Informatique

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Dictionnaires

Résumé

Définition	Un dictionnaire est alors un ensemble de couples clé : valeur	

Création Ajout	<pre>dico = {}
	tel =
	{'Valentin':'0658951423','Cathy':'0751210783','Theo':'01
	69842154'}
	tel['Romain']='0836656565'
	Eleve = {}
	Eleve['nom'] = 'Pierre'
	Eleve['classe'] = 'MPSI'
	Eleve['notes info'] = [17,12,10]
	Eleve['age'] = 19</pre>	

Clé de type tuple ou réels	<pre>>>> Dico = {(1,1):1,(1,2):2,(2,1):3,(2,2):4}
	
	>>> Dico[(1,2)]
	2</pre>
		<pre>>>> Dico = {1.2:1,"a":2,(1,1):3}
		
		>>> Dico
		{1.2: 1, 'a': 2, (1, 1): 3}</pre>

Nombre d'éléments	`len(dico)`	
Résupération de valeurs	`dico['age']`	

Parcours	<pre>for cle in dico:
	    print(cle)</pre>
		<pre>for cle in dico:
		    print(dico[cle])</pre>

	<pre>for cle in dico.keys():
	    print(cle)</pre>
		<pre>for val in dico.values():
		    print(val)</pre>

	<pre>for cle, val in dico.items():
	    print(cle,val)</pre>	

Existence d'une clé	`cle in dico`	
Suppression d'un couple	`del dico[cle]`	

Applications	Comptage	

	<pre>L =
	[1,2,1,3,5,7,9,1,4,5,3,6,5,
	2,8,7,3,6,4,9,2,1,5,3,5,8,4
	,4,5,3,0,1,8,0]
	dico = {}
	for i in range(10):
	    dico[i] = 0
	for elem in L:
	    dico[elem] += 1
	print(dico)
	
	{0: 2, 1: 5, 2: 3, 3: 5, 4: 4, 5: 6, 6: 2, 7: 2, 8: 3, 9: 2}</pre>
		<pre>L =
		[1,2,1,3,5,7,9,1,4,5,3,6,5,
		2,8,7,3,6,4,9,2,1,5,3,5,8,4
		,4,5,3,0,1,8,0]
		dico = {}
		for elem in L:
		    if elem in dico:
		        dico[elem] += 1
		    else:
		        dico[elem] = 1
		print(dico)
		
		{1: 5, 2: 3, 3: 5, 5: 6, 7: 2, 9: 2, 4: 4, 6: 2, 8: 3, 0: 2}</pre>

	Chemin	

	<pre>dico = {'paris':'lyon','bordeaux':'saint
	etienne','lyon':'marseille','brest':'rouen','bastia':'li
	lle','nice':'brest','vienne':'valence','paris':'lyon','r
	ouen':'bordeaux','montpelier':'bastia','valence':'montpe
	lier','lyon':'marseille','saint
	etienne':'vienne','marseille':'nice','lille':'strasbourg
	'}
	
	Depart = 'paris'
	Arrivee = 'strasbourg'
	Intermediaire = Depart
	while Intermediaire != Arrivee:
	    Intermediaire = dico[Intermediaire]
	    print(Intermediaire)</pre>
	
	lyon
	marseille
	nice
	brest
	rouen
	bordeaux
	saint etienne
	vienne
	valence
	montpelier
	bastia
	lille
	strasbourg	