Project Close-out Report for:
Full-feature open-source NFT Web Forge

Name of Project and Project URL on IdeaScale/Fund

- **Name:** Full-feature open-source NFT Web Forge
- **URL**: Project on IdeaScale
- **Project Number ID:** 1300105
- **Name of Project Manager:** Roman Majovsky
- **Date Project Started:** Jan 20, 2025
- **Date Project Completed:** June 12, 2025

List of Challenge KPIs and How the Project Addressed Them

Challenge KPIs Addressed:

1. **Decentralization:** Enabled fully decentralized hosting via IPFS and blockchain-based NFT minting.
2. **Open Source Development:** Released all code and smart contracts under the MIT license on GitHub.
3. **User Empowerment:** Delivered a tool that simplifies the NFT creation process for non-technical users.
4. **Reusability for Developers:** Modular architecture with mock support and documentation for easy integration or extension.

List of Project KPIs and How the Project Addressed Them

Key Project KPIs Addressed:

1. **Functional Tool:** Deployed a working web-based NFT minting application at https://nft-forge.wingriders.com
2. **Custom Metadata Support:** Allowed creators to define collection-specific fields and validate metadata integrity.
3. **IPFS Integration:** Uploaded and pinned NFT images using real or mock IPFS endpoints.
4. **Community Impact**: Shared updates via Twitter and Discord, with posts reaching over 100 interactions. The tool is publicly accessible and fully usable by the community.
5. **Community Feedback:** A user survey was conducted and distributed via Discord, Telegram, and YouTube to gather insights from early users and inform future improvements.
6. **Documentation:** Provided architecture, frontend, and testing documentation in GitHub.

Key Achievements

- Built a full-featured open-source NFT minting dApp using Next.js and TypeScript.
- Integrated with Eternl, Lace, NuFi, and Typhon wallets via CIP-30.
- Streamlined bulk image upload, and metadata input into a single UI.
- Added metadata validation, duplicate detection, and error handling at every stage.
- Published complete documentation with test coverage and environment configs.
- Integrated NFT Web Forge into the WingRiders launchpad interface, where it is actively used during NFT collection setup.

Key Learnings

- Simplified deployment by combining frontend, backend, and IPFS handling in one unified Next.js application.
- Clear documentation and structure support easier onboarding for new contributors.
- No need for centralized services when browser-based tools and decentralized storage are properly integrated.

Next Steps for the Product or Service Developed

- Extend wallet support.
- Extend support for other metadata standards.
- Enable tighter integration with marketplaces.
- Continue community engagement and encourage adoption by other Cardano NFT platforms.

Final Thoughts / Comments

NFT Web Forge is built to lower the barrier for NFT creators on Cardano. As an open-source project, it's not just a tool, but a foundation others can build on.

We thank the Catalyst community for their support, and we look forward to continued growth and contributions.

Links to Other Relevant Project Sources or Documents

- GitHub Repository: https://github.com/WingRiders/nft-forge
- Architecture: https://github.com/WingRiders/nft-forge/blob/main/docs/architecture.md
- Frontend Design: https://github.com/WingRiders/nft-forge/blob/main/docs/frontend-design.md
- Test Coverage: https://github.com/WingRiders/nft-forge/blob/main/docs/tests.md
- NFT Forge App: https://nft-forge.wingriders.com
- NFT Forge App: https://nft-forge.wingriders.com
- Survey link: https://forms.gle/8rJQ4oKQ1tK47zbA7

Link to Close-out Video

- https://www.youtube.com/watch?v=oJGddJe5R5s