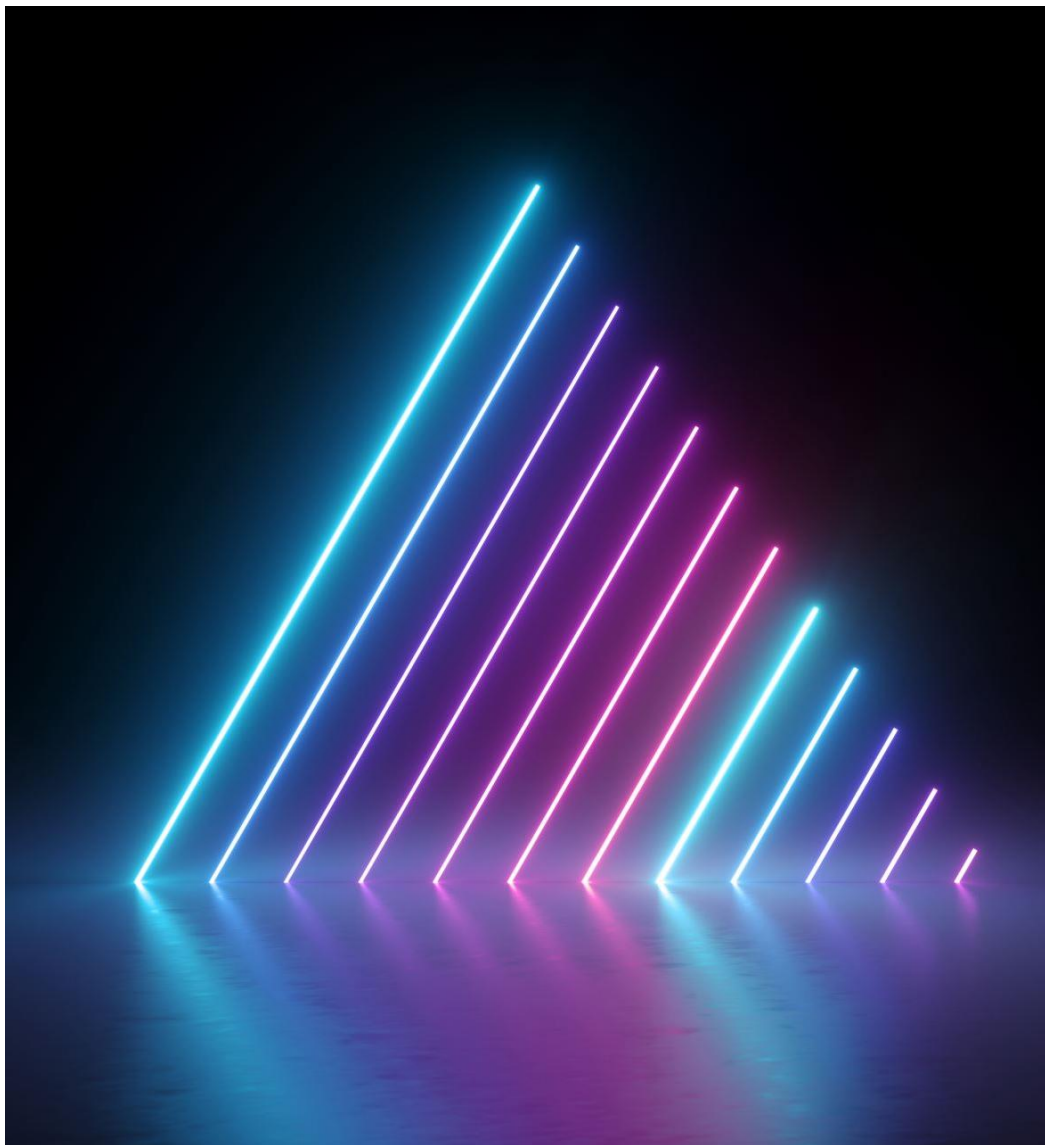
CONTENTS

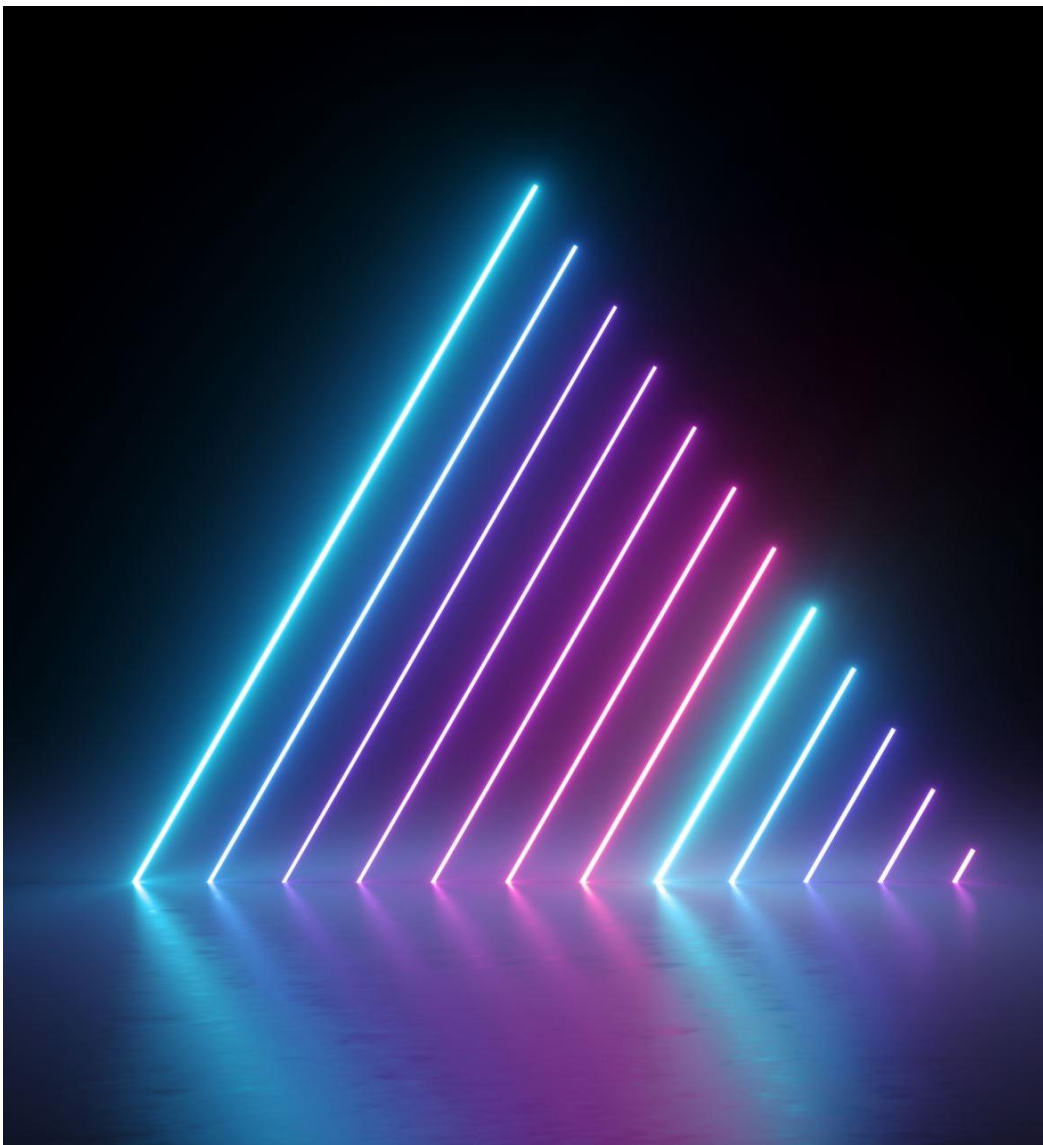Set (Union, Intersection, Difference)

