Task 8 - Make a table of all the In-built data structures and Point out the differences one by one

	List	Dictionary	Tuple	Set
	lists are written with square brackets List1 =[1,True,"Spain",89.80]	dictionaries are written with curly brackets and they have keys and values separated by commas Dict1 = {"OS":"Windows","Model":"OnePlus"}	Tuples are written with round brackets. Tup1 = (1,3,"hello",True,5,6) to create a tuple with one element make use of comma(,) after the value	sets are written with curly brackets. Set1 = {1,2,6,"demo",True}
Stores different data types	Yes	Yes	Yes	Yes
Duplicate values	allowed	Keys should be unique	Allowed	Not allowed
order	retained	Not retained	retained	Not retained
mutable	Yes	Yes	No	Yes, items can be added or removed but not updated
Indexing and slicing	Yes, indexing starts with zero	Can access items using keys Proper indexing and slicing not possible	Possible	Not possible
adding elements	1 *.append(val)* 2. *insert(pos,element)* *3 .copy()* *4 .extend()*	dict1[key] = value Updates the value if key already exists, if not creates a new key and value	Adding can be done by converting tuple into list and again changing it to tuple	1 .add(value) 2 .update(list) - used to add multiple items at a time

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Removing elements	.pop(index)	1. pop(key) 2. popitem() removes the last inserted item 3. del keyword del dict1['year'] 4. clear() method - deletes the dictionary	Removing can be done by converting tuple into list and again changing it to tuple	1.remove(item) - if item doesnot exists throws an error 2.Discard(item) - similar as remove but doesnot throw an error if item doesnot exist 3.pop() - as set is unordered we cannot know which item is removed.