NestAI CLI Tool Front End Testing

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1. Overview

Tool Name: NestAI
Version: MVP
Tester: the NestAI team
Date: Nov 20, 2025

Purpose: Verify that the CLI interface behaves correctly, handles user input, displays expected output, and gracefully manages errors.

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2. Testing Environment

Operating System: (e.g., macOS 14, Ubuntu 22.04, Windows 11 WSL)
Shell / Terminal: (e.g., Bash 5.1, Zsh 5.9)
Dependencies Installed: (Python, Node, Java, OpenAI keys, etc.)
Build/Run Command: need this

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3. Test Scenarios

3.1 Basic Startup

Test ID	Scenario	Steps	results
CLI - 01	Launch CLI	Run nestai “...”	Takes in the prompt and starts the regeneration of a more secure prompt
CLI - 02	Help Flag	Run nestai history	Redirects to history audits

3.2 User Input Handling

Test ID	Scenario	Steps	results
CLI - 03	Valid input	Enter a valid command	Continues as expected
CLI - 04	Invalid input	Enter an invalid command	Dquote error handling. Assumes forgot parentheses

Test ID	Scenario	Steps	results
CLI - 05	Empty input	Enter a blank input	Error handling: no command given

3.3 Performance testing

Test ID	Scenario	Steps	results
CLI - 06	Small input	Enter a small and vague prompt	The quickest time to run
CLI - 07	medium input	Enter a medium and slightly vague prompt	Matches the avg run time.
CLI - 08	large input	Enter a long and extensively detailed prompt	Typically the longest time to run.

Caveat – large dependency on the info within the prompt and goal of prompt

3.4 Output Formatting

Test ID	Scenario	Steps	results
CLI - 09	Text Structured format	Any command that returns text	Consistent text structure over multiple test runs
CLI - 10	Color format	Any command that may return color variation	Consistent color structure over multiple test runs
CLI - 11	Overall structured format	Various command pathways	Consistently follows correct pathways based on inputs from front end

3.4 Usability

Test ID	Scenario	Steps	results
CLI - 11	Instructions	Identify instruction parameters and make sure they can be followed	Case-sensitive but easy to execute and understand based on instructions

Test ID	Scenario	Steps	results
CLI - 12	Structured use	Is content after giving commands easy to follow.	Yes, uses color scheming & bolding for headers as well as tables to organize information and processes
CLI - 13	Exit behavior	Does it loop well when needed Easy to go from one component to another	Has suitable change from prompting to history components Looping and iterations work well.

3.4 unique use cases

Test ID	Scenario	Steps	results
CLI - 14	Malicious prompts	Feed multiple malicious prompts to NestAI	terminates expected following processes of normal workflow, sends to history, and then quits.
CLI - 15	Reiteration prompts	Feed multiple reiteration loops with new alterations	No endless looping errors. Correctly allows change and sends to top of process all over again
CLI - 16	Prompt with tradeoffs against security	Feed multiple tradeoff prompts at initial and reiteration stages	Accurately takes in requested trade offs, adds it to the new generated prompt and then goes through prompt regeneration all over again.