Tuples

Unpacking/Comparing

Difference between List and Tuple

DATA STRUCTURE IN JUNGLE: THE WILD ENCOUNTER

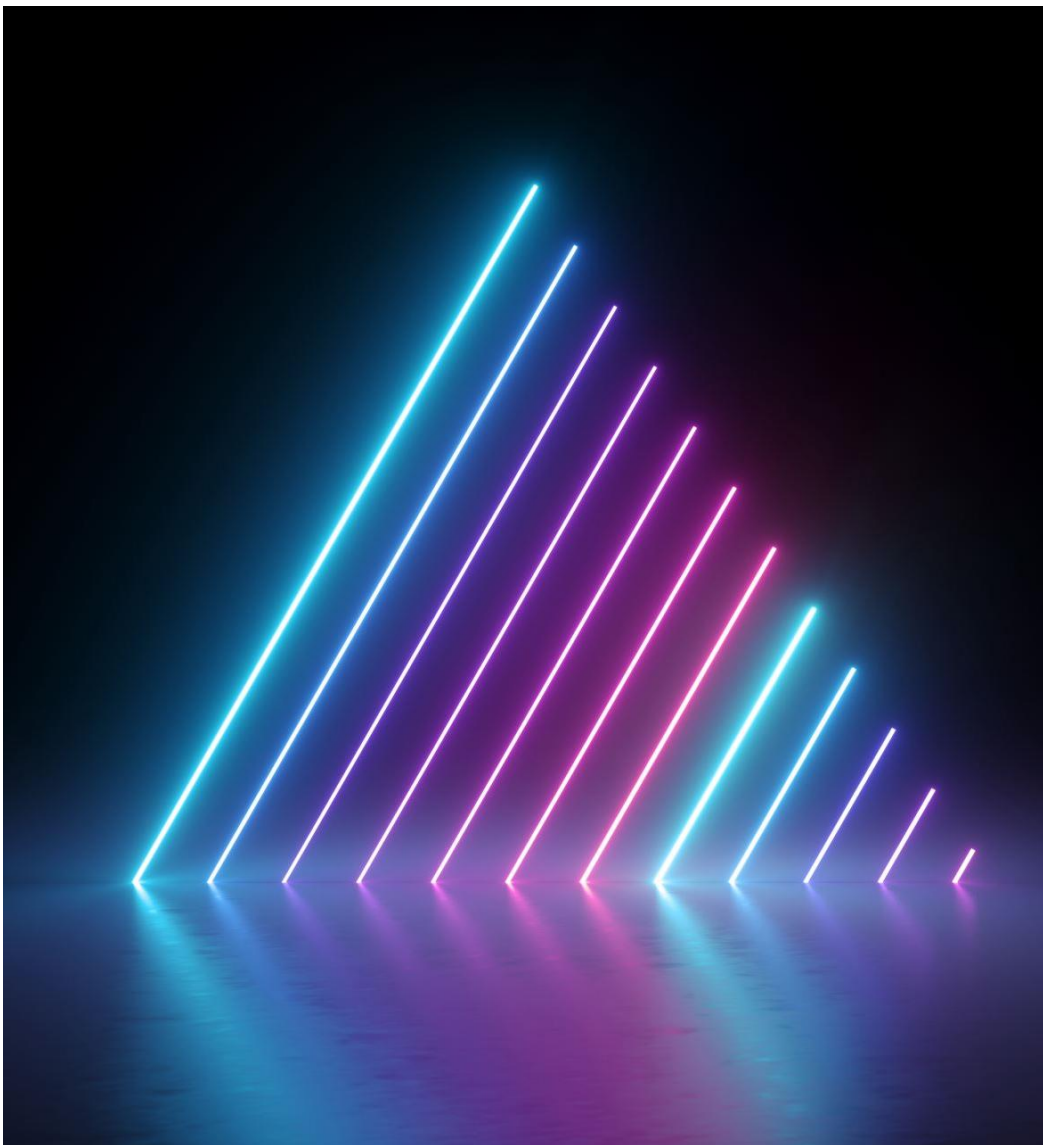A Funny Story to Learn Sets, Tuples, Lists, and More!

WELCOME TO DATA STRUCTURE JUNGLE

In the jungle of Python, animals don't just eat and sleep —

They sort, slice, unpack, and compare!

Meet our wild data structure friends:

