4.1. Objectives

- To understand the abstract data types stack, queue, deque, and list.
- To be able to implement the ADTs stack, queue, and deque using Python lists.
- To understand the performance of the implementations of basic linear data structures.
- To understand prefix, infix, and postfix expression formats.
- To use stacks to evaluate postfix expressions.
- To use stacks to convert expressions from infix to postfix.
- To use queues for basic timing simulations.
- To be able to recognize problem properties where stacks, queues, and deques are appropriate data structures.
- To be able to implement the abstract data type list as a linked list using the node and reference pattern.
- To be able to compare the performance of our linked list implementation with Python's list implementation.

You have attempted 1 of 1 activities on this page

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