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bucket_sort.py

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1
2 # HSLU / ICS/AIML : Modul ADS : Algorithmen & Datenstrukturen
3 # Path : uebung09/al/aufgabe01
4 # Version: Tue Apr 15 11:57:57 CEST 2025
5
6 from collections import deque
7
8
9 def bucket_sort(sequence, n):
10     """
11     Sorts the sequence.
12
13     sequence: Sequence to be sorted.
14     n: The upper-bound of all values in sequence: 0..(n-1).
15     """
16     buckets = [None] * n
17
18     # TODO: Implement here Phase 1 ...
19
20     pretty_print(buckets)
21
22     # TODO: Implement here Phase 2 ...
23
24
25 def pretty_print(buckets):
26     print(str(buckets).replace("deque", "").replace("(", "").replace(")", ""))
27
28
29 if __name__ == '__main__':
30
31     my_list = [7, 1, 3, 7, 3, 7]
32     sequence = deque(my_list)
33     print(sequence)
34     bucket_sort(sequence, 10)
35     print(sequence)
36
37
38     """ Session-Log:
39
40     deque([7, 1, 3, 7, 3, 7])
41     [[], [1], [], [3, 3], [], [], [], [7, 7, 7], [], []]
42     deque([1, 3, 3, 7, 7, 7])
43
44     """
```