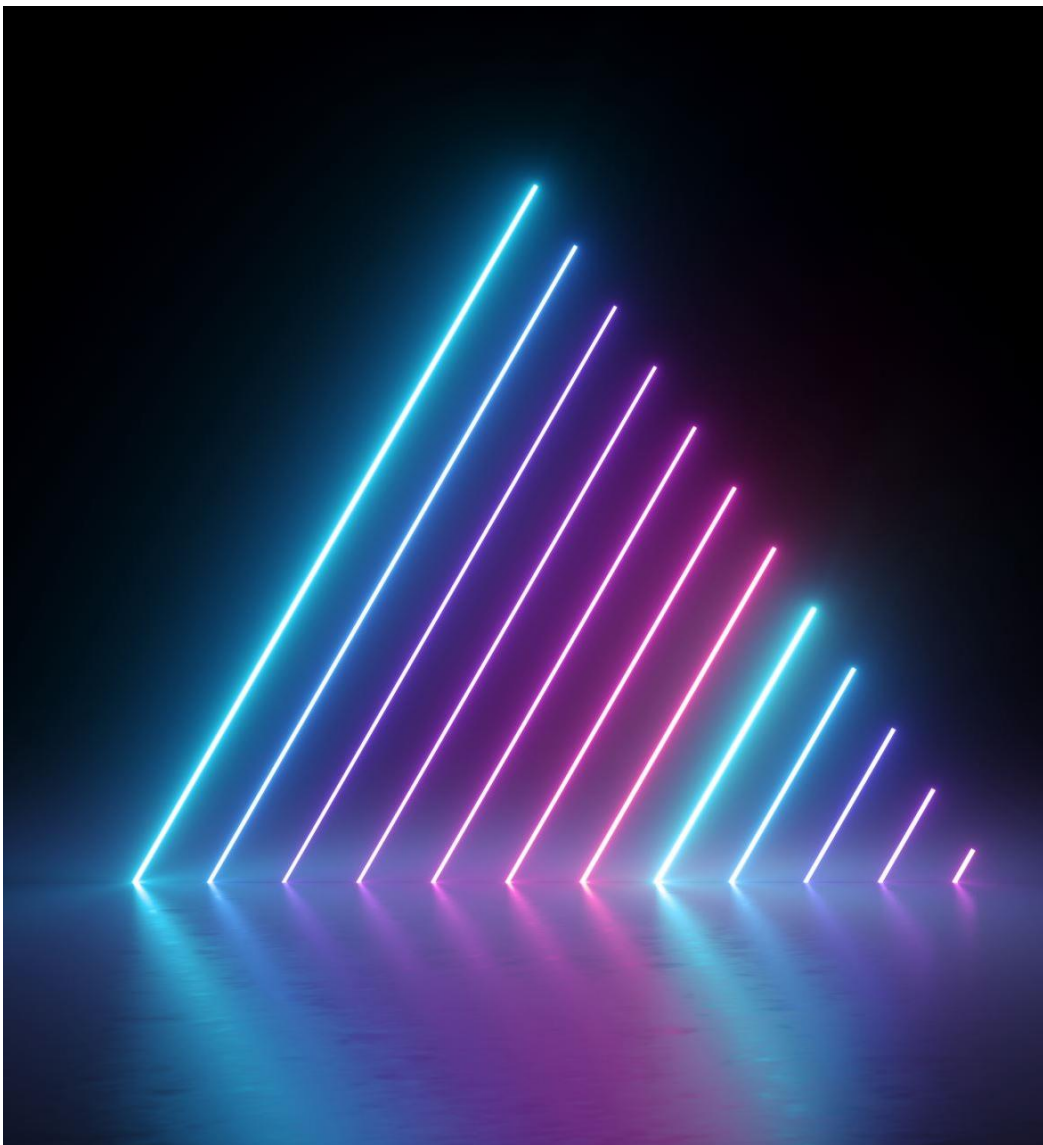❑ Liston the Monkey🐒 ,

❑ Tupletta the Elephant🐘 ,

❑ Setty the Lion🦁

LISTON THE MONKEY (LIST)

🐒 **Liston the Monkey** is jumping from branch to branch.

liston_bag = ['banana', 'mango', 'banana', 'apple']

➢ 🐒 Flexible and mutable

➢ 🐒 Can pop, append, remove, slice, and reorder
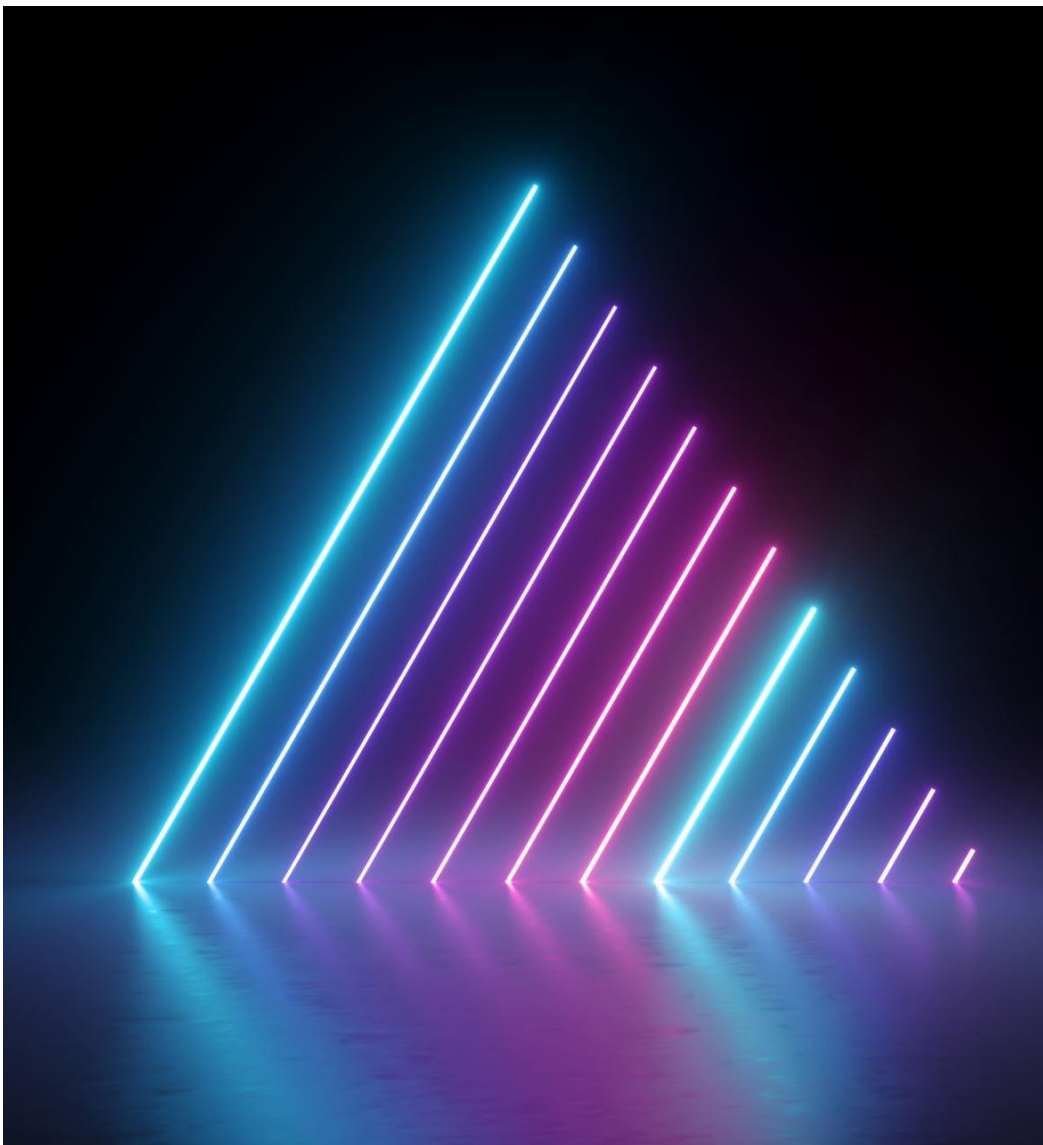
➢ 🐒 Throws data like bananas!

