Sorts

CSC 505 Spring 2022 (001)

Nathan Vercaemert

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1 Insertion Sort

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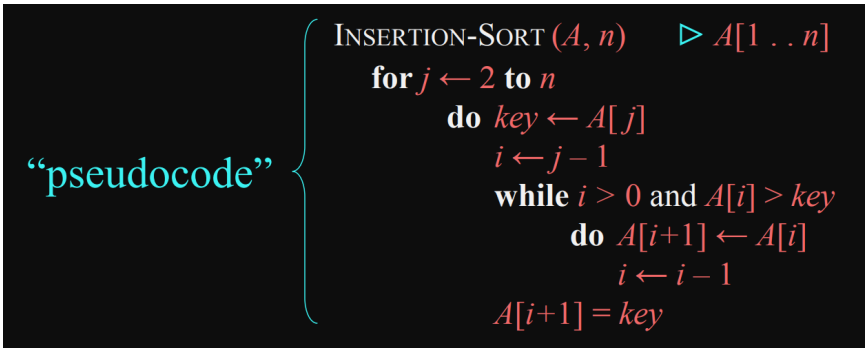

1.1 Stack Overflow

`https://stackoverflow.com/questions/12755568/how-does-python-insertion-sort-work`
Title: How does Python insertion sort work?

```python
def insertion_sort(seq):
    for i in range(1, len(seq)):
        j = i
        while j > 0 and seq[j - 1] > seq[j]:
            seq[j - 1], seq[j] = seq[j], seq[j - 1]
            j -= 1
```

1.2 Changes

- Variable names were changed for consistency with mergeSort.
- Operator was switched to "less than" for consistency.

1.2.1 Note

Psuedocode does not exactly match implementation, but close inspection will reveal that the execution matches psuedocode.

2 Merge Sort

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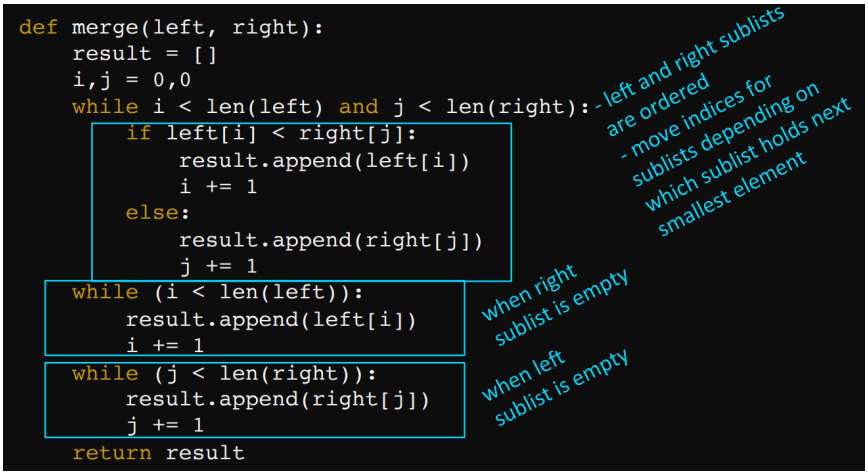

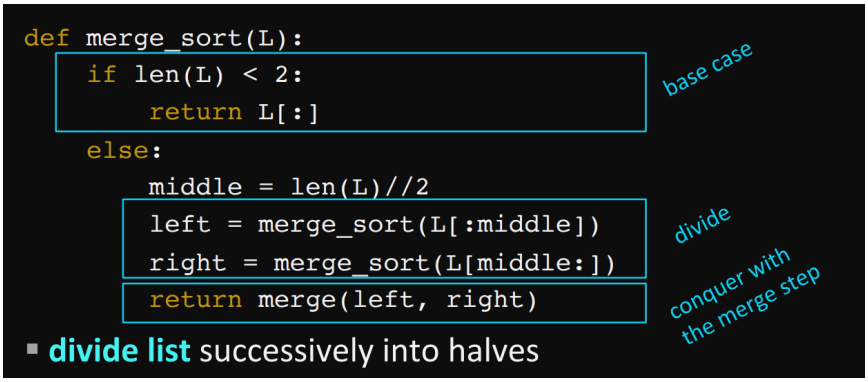

2.1 Changes

- Variable names were changed for consistency.
- Assignation of "middle" incorporates int() for readability.
- "<=" used instead of "<" in "merge" to make sort stable.