

Minishell Builtins Checklist

This checklist covers the implementation of builtin shell commands in Minishell, such as echo, cd, env, export, unset, pwd, and exit. Each command should mimic the behavior of bash as closely as possible.

- ☐ Create is_builtin() to check if command is builtin
- ☐ Create exec_builtin() to dispatch builtin execution
- ☐ Implement echo:
 - ☐ Handle -n option
 - ☐ Support multiple arguments
 - ☐ Print with or without newline
- ☐ Implement cd:
 - ☐ Change to HOME if no argument
 - ☐ Support relative and absolute paths
 - ☐ Update OLDPWD and PWD in env
- ☐ Implement pwd:
 - ☐ Print current working directory using getcwd()
- ☐ Implement export:
 - ☐ Add new variables or update existing ones
 - ☐ Sort and print env when called without arguments
- ☐ Implement unset:
 - ☐ Remove variable from environment list
 - ☐ Ignore invalid identifiers
- ☐ Implement env:
 - ☐ Print all exported environment variables
- ☐ Implement exit:
 - ☐ Exit with status 0 by default
 - ☐ Parse numeric argument and validate
 - ☐ Print error and exit 255 if invalid
- ☐ Handle exit from parent process (not just child)

Use this checklist to verify each builtin is properly implemented and tested.