LISTON THE MONKEY (LIST)

Liston:
"Woohoo! I can add, remove, reorder, flip, or even eat my data. Just like this — *POP!* 🍌"

Snake:
He's flexible — **just like a List**. But be careful — give him too much power, and he'll throw your data at tourists.
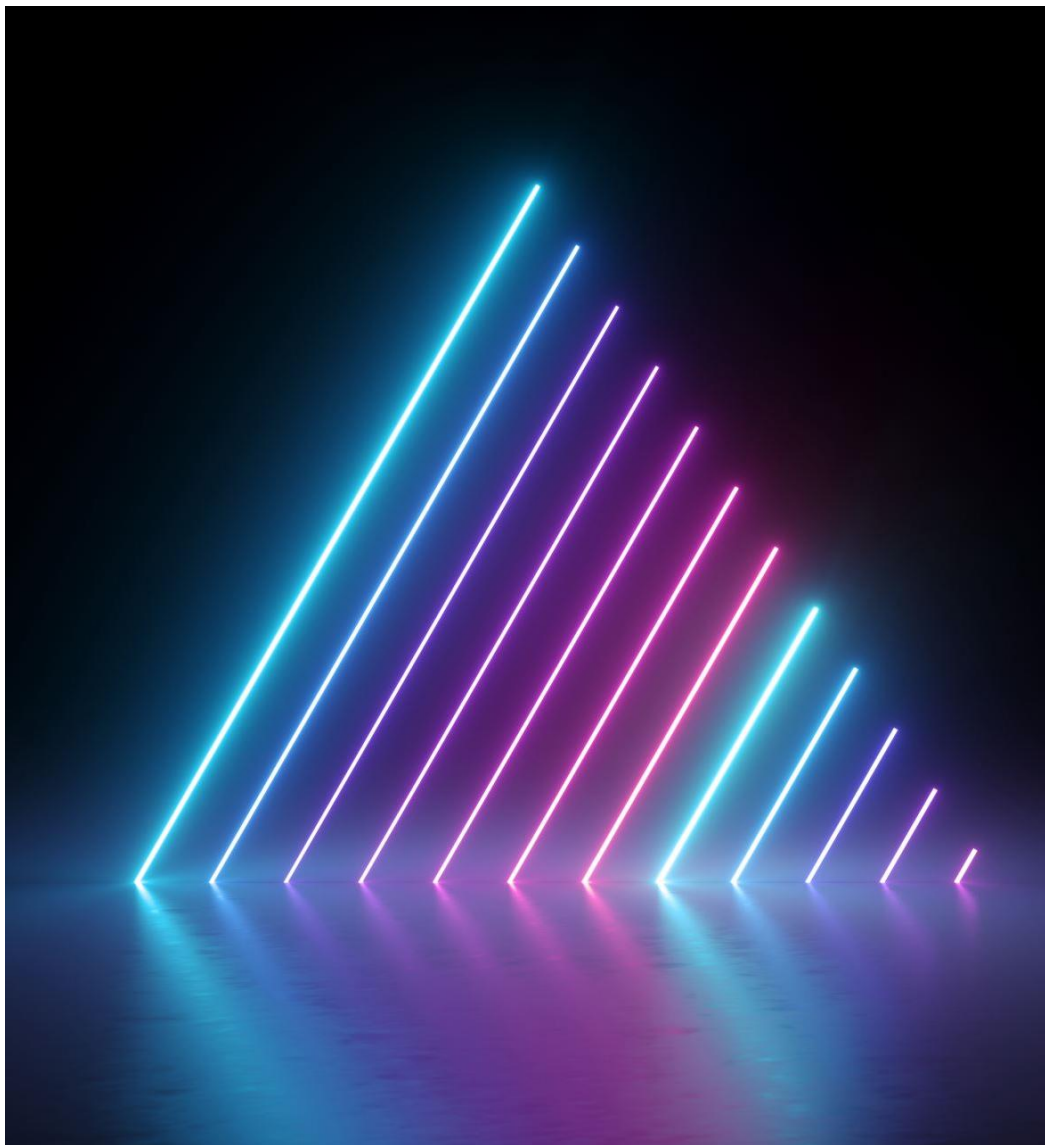
TUPLETTA THE ELEPHANT (TUPLE)

Suddenly, the ground shakes. 🐘 **Tupletta the Elephant** arrives, wearing royal jewelry made of parentheses.

tupletta_necklace = ('ruby', 'emerald', 'diamond')

➢ 🐘 Immutable and hashable

➢ 🐘 Great for fixed data

➢ 🐘 Carries precious, unchangeable info

TUPLETTA THE ELEPHANT (TUPLE)

