Gimlet Bounty Feedback Template

General Instructions

- Duplicate this document to fill in your responses: File → Make a Copy

- Ensure your document sharing settings allow "Anyone with the Link Can View" before submitting.

- Submissions must be original and at least 1,000 words. AI-generated content without meaningful human review will be disqualified.

- Attach screenshots, logs, or test repositories as applicable.

- Submit your feedback following the instructions provided in the bounty post.

Participant Information

- Name/GitHub Username: Pushkarm029

- Testing Date: 29 April 2025

- Operating System & Environment:

    - OS: Debian GNU/Linux 12 (bookworm),

    - VS Code Version: 1.96.3,

    - Rust Version: rustc 1.86.0 (05f9846f8 2025-03-31)

    - Solana CLI: solana-cli 2.1.21 (client:Agave)

Onboarding Feedback

Positive

What aspects of installing and setting up Gimlet were smooth or user-friendly?

- Fast Tooling: I ran `agave-ledger-tool -l .anchor/test-ledger accounts` and was genuinely impressed by the speed. It felt blazing fast, giving me all the account details almost instantly. That kind of responsiveness is fantastic for developer workflow, and this tool has definitely earned a permanent spot in my Solana dev stack.

Negative

What were the most difficult or frustrating parts of setting up and using Gimlet?

- Missing solana-lldb with Agave Client: The required debugger isn't included in standard Agave client installation path. Even after running `cargo-build-sbf --force-tools-install`, it remained missing, making Gimlet unusable out-of-box with Solana 2.1.21.
- Difficult Setup / High Friction: Getting the debugger running required significant troubleshooting due to environment issues and build target confusion, demanding deep knowledge of Solana's toolchain structure.

- Build Configuration Issues: Gimlet triggered specific errors: "Build error: error: package ID specification \NFT-Minting\ did not match any packages" when it should have targeted the nft program instead.

Opportunities

What could be improved in the installation or setup process?

- Simplify Setup: Provide a setup script to verify prerequisites and automatically configure VS Code, especially for different Solana distributions.
- Improve Agave Compatibility: Detect Agave client usage, provide compatibility warnings, and allow configuration of custom lldb path (`looking in ~/.cache/solana/.../platform-tools/llvm/bin/solana-lldb`).
- Document Version Support: Explicitly document compatibility with newer Solana distributions like "Agave Solana client (v2.1.21 tested)".
- Enhance Tool UX: For tools like agave-ledger-tool accounts, don't just show "Unable to access ledger path 'ledger': No such file or directory" - suggest alternatives like the test ledger in .anchor/test-ledger.

General Product Feedback

Positive

Which features worked well or were easy to use?

- NA

Negative

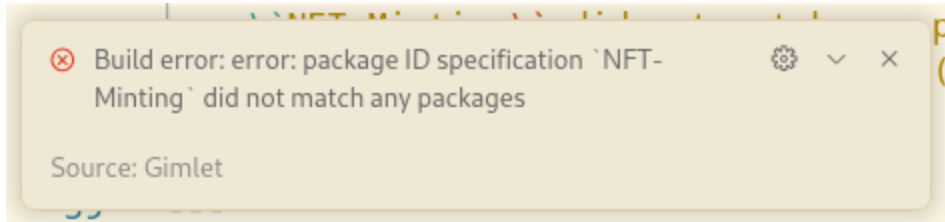**Which aspects of the product were difficult to use or had issues?**

- Build Target Confusion: Gimlet tries to build the wrong package - it targeted the workspace root (NFT-Minting) instead of the actual program (nft), triggering errors that blocked debugging.

- Error Message Clarity: When build errors occur, Gimlet shows technical messages like "package ID specification did not match any packages" without explaining the underlying issue in user-friendly terms.

- Workaround Complexity: To bypass these issues, I had to use complex workarounds such as opening program subdirectories in separate VS Code windows and manually copying build artifacts.

Opportunities

What improvements or new features would enhance the product experience?

- Smarter Project Detection: Gimlet should automatically detect the correct Anchor program package from Anchor.toml instead of defaulting to the workspace directory name.

- Better Error Handling: When dependencies like solana-lldb are missing, Gimlet should explicitly explain what's missing and how to fix it rather than failing silently.

- Simplified Setup Process: Create a guided setup flow that verifies all required components are properly installed before attempting to start a debug session.

- Compatibility Warnings: Provide clear warnings when using toolchains that might cause issues (like Agave 2.1.21) and offer specific solutions.
- Screenshots/Logs:

This is the initial feedback based on setup and launch attempts. Further testing of breakpoint hits, variable inspection, etc., was blocked by these issues.

Bug Reports & Debugging Issues

Breakpoint Bugs

NA

Complex Anchor Debugging

NA

Additional Contributions

- GitHub Issues or Pull Requests
  - https://github.com/LimeChain/gimlet/issues/27

- ○ https://github.com/LimeChain/gimlet/issues/28

  - ○ https://github.com/LimeChain/gimlet/issues/29

  - ○ https://github.com/LimeChain/gimlet/issues/30
- Test Repository

  https://github.com/Pushkarm029/NFT-Minting
- Real Anchor Program Debugging

  (If you debugged a real-world Solana Anchor project, summarize your findings.)

  NA