

Python Cheat Sheet: 14 Interview Questions

Question	Code	Question	Code
Check if list contains integer x	<pre>l = [3, 3, 4, 5, 2, 111, 5] print(111 in l) # True</pre>	Get missing number in [1...100]	<pre>def get_missing_number(lst): return set(range(lst[len(lst)-1])[1:]) - set(l) l = list(range(1,100)) l.remove(50) print(get_missing_number(l)) # 50</pre>
Find duplicate number in integer list	<pre>def find_duplicates(elements): duplicates, seen = set(), set() for element in elements: if element in seen: duplicates.add(element) seen.add(element) return list(duplicates)</pre>	Compute the intersection of two lists	<pre>def intersect(lst1, lst2): res, lst2_copy = [], lst2[:] for el in lst1: if el in lst2_copy: res.append(el) lst2_copy.remove(el) return res</pre>
Check if two strings are anagrams	<pre>def is_anagram(s1, s2): return set(s1) == set(s2) print(is_anagram("elvis", "lives")) # True</pre>	Find max and min in unsorted list	<pre>l = [4, 3, 6, 3, 4, 888, 1, -11, 22, 3] print(max(l)) # 888 print(min(l)) # -11</pre>
Remove all duplicates from list	<pre>lst = list(range(10)) + list(range(10)) lst = list(set(lst)) print(lst) # [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]</pre>	Reverse string using recursion	<pre>def reverse(string): if len(string)<=1: return string return reverse(string[1:])+string[0] print(reverse("hello")) # olleh</pre>
Find pairs of integers in list so that their sum is equal to integer x	<pre>def find_pairs(l, x): pairs = [] for (i, el_1) in enumerate(l): for (j, el_2) in enumerate(l[i+1:]): if el_1 + el_2 == x: pairs.append((el_1, el_2)) return pairs</pre>	Compute the first n Fibonacci numbers	<pre>a, b = 0, 1 n = 10 for i in range(n): print(b) a, b = b, a+b # 1, 1, 2, 3, 5, 8, ...</pre>
Check if a string is a palindrome	<pre>def is_palindrome(phrase): return phrase == phrase[::-1] print(is_palindrome("anna")) # True</pre>	Sort list with Quicksort algorithm	<pre>def qsort(L): if L == []: return [] return qsort([x for x in L[1:] if x< L[0]]) + L[0:1] + qsort([x for x in L[1:] if x>=L[0]]) lst = [44, 33, 22, 5, 77, 55, 999] print(qsort(lst)) # [5, 22, 33, 44, 55, 77, 999]</pre>
Use list as stack, array, and queue	<pre># as a list ... l = [3, 4] l += [5, 6] # l = [3, 4, 5, 6] # ... as a stack ... l.append(10) # l = [4, 5, 6, 10] l.pop() # l = [4, 5, 6] # ... and as a queue l.insert(0, 5) # l = [5, 4, 5, 6] l.pop() # l = [5, 4, 5]</pre>	Find all permutations of string	<pre>def get_permutations(w): if len(w)<=1: return set(w) smaller = get_permutations(w[1:]) perms = set() for x in smaller: for pos in range(0,len(x)+1): perm = x[:pos] + w[0] + x[pos:] perms.add(perm) return perms print(get_permutations("nan")) # {'nna', 'ann', 'nan'}</pre>