

# Researchers on the Ring programming language team have published a paper on using Claude Code to build a TUI framework

*A practical evaluation of using AI-assisted coding to construct a TUI framework for the Ring programming language*

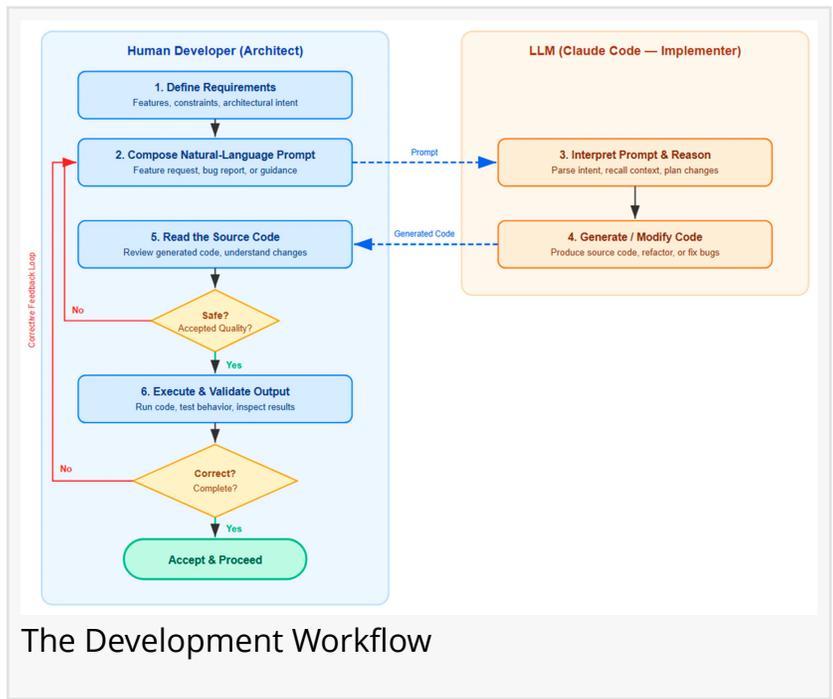
TX, UNITED STATES, February 24, 2026 /EINPresswire.com/ -- The [Ring Programming Language](#) Team has published a [new journal paper](#) demonstrating how Claude Code (Opus 4.5) can be used to construct a complete Terminal User Interface (TUI) framework using natural-language prompts alone. While large language models (LLMs) are already widely used in industry for specific code completion, refactoring, and generation tasks, this research provides structured evidence of an LLM generating an entire framework—end-to-end—within an emerging programming language. The study was conducted by the creator of the Ring programming language and [Eng. Ahmed Samir Fayed](#), who works in Research and Development at Saudi Air Navigation Services (SANS).



Eng. Ahmed Samir Fayed

The paper, “Prompt-Driven Development with Claude Code: Developing a TUI Framework for the Ring Programming Language,” documents the creation of the first comprehensive TUI framework for Ring. The system spans 7420 lines of code, all produced through iterative prompting. Across 107 prompts, the authors guided Claude Code through feature requests, bug fixes, architectural refinements, and language-specific corrections—without writing any code manually. The study reports that most prompts were brief, with a mean length of approximately 258 characters and a median of 207 characters, reflecting a highly iterative workflow driven by concise natural-language instructions. It also shows that corrective prompts dominate real workflows, accounting for 67% of all interactions, underscoring the importance of human oversight in LLM-assisted development.

A Realistic Look at LLM Capabilities  
 Although 7,000 lines of code is modest by industry standards, it is substantial for research, especially when evaluating long-range reasoning, architectural consistency, and multi-module coherence. Most academic studies focus on small utilities or single-file programs; few attempt to build full frameworks, and none have done so for the Ring programming language. This journal paper provides empirical evidence of how an LLM behaves when tasked with building a multi-phase, multi-component system in an



The Development Workflow

emerging programming language. The study formalizes Prompt-Driven Development (PDD), a methodology where the human developer acts as architect and the LLM serves as implementer. Unlike “vibe coding,” where developers accept AI-generated code with minimal review, PDD

“

This study shows what becomes possible when human creativity and LLM capabilities meet with structure and discipline. By guiding Claude Code, we were able to produce a powerful TUI framework for Ring”

*Dr. Mahmoud Samir Fayed,  
 Creator of the Ring  
 Programming Language*

emphasizes iterative refinement, code inspection, execution-based validation, and corrective feedback. The analysis highlights how Claude Code adapted to Ring’s top-down execution model, maintained architectural coherence across dozens of modules, and handled complex UI subsystems such as window managers, grids, trees, menus, and tab controls. The findings also show that human oversight remains essential, particularly for runtime behavior, event handling, and language-specific constraints.