Tupletta:
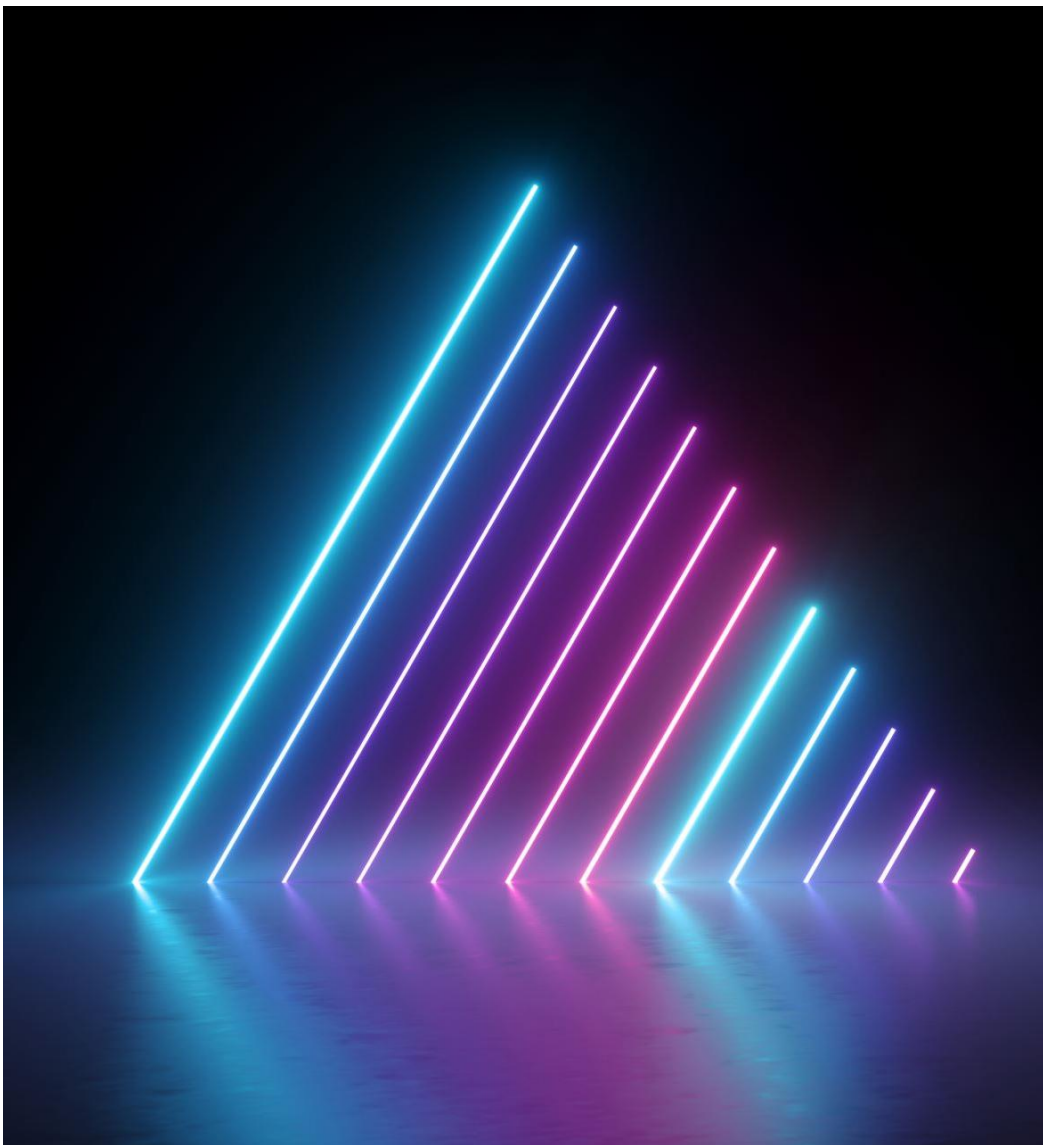 "I carry precious data. Try changing it — and I will STOMP on your code."

Liston:
 "Why so serious, Tupey?"

Tupletta:
 "Because I'm a tuple. I'm immutable. I don't do breakups. I'm forever."

Snake:
 Yes — **just like your grandmother's wedding ring** — **tuples** are fixed, hashable, and timeless. Great for dictionaries and maps!
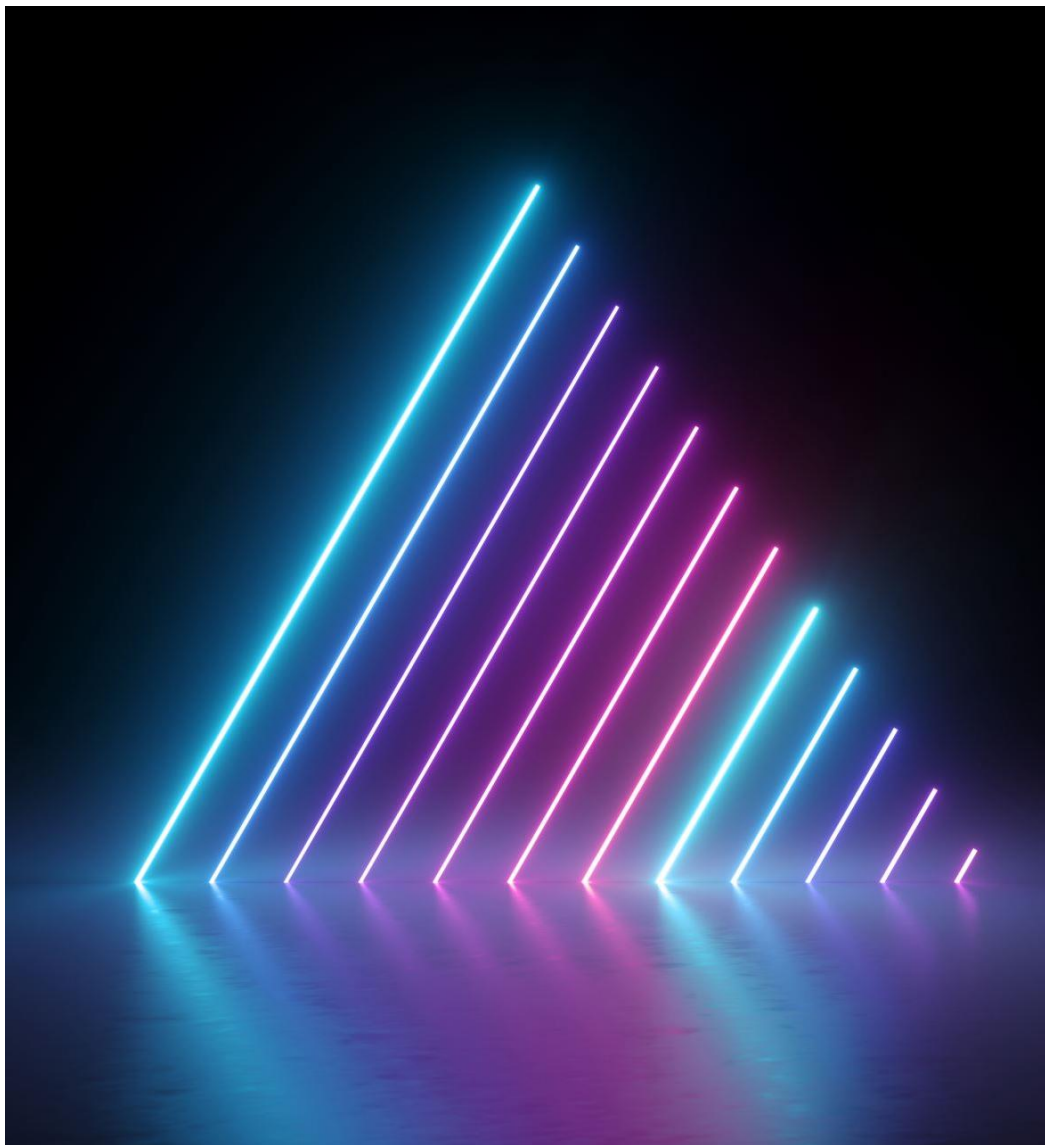
SETTY THE LION (SET)

Suddenly, a roar echoes. 🦁 **Setty the Lion**, king of the jungle, marches in.

