DLT5001 Applied Project Proposal

Title of applied project: Aave Protocol Tokenomics and Smart Contract Analysis

Date: 03/04/2023

STUDENT DETAILS

Name & Surname: Karsten Guenther
Course & Year: Master of Science in Blockchain and Distributed Ledger Technologies (ICT)
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COMPANY/INSTITUTE DETAILS

Company/Institute Name: Hash Data
Address: 238 North Church Street
                        George Town, Cayman Islands
Mentor: Daniel Botha
Position: CTO
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1. Overview of the tasks/activities that will be carried out by the student throughout the placement.

An analysis of the Aave protocol needs to be completed. The end goal is to understand Aave:
- *Understand the tokenomics associated with its v1 and v2 contracts,*
- *How does Aave work,*
- *Smart contract mapping for v1 and v2,*
- *Identifying all relevant tokenomics functionality and what functions are used with in the smart contracts,*
- *Map out all data collection functions and on chain data needed to perform any calculations require.*

With understanding the smart contracts and the tokenomics of the protocol we can improve all data collection for transactions interacting with Aave

2. How will the student's performance and success be measured throughout this placement? (*To be completed by the owner/manager/supervisor/mentor*).
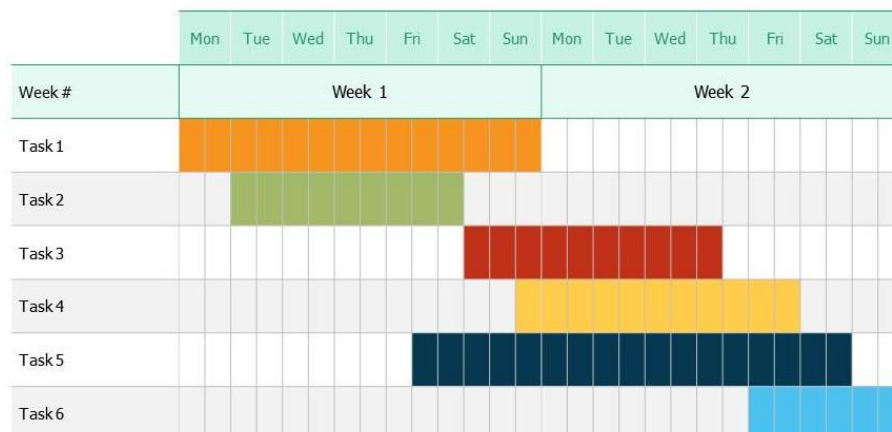
The student will be writing a report with on Aave and all the above-mentioned points. The student and mentor will have calls going through the document after a section was completed to make sure the understanding was correct and explain a bit more of the tokenomics and overall blockchain functionality to them. The mentor will measure the students understanding through the document and the calls between them and will be satisfied with their performance when their understanding and smart contract mappings have been completed.

3. Provide concrete deliverables that will be produced as part of the project. e.g. reports, presentations, software implementation.
   - Report:
     The report will be assessed on several deliverables related to Aave's tokenomics, smart contract mapping, and data collection functions. Firstly, it should demonstrate a clear understanding of the tokenomics associated with both the v1 and v2 contracts of Aave. Additionally, the report should explain how Aave works, including the relevant tokenomics functionality and the functions used within the smart contracts. Furthermore, it should provide a comprehensive smart contract mapping for both v1 and v2, identifying all relevant tokenomics functionality and how it's implemented in the smart contracts. Lastly, the report should map out all data collection functions and on-chain data needed to perform any calculations required for the analysis. By meeting these deliverables, the report will provide a thorough assessment of Aave's tokenomics, functionality, and smart contract design, offering valuable insights for stakeholders and investors alike.

4. Please attach a plan of how you plan on working on this project throughout your placement.

Week #	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
	Week 1							Week 2						
Task 1	■	■	■	■	■	■	■							
Task 2		■	■	■	■	■	■							
Task 3						■	■	■	■	■	■			
Task 4								■	■	■	■	■		
Task 5						■	■	■	■	■	■	■	■	
Task 6												■	■	■

Week 1:

Task 1: Conduct research on Aave's v1 and v2 contracts, and understand their tokenomics.
Task 2: Read documentation and understand how Aave works.
Task 3: Identify relevant tokenomics functionality and its implementation in smart contracts.
Task 5: Begin mapping out the smart contracts for v1 and v2.

Week 2:

Task 5: Complete smart contract mapping for v1 and v2, and identify all relevant tokenomics functionality.
Task 4: Map out all data collection functions and on-chain data required for any calculations needed.
Task 6: Review and refine the report to ensure that all deliverables are met.
Task 6: Finalize the report and submit it for assessment.

After the placement, the mentor will need to write a report highlighting how the student performed and met the evaluation criteria set out.

The student will also need to write a detailed report which documents the work they have undertaken including all activities and tasks. Any deliverables produced during the project should also be provided where possible.

Student's Signature: .... Date: 03/04/2023

Mentor's Signature: .... Date: 03/04/2023