	Page
	LISTS MIJAMANA
	Lests one mutable. Lests are leke a sequence. It can hold stems of various data types.
100	CREATING A LIST
gn:	myl = ['string', 23, 100.2, 'o']
	LEN FUNCTION
gn:	eln (myl)
%p:	4
	INDEXING & SLICING
- gn:	myl=['one','+wo', 'three', 4, 5]
9n:	myl[0] # Indening
o/p:	'one'
gn:	myl[1:3] # s19ang
. Ур:	['two', 'three']

		150		
	CONCATE	VATION	(-1011)	
gn:	myl + ['new]	talete . d	Lette and me	
o/p:	Cone, two, H	hnee, 4,5	new]	
tNote:	The doesn't	actually	ichange orge	inal
	Jest	0-001.83	Survey - Strice	i de
	REASSIGNA	1 1 10 10 10 10 10	LEN FUN	
9n;	myl = myl + ['.	new']	. (Day Copyre)	
gn:	myl		Chan an	.00
o/p;	['one', two', H	neo', 4,	s, 'new'	90
	DUDILCATIO	76 18	INDEXING	
	DUPLICATION	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	myle = ['one']'	90
9n:	myl # 9	mext La	re 107 gins	. 16
	'two',	'one',	'and to	90
	three',	three',	mylle3]	100
-	'm ew'	5/	and beautiful	100
		new)		1

Date
1 1 2 1 2 2 3 5 5 5 5
THE THE THE TANK
1014 AF
add an element
Jan 1 at
11.13.19 970
7900
off the last
No int
14/4/5/11 ale

POP - By default takes off the last enden, but we can also specify enden to pop

PPEND - To permanently

l1. append (append

[1,2,3, 'append']

9n: 11. pop (0)

gn: 17 = [1,2,3]

I LI

9n:

osp: 1

9n: LI # Show

0[p: [2,3, append]

#ASSIGN POPPEP ELEMENT

9n: pi= li-pop()

09n pi

o/p: append'

9n:	nl=['a', 'e', x', 'b', 'c']	
	LIST THOOPS	
gn:	nt reverse ()	
	12 - [1.2.3] - II	gn:
gn:	n	
	REVERSE 4	
demore	HPPEND - To permaisother add an	
gn:	nl. suverse ()	
	ell-append ("appind")	Fr.
gn:	nl	
	Item CI	900:
0/p:	['c', b', x', e', a']	-
	[1,2,3, appoint]	: 0/0
4 2 1		
	SORT	
Don't	11 OF - Py default takes of wint.	
9n;	nl-soite	
	fritte is the paper	- Sp. 97
gn:	nl	. 6
	M. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	705
ofp:	['a', 'b', 'c', 'e', 'x']	. 70
	Λ.Ι.	· d/.
-	NECTING LICTO	90.
	They means we can have data stre	ichilan
	within data structures	VC VI
	THEMPLE STRUCTURES WEIGHT	
on:	# Let's make three lests	
J . , .	17 = [1, 2, 3]	er.
	12=[4,5,8]	
	e3=[7,8,9]	090
317	· itamano le	n) a

	# Make a Lests
	THE CHIMINIA DIA
9n;	materia = [1, 12, 13]
200	Paris and in a margania the base
gn:	matrix
	Various and a first action of the strong a
0/0:	[[1,2,3], [4,5,6], [7,8,9]]
71	
	If grale first stem in matriz object
gn:	materia [0] #Grab 15 Herrin
%p:	[1,2,3] # matour object
	Constituted to Calleng the opening
	# Grab 1st Stem of 1st stem on the
	materia object
9n:	materia [0][0]
o/p:	1
70 1	For myd= of b1 : 123 '62': [12,28,33],
	107 (00000000000000000000000000000000000
	LIST COMPREHENSIONS
	They allow for queck constructions
	of & lests.
0	Ca7 1
<i>9</i> n:	flest_sol=[row[0] for row an matrix]
. 2	on the second of the second
9n:	frest-col
A/-	(1,4,7)
U/ P.	(4 4)0
•	

	1 (1) JPG-Sportage stadisty.	
	Juntes in a com conflar to leste housever	inleke
	Tuples are very semelar to lette, however re	
#	Create a suple	- 3
		90
gn:	t = (1, 2, 3)	
-	len(t)	0/p.
0		-
0/p:	3	
,	rules a const la contract of TVIII)	<u></u>
#	Can also mea object types	
	were ward much confer supper	
gna.	t=('one',2)	92
5	C (MIX) L)	010
gn:	t	7
011		
010:	('ene',2) VTI 119 ATMINIA	
-/		
#	Inderina	953
7	The state of the s	10
gn:	t[0]	1/2
0,,-		
0/p:	1	
~ / ₁₀	I Whom to me treeled a	
#.	110-Cn 2	
****	DITOTIO	
an.	1177	
Olp :	7	
_~/ \ / -	2	

	Methods (object method ())	
	J'IMOUS Object mernan	
	Lange on	
- in the	INDEX- Enter a realise & neturn	
	INDEX - Enter a reduce & secure	
	and analy	1
<u> </u>	Super a state of	
gn:	t. Ender ('one')	2
		-1116
0/p:	0	
4-3	9	1
FA.		- 3/0
-	COUNT -> court ng of temes a value	**
	appearo 3 1 million of the many	14
9n:	tocount(one')	\$ U.G.
0/0:	1	14
• •	3	1. 18
	7	
	I MMUTABILITY (S) Sensiti	10:4
gn:	tso7='change'	1
0/0.	t[0]='change' Type Error: 'tuple' object doeskt allow Stem aus Egmuent	
/ 1	allow Stem as comment	m. I
		16:
200	Whon to aire triples?	
	Tuples are not used as often as IP. on programming, but used when emmidal of necessary.	+4-
	En massanmen letter as le	M
- c'	En meaning, and used when emmita	bility
	od necessary.	116