



Milestone Completion Report: Implementation of Running Jupyter Notebook on Demeter.run

1. Introduction

This report presents the successful completion of the milestone objective, which focused on implementing a running Jupyter Notebook on the Demeter.run platform. The Jupyter Notebook is now accessible through a cloud-based environment, providing users with a convenient and feature-rich tool for interacting with the Cardano blockchain.

2. Project Overview

The goal of this milestone was to establish a functional Jupyter Notebook environment within the Demeter.run platform. By achieving this objective, developers and researchers gain access to a powerful cloud-based workspace for working with the Cardano blockchain. This environment eliminates the need for local installations and facilitates seamless collaboration and experimentation.

3. Milestone Completion

We are pleased to announce the successful completion of the milestone objective. The following tasks have been accomplished:

3.1 Implementation of Jupyter Notebook

A fully functional Jupyter Notebook has been implemented on the Demeter.run platform. This cloud-based environment provides a familiar interface and the flexibility to execute Python code, create interactive documents, and perform data analysis related to the Cardano blockchain.

3.2 Cloud-based Accessibility

The Jupyter Notebook is now accessible through the cloud, enabling users to access and work with the notebook from any device with an internet connection. This cloud-based accessibility eliminates the need for local installations and ensures seamless collaboration and availability.



3.3 Demeter.run Platform Integration

The Jupyter Notebook has been integrated into the Demeter.run platform, which provides a robust infrastructure to support its functionality. Leveraging the platform's services and features, users can benefit from optimized performance, security, and scalability while working with the Cardano blockchain.

3.4 Technical overview of the Integration

We successfully expanded the capabilities of the VScode server by integrating Jupyter Notebook functionalities. We accomplished this by installing both the bash and python kernels, along with the Jupyter VSCode extension.

4. Next Steps

Having accomplished the milestone objective, we will now proceed with the following tasks:

- Conduct extensive testing and gather user feedback to identify any issues or areas for improvement in the Jupyter Notebook environment.
- Enhance the user interface and experience of the Jupyter Notebook to ensure ease of use and intuitive interaction with the Cardano blockchain.
- Continuously monitor the performance and reliability of the Jupyter Notebook on the Demeter.run platform, making necessary optimizations and improvements as required.
- Development of a Starter Kit that serves as an exemplary guide for consuming Singularity Net APIs.

5. Presentation of Milestone Completion

As evidence of the milestone completion, we have prepared a video demonstration showcasing the running Jupyter Notebook on the Demeter.run platform. The video provides an overview of the notebook's features, demonstrates its accessibility through the cloud, and highlights the integration with the Cardano blockchain. You can access the video presentation

<https://youtu.be/fy0FgXemFLM>

6. Conclusion

The successful implementation of the running Jupyter Notebook on the Demeter.run platform marks a significant milestone in the project. Users can now leverage the cloud-based environment to seamlessly interact with the Cardano blockchain, eliminating the need for local installations and providing a convenient workspace for development and research. We remain committed to further enhancing the Jupyter Notebook integration, gathering user feedback, and ensuring a robust and user-friendly experience for the Cardano community.