Weekly Milestone Meeting Agenda

Week II

Date/Time: June 9, 10:00-11:00 A.M. Durham
Location: https://duke.zoom.us/j/95799139363
Next meeting: June 9, 10:00-11:00 A.M. Durham
Participants: Directory
Agenda prepared by: Luyao Zhang (Host)
Minutes by: Derrick Adam (Moderator)
Meeting Goal:

1. Communicate the milestones
2. Sync for moving forward
3. Team building and Q&A

Meeting Timeline:

Time	Discussion Topic	Presenter/Facilitator
10:00-10:10	Project milestone summary	Derrick Adam
10:10-10:30	UG researcher milestone presentation	Dylan Paul, Urjit Banerjee, Oum Lahade, Malika Rawal
10:30-10:50	Comments, Suggestion, and Expectation for upcoming weeks	Kartik Nayak and Fan Zhang, Yulin Liu, Luyao Zhang,
10:50-11:00	Q&A	All

Action Items Amendments:

1. Derrick sends out meeting minutes within 48 hours after the meeting ends.
2. All meeting recordings shall have been consented to by participants and not shared out of the presented group without further consents.
3. The guideline for asking questions:
    a. **Be resourceful**: before asking questions, first acquiring information via the searching engine(Google, YouTube, etc.), developer forum, and libraries, etc.
    b. **Work collaboratively**: conduct peer assessment for each other's work
    c. **Independent Thinker**: reflect and reason on your own first
    d. **Ask the right person**: ask IT about computer problems, ask layers about legal issues, etc.
    e. **Ask Efficiently**: collect thoughtful questions to be answered at our weekly milestone meetings.

4. This week's submissions are in Shared Google Docs and Slides (for the convenience of suggesting and commenting) but a notification of completion must be made by email.

Week I

Date/Time: June 2, 10:00-11:00 A.M. Durham
Location: https://duke.zoom.us/j/91369404327
Next meeting: June 9, 10:00-11:00 A.M. Durham
Participants: Directory
Agenda prepared by: Luyao Zhang (Host)
Minutes by: Derrick Adam (Moderator)
Meeting Goal:

4. Communicate the Project Expectations
5. Discuss Division of Labor and Weekly Milestones
6. Team building and Q&A

Meeting Timeline:

Time	Discussion Topic	Presenter/Facilitator
10:00-10:10	general project briefing and team introduction	Luyao Zhang
10:10-10:30	communicate project expectations to reach consensus	Yulin Liu, Kartik Nayak and Fan Zhang
10:30-10:40	graduate mentoring and weekly recitation introductions	Derrick Adam
10:40-11:00	researcher Q&A	Dylan Paul, Urjit Banerjee, Oum Lahade, Malika Rawal

Action Items

1. Derrick organizes weekly recitation meetings.
2. Project leads acquire resources and organize follow-up comments.
3. Derrick interviews each project lead (Luyao, Kartik, Fan, and Yulin) and collects weekly comments. Derrick compiles the comments with polished meeting minutes and sends them to all.
4. UG research team submit weekly milestones and questions by Monday 11:00 P.M. Durham to Derrick before the next milestone meeting

5. Derrick collects the UG research team submissions and emails a weekly milestone report to project leads by Tuesday 11:00 P.M. Durham before the next milestone meeting.
6. Derrick (host) and the UG research team be ready to present weekly milestones; Luyao (host) and other project leads be ready to advise moving forward and answer questions at the next meeting.
7. Both the project leads, the graduate mentor, and UG researchers react actively to AMA interviews.

Appendix: Weekly Milestone Resources

1. Project Briefings: Milestones, Final Deliverables, and Other Contributions

1) **Innovate** Deploy DeFi Apps (Canister) on the Internet Computer with the key features of specified Defi Apps (Smart Contract) that exist on the Ethereum Blockchain.
   - ☐ Final deliverables: video recordings and slides of prototype demonstrations
   - ☐ Milestone deliverables: video recordings and slides of step-by-step developing instructions
2) **Research**: Conduct research to compare the performance of the DeFi Apps newly developed on the Internet Computer and its analogy on the Ethereum Blockchain
   - ☐ Final deliverables: research reports and research proposals seeking support for a continuing project
   - ☐ Milestone deliverables: presentations and reports that cover the following five facets:
     - research background (literature review)
     - research questions (essays on why important and why not studied before)
     - research methods (documents of modeling, simulating, experimenting, or analyzing methods)
     - results (reports on pivot results)
     - intellectual merits and practical impacts (arguments on contribution to the literature of economics and computer science and to real-world practices.)
3) Other contributions:
   - ☐ AMA with DFINITY engineers
   - ☐ Open Education Resource Publications: innovate/research on the Internet Computer
   - ☐ Presentation at SciEcon Seminars/Symposiums

- ☐ Potential re-appointment on continuing projects and co-authorship on publications

Note: the research must be asking fundamental questions of relevancy to both Economist and Computer Scientist at the frontiers

Questions:

1. To Kartik and Fan: what questions are interesting to Computer Scientists? Which aspects are important to research? What features to compare? How?
2. To Luyao and Yulin: what questions are interesting to Economists? Which aspects are important to research? What features to compare? How?