#### Expanding the Ring Ecosystem

Ring, an emerging programming language known for its simplicity, multi-paradigm flexibility, and support for natural-language programming, previously lacked a full

TUI framework. This project fills that gap and provides a reusable foundation for developers, educators, and tool builders. The new framework can be used with PWCT2 (Programming Without Coding Technology 2.0), enabling PWCT2-based applications to incorporate terminal-based user interfaces built with the framework. While companies already use LLMs in their development workflows, they typically rely on them for specific tasks—not for generating entire frameworks. This journal paper offers a realistic, evidence-based look at what LLMs can and cannot do today, and how structured prompting can enable them to participate in larger

software engineering efforts. The findings suggest that prompt-driven development may become a practical methodology for accelerating ecosystem growth in emerging languages, especially when paired with careful human oversight.

## About the Ring Programming Language

Ring is an innovative, multi-paradigm programming language designed to make software development simpler,

more expressive, and more accessible. Created with a focus on natural language programming, readability, and rapid application development, Ring supports procedural, object-oriented, functional, declarative, and event-driven styles within a unified environment. Its lightweight architecture and straightforward syntax make it suitable for education, research, and real-world application development alike. Ring powers tools such as PWCT2 (Programming Without Coding Technology 2.0), enabling developers to build applications using visual and natural language workflows. As an emerging language with a growing ecosystem, Ring continues to attract developers interested in flexible design, human-centric programming, and experimentation with new software engineering methodologies.

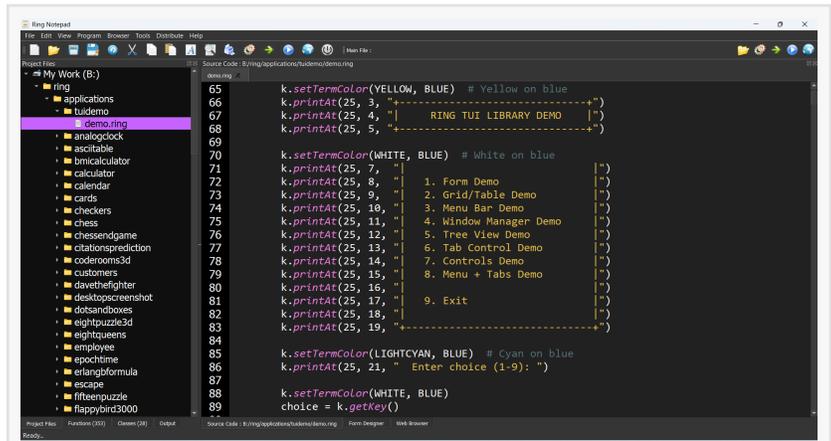
## About Programming Without Coding Technology 2.0 (PWCT2)

Programming Without Coding Technology 2.0 (PWCT2) is a next-generation visual programming environment designed to make software development accessible to a wider audience by eliminating the need to write code manually. PWCT2 enables developers, students, and domain experts to build applications through structured visual steps, the time dimension, and intuitive design patterns. Built on top of the Ring programming language, PWCT2 supports rapid prototyping, educational use, the creation of complex systems without traditional coding expertise, and the ability to import and export Ring code. With its extensible architecture and support for emerging frameworks—such as the new TUI system generated through prompt-driven development—PWCT2 continues to advance the vision of empowering users to create software through clear thinking rather than syntax.

Ring Team

Ring (free open-source project)

[email us here](#)

A screenshot of the Ring Notepad application. The window title is "Ring Notepad". The interface shows a file explorer on the left with a tree view containing folders like "ring", "applications", "tuledemo", "demo.ring", "analogclock", "asciitable", "bmiccalculator", "calculator", "calendar", "cards", "checkers", "chess", "chessendgame", "clatolansprediction", "codenrooms3d", "customers", "davethefighter", "desktopscreenshot", "dotsandboxes", "eightpuzzle3d", "eightqueens", "employee", "epochtime", "orlangformula", "escape", "fifteenpuzzle", and "flappybird3000". The main editor area displays source code for a TUI framework demo. The code includes comments for setting terminal colors (YELLOW, BLUE, WHITE, LIGHTCYAN) and a menu of options: 1. Form Demo, 2. Grid/Table Demo, 3. Menu Bar Demo, 4. Window Manager Demo, 5. Tree View Demo, 6. Tab Control Demo, 7. Controls Demo, 8. Menu + Tabs Demo, 9. Exit. The code uses functions like k.setTermColor, k.printAt, and k.getKey().

Ring Notepad - TUI framework demo (Source Code)

This press release can be viewed online at: <https://www.einpresswire.com/article/894917756>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire,

Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.