Setty:
 "Who dared bring duplicates into MY jungle?"

setty_roar = {'apple', 'banana', 'apple', 'grape'}

➤ 🦁 Removes duplicates automatically

➤ 🦁 Values are unordered

➤ 🦁 No twins allowed in the jungle!
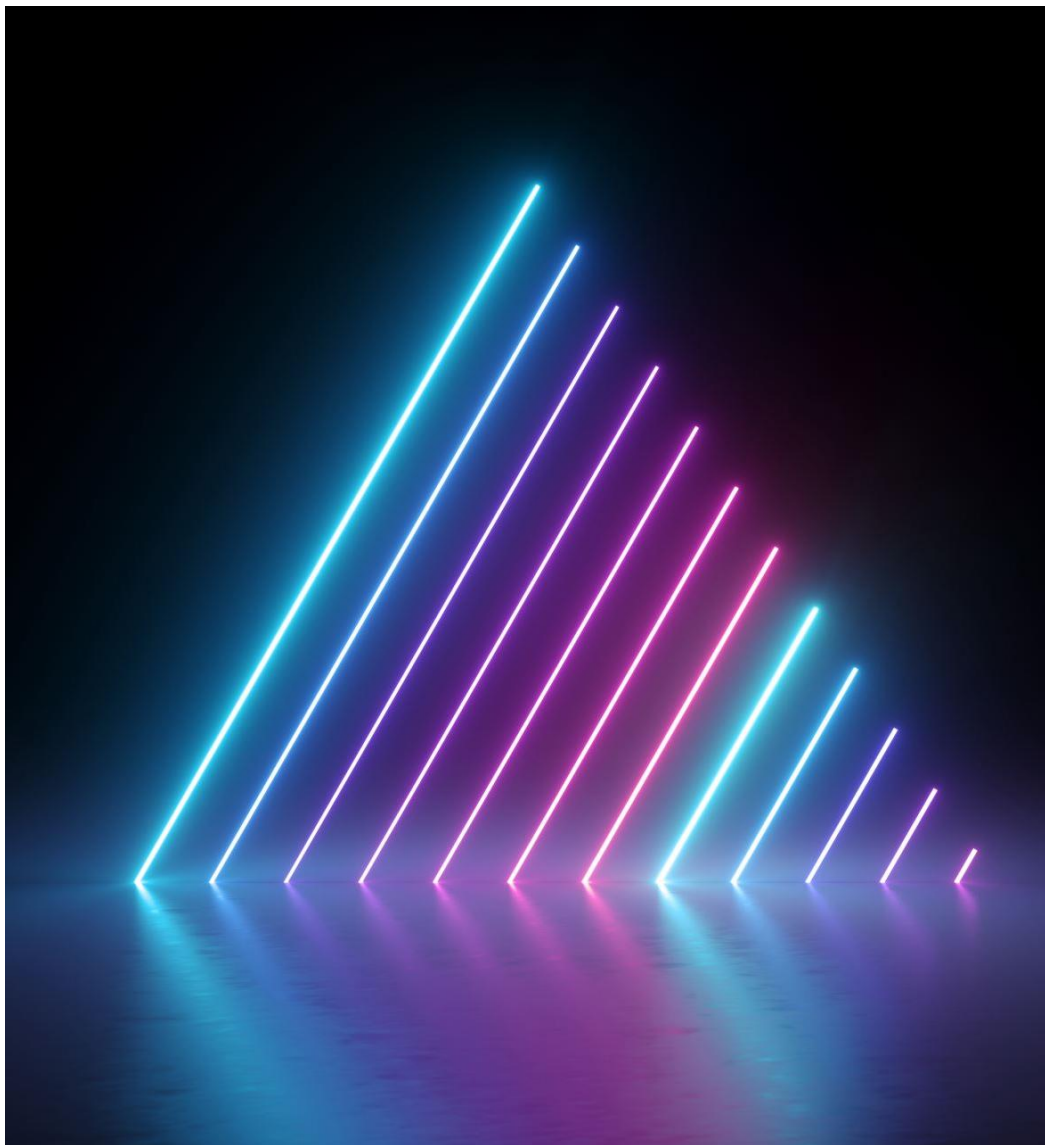
SETTY THE LION (SET)

Snake:
 Even if you write duplicates, Setty doesn't allow them. His roar removes all repetition.

Setty (roaring):
 "I only want UNIQUE items. No twins allowed!"
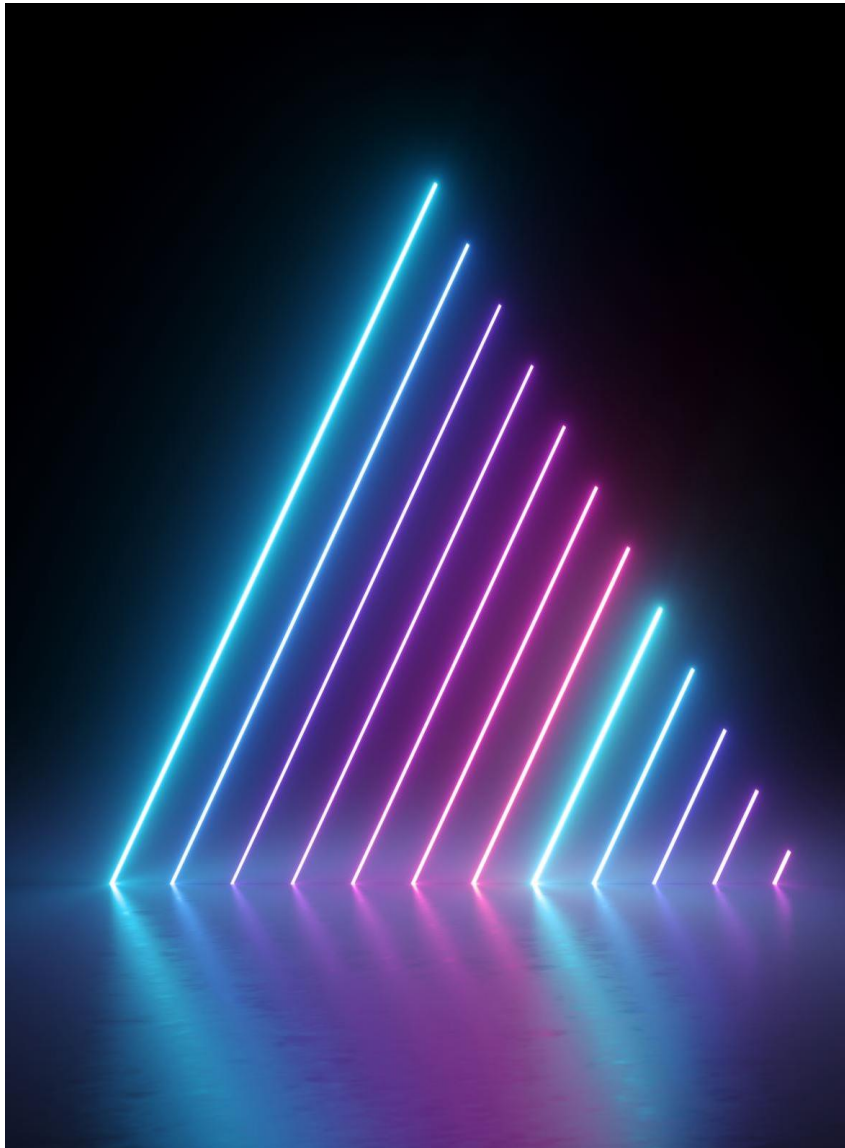
THE GREAT DEBATE – LIST VS TUPLE

At sunset, the jungle council begins.

