Problem 1 (Array vs linked list) *Comparing array lists and linked lists, for each of the following list operations, which one typically runs faster? Answer one of array lists, linked lists, or roughly the same.*

(a) append

(b) prepend

(c) len

(d) insert_at

(e) remove_at

(f) is_empty

(g) at

PROBLEM 2 *Comparing array lists and linked lists, which one would be more appropriate for each of the following usage? Why?*

(a) *A browser's back and forward buttons. Frequent addition and removal of URLs would occur at both ends.*

(b) *Spotify (or similar online music streaming services) Playlist, where random access is needed to play any song in the playlist and needs to be able to play on shuffle.*

(c) *A text editor where characters are frequently inserted or removed in the middle of the text.*

PROBLEM 3 *How many hours did you spend for this assignment?*

PROBLEM 4 *What is the most difficult aspect of this assignment, if any?*

PROBLEM 5 *Document your collaboration here.*