

Project Catalyst Closeout Report

Name of project and Project URL on IdeaScale/Fund:

OpShin Bug Bountys - Squashing Bugs in Python Smart Contracts

<https://milestones.projectcatalyst.io/projects/1100219>

<https://projectcatalyst.io/funds/11/cardano-open-developers/opshin-bug-bountys-squashing-bugs-in-python-smart-contracts-233e9>

Your Project Number: 1100219

Name of project manager: Niels Mündler aka nielstron

Date project started: Mar 11 2024

Date project completed: August 21 2024

List of challenge KPIs and how the project addressed them:

- The project lead to increased developer satisfaction and simpler onboarding into the ecosystem, i.e. through additional utilities when writing smart contracts and an easy-to-use online playground to build and deploy smart contracts.

List of project KPIs and how the project addressed them

- The project lead to a significant increase in involved developers with the code base. Throughout the project we saw a 100% increase in total involved developers.
- The project lead to the development of a number of extremely useful features, such as class methods and an online playground for easy onboarding.
- Long standing (>6 months) open issues in the code base were successfully resolved.

Key achievements (in particular around collaboration and engagement)

- High Traction project update Tweets
- Collaboration with community developers in reviewing and discussing ideas for the OpShin language
- Major improvements to the programming language

Key learnings

- Some issues require significantly more effort to be resolved than others. We were able to incorporate feedback on this from the developers as outlined in our project report.

- Bringing new developers and thus new perspectives into the project can lead to resolving issues that seem too daunting or complex from the perspective of a longer member. In fact several high bounty solutions turned out to have elegant solutions that were discovered by the new developers.
- One “issue” with this project was that a majority of the funds got only paid out after the final milestone. Usually 80% of the next milestone get paid out in advance. Especially in this scheme, where the last step involved pricing out new bug bounties, this could have led to the situation that all bounties are claimed before an approval of the last milestone is reached - i.e. leading to the project owner not being able to pay out the claimed bounties. Fortunately this did not happen at this time but next time we will have to ensure that not too many funds, and in particular no external payments, are bound in the final milestone.

Next steps for the product or service developed

- The programming language will be further developed towards an alpha 1.0.0 release
- An audit of the code base is upcoming to ensure properness of the developed smart contracts
- Further features among the many open issues on the codebase will be tackled by follow up grants
- At the end of this Project some Bounties remain unclaimed (by design of the challenge, as the last step includes pricing out bounties). The Bug Bounty program will remain open indefinitely until all bounties have been claimed/all funds have been paid out. If certain bounties are not claimed because they are considered too complex for the allocated amount, the amount may be adjusted or the fund moved to new/other issues open on the repository.

Final thoughts/comments

- We are deeply grateful for Project Catalyst to enable this amazing development progress on a project close to our hearts. This project truly brings a lot of value to the space and this will surely be felt by many.

Links to other relevant project sources or documents.

- <https://github.com/OpShin>
- <https://opshin.dev>

Link to Close out video - must be either YouTube or Vimeo link only

- <https://youtu.be/UkBtzJeUKvA>