🐒 **Liston (shouting):**
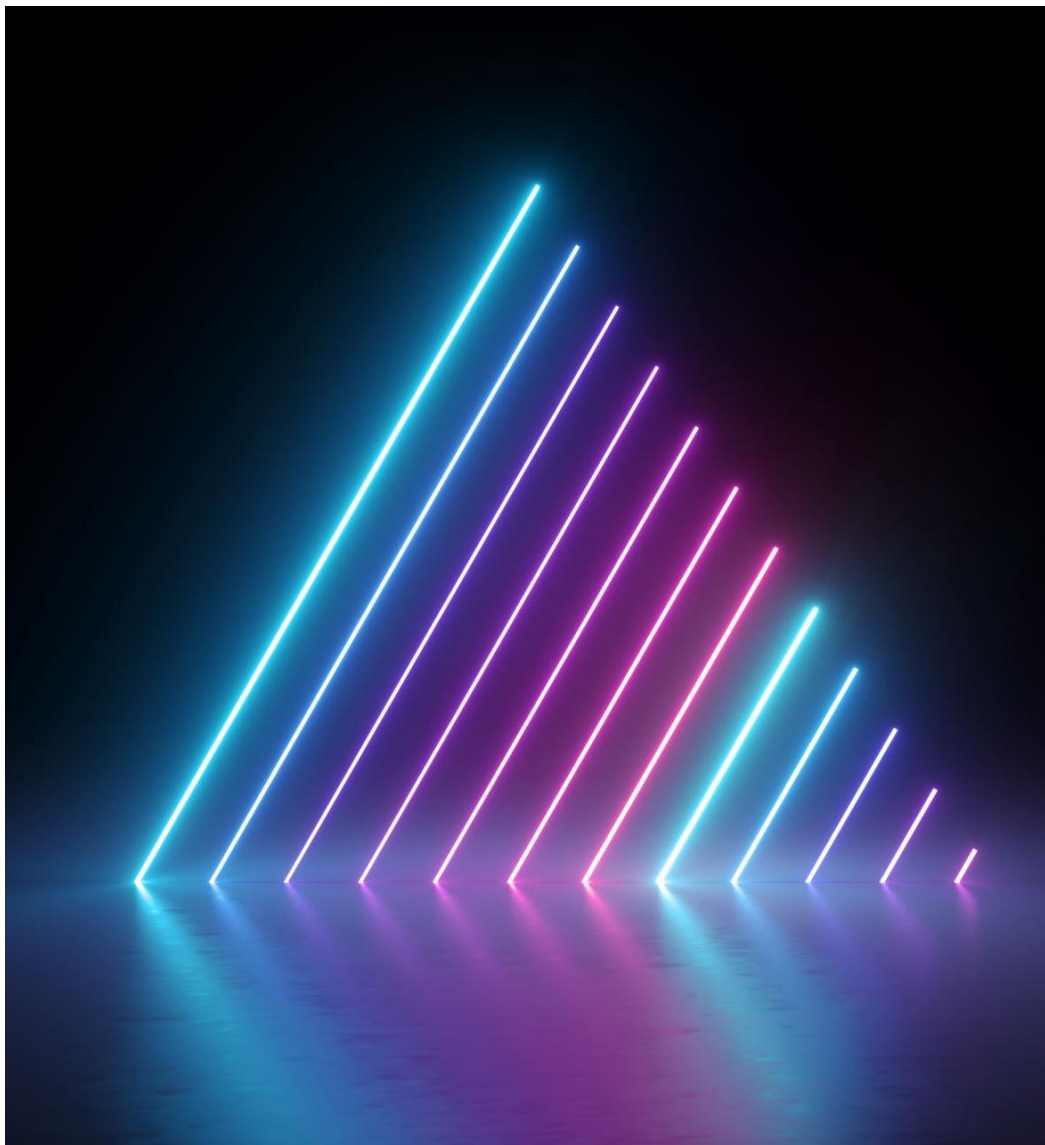 "I'm better! You can change me anytime. Add fruit. Remove snakes. Rearrange coconuts!"

🐘 **Tupletta (calmly):**
 "And that's *exactly* why I'm better. You *can't* change me. I'm trusted in jungle dictionaries and don't break when hyenas run over me!"

LIST VS TUPLE

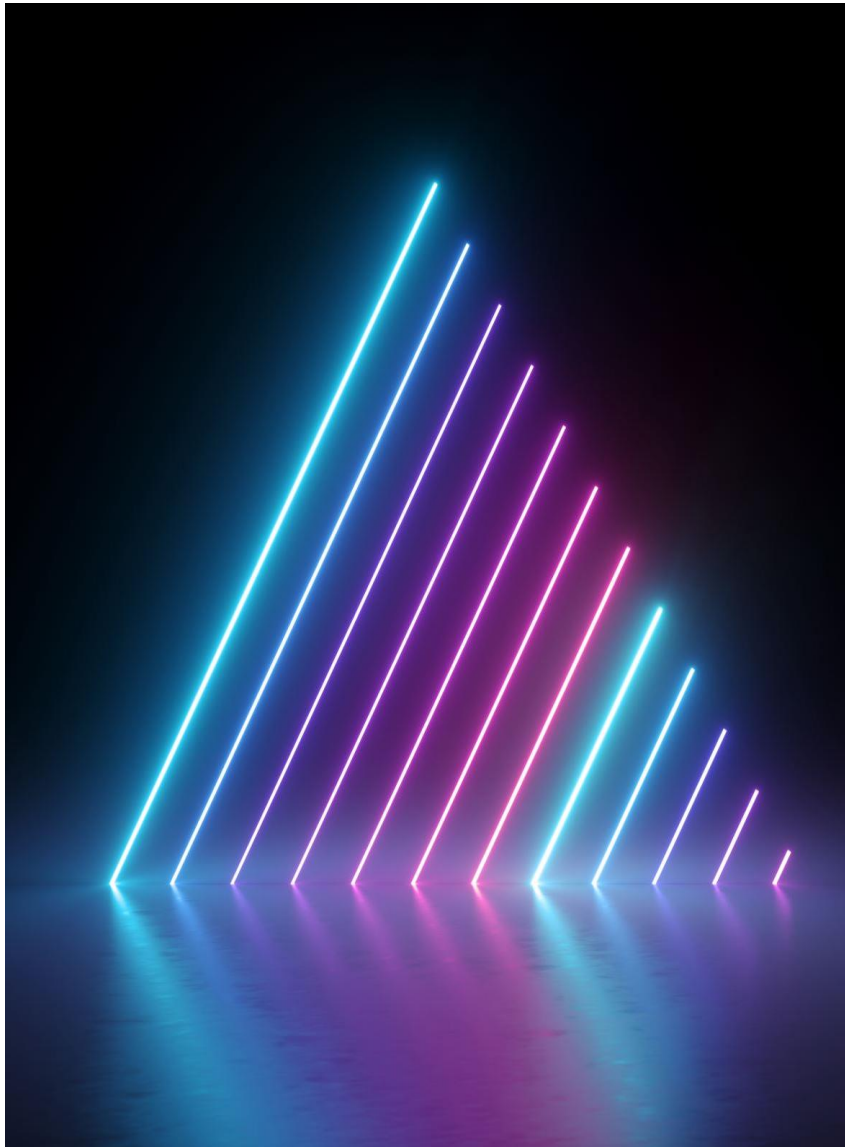| Feature	🐒 Liston (List)	🐘 Tupletta (Tuple)
Mutability	Mutable	Immutable
Syntax	[]	()
Performance	Slower (flexible)	Faster (fixed)
Hashable	❌ No	✅ Yes
Ideal For	Changing data	Fixed, constant data

