

Minishell AST (Abstract Syntax Tree) Checklist

This checklist covers the implementation of the Abstract Syntax Tree (AST) used to structure and execute shell command logic in Minishell.

- [] Define t_command_tree with left/right and type
- [] Support node types: N_EXEC, N_PIPE, N_ANDIF, N_OR
- [] Create AST node creation functions (e.g., create_exec_node())
- [] Assign left/right children correctly during parsing
- [] Wrap simple commands into N_EXEC with t_exec as data
- [] Build tree recursively from token list
- [] Respect operator precedence: (), &&, ||, |
- [] Handle grouping with parentheses as subtrees
- [] Ensure AST structure is testable with example inputs
- [] Implement execution logic that traverses AST recursively
- [] Free entire AST tree with free_ast()
- [] Optional: add print_ast() for debugging purposes

Use this checklist to ensure your AST is robust, traversable, and easy to debug.