2. Divisions of Labor

Project A

Specified DeFi Apps: Liquity
Economic Documents: https://docs.liquity.org/faq/general
Technical Resources: https://docs.liquity.org/documentation/resources

Staffing:

Senior Researcher: Urjit Banerjee
Junior Researcher: Oum Lahade
Research Support: William Zhao and Elliot Ha

Project B

Specified DeFi Apps: Compound and Ave
Compound: https://compound.finance/
Aave: https://aave.com/

Staffing:

Senior Researcher: Dylan Paul
Junior Researcher: Malika Rawal
Research Support: Tianyu Wu and Saad Lahrichi

Questions to Yulin: Key features that you recommend starting with for both projects?
Notes:
For Project A: No dividend tokens, i.e. LQTY, for the first version; Replace Ether by ICP and replace LUSD by SDR

- Users could pledge ICP tokens as collateral and borrow SDR tokens
- SDR tokens are pegged to Cycles (stability mechanism needs to be worked out)
- Users could withdraw their ICP tokens by paying back their debts
- No dividend tokens, i.e. LQTY, for the first version

For Project B: start with a single asset Cycle and a single collateral ICP

- Lenders could deposit Cycle tokens and earn interest
- Borrowers could pledge ICP tokens as collateral and borrow Cycle tokens
- If the collateral ratio (=value of ICP/value of the debt) falls below 110%, the ICP collateral is automatically converted to Cycles to pay back their loans

- Both teams start with replication and could innovate later by adding more features to their products
- The two projects could interact at some point, e.g. users could deposit in DB2 the SDR tokens borrowed from DB1

3. Weekly Milestones

Week 1

Innovate:

☐ An Absolute Beginner's Guide for Innovate on Internet Computer:
Step-by-step instruction/demonstration slides submitted in Sakai and videos recorded and uploaded to duke Wapwire library. (Specify the operating system and version for your instructions: Mac/Windows/Linux)

- ✧ Set up the development environment
- ✧ Prepare the building blocks: ICP tokens and cycles
- ✧ Leverage the toolbox: DFINITY Canister SDK
- ✧ Deploy the first application
- ✧ Share how the developer experience connects to or differs from that on a different platform such as Ethereum Blockchain, Webservers, etc.
- ✧ Share where you get stuck, how you remove obstacles and tricks for fast progress.

References: https://sdk.dfinity.org/docs/quickstart/quickstart-intro.html
Hint: Install Linux subsystem and Ubuntu for windows tutorial

Research:

☐ Literature Review for Economist, Computer Scientist, and Practitioners submitted in Sakai:

- ✧ Literature review for DeFi in general and your specified application in particular.
- ✧ Reference includes white papers, industry reports, websites, medium articles, conference papers, data, GitHub, third-party evaluations, etc.

- ✧ Literature review for your specified application should answer the following questions:
  - **Motivation**: What problem does the specified DeFi App intend to solve?
  - **Methods and Results**: How does it solve the problem? What are the key mechanisms? Is the problem solved?
  - **Business Models**: How does it work to create business/social value for stakeholders?
- ✧ Please include both in-text citation and bibliographies in Chicago author-date style. (Hint: https://www.mybib.com/)

Week 2:

Innovate:

- ☐ The pipeline, potential obstacles, and weekly milestone plan to deploy the specified application on the Internet Computer in four weeks: The pipeline should be able to complete the deployment with the user experience of key features.
  - ✧ Plan ahead: You must conduct tests to envision potential obstacles
  - ✧ The weekly plan should include
    - ◆ Plan to acquire necessary resources
    - ◆ Expert to consult for advice
    - ◆ Expected obstacles and solutions
  - ✧ Polish Week 1 milestones
  - ✧ Integrate with the polished Week 1 milestone and submit to Google Slides here.

Research:

- ☐ Essay on Research Question:
  - ✧ Identify a relevant research question that is interesting to both Computer scientists, economists, and practitioners.
  - ✧ Elaborate on the importance and originality of the research question.
  - ✧ Please include both in-text citation and bibliographies in Chicago author-date style. (Hint: https://www.mybib.com/) (Literature from both Econ and Computer Science must be included) Please search literature in Google Scholar and Duke Libaries.
  - ✧ Polish Week 1 Milestones
  - ✧ Integrate with the polished Week 1 milestone and submit to Google Doc here.

References:

Four Internet Computer Start-up Tutorial Videos:
https://drive.google.com/drive/folders/1PDaBXAJuLq0VgYp0KvCCEndpJjtxrSIm?usp=sharing
https://dfinity.org/developers/
Internet Computer Association Course Release: https://internetcomputer.org/education
Focus: https://github.com/DFINITY-Education/blockchain-and-cryptocurrency
More videos on the DFINITY YouTube channel:
https://www.youtube.com/c/DFINITY/videos
Join the Internet Computer Forum: https://forum.dfinity.org/categories
GitHub:
https://github.com/dfinity/ic
https://github.com/dfnfan/awesome-DFINITY
https://github.com/dfinity/awesome-