THE GREAT DEBATE – LIST VS SET

🦁 **Setty (roaring):**
"I'm the king when it comes to fast membership tests and clean fruit baskets!"

🐵 **Liston (shrugging):**
"But if you want a wild party with fruit appearing five times... you know who to call."

LIST VS SET

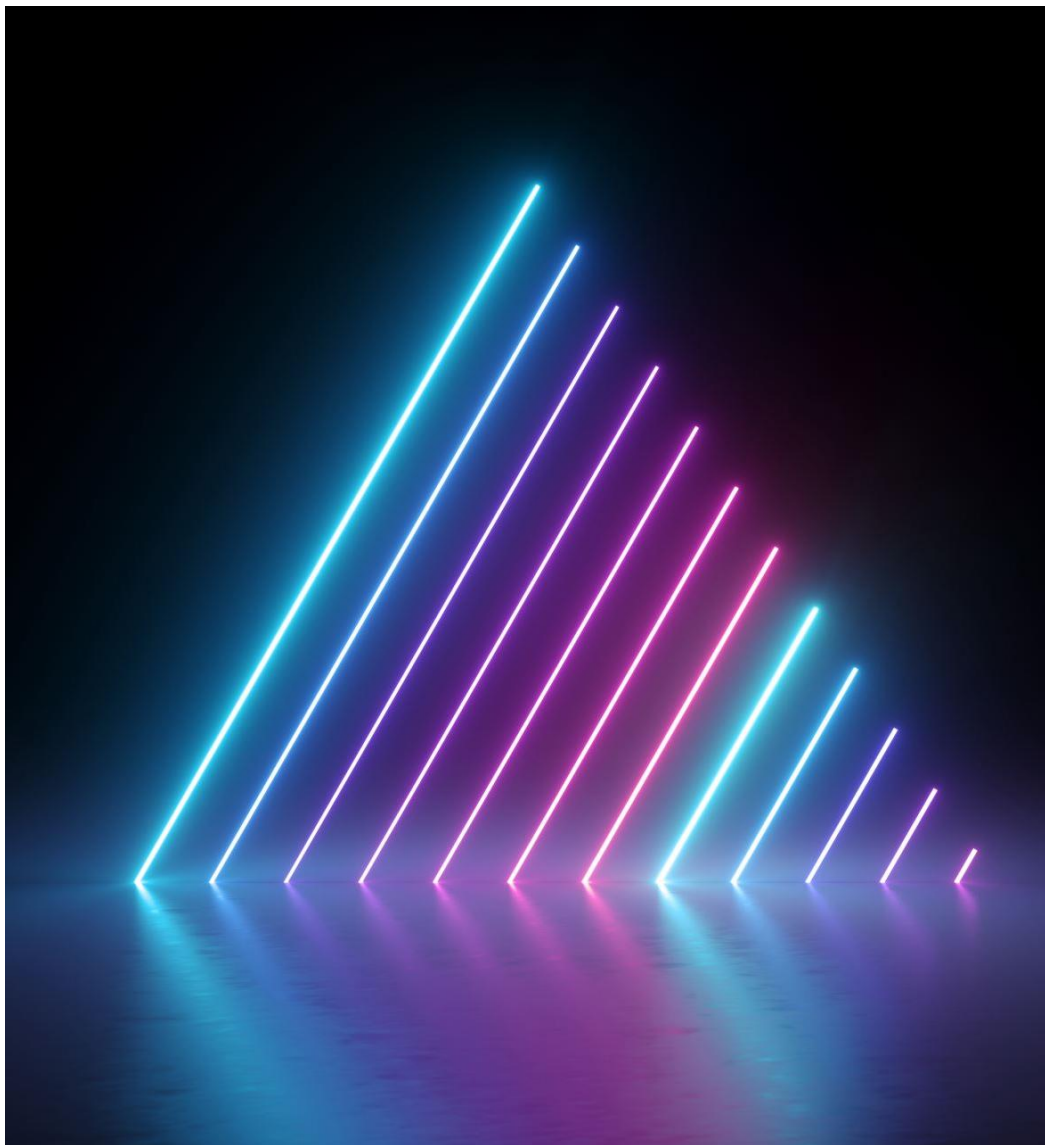| Feature	🐒 Liston (List)	🦁 Setty (Set)
Duplicates	✅ Allows duplicates	❌ No duplicates allowed
Order	✅ Maintains order	❌ No guaranteed order
Syntax	[]	{}
Mutability	✅ Mutable	✅ Mutable
Operations	Indexing, slicing, etc.	Union, Intersection, Difference
Performance	Slower in membership checks	Faster in membership checks
Ideal For	Ordered, duplicate items	Fast lookups, unique items

JUNGLE PEACE

🦁 **Setty:**
 "Silence! All of you are valuable in your own way. Lists are wild and free. Tuples are noble and strong. Sets are unique and organized. Together, we make Jungle Python powerful!"

Snake (You):
 And so, peace returned to the jungle, and the students of Data Structure Jungle learned to use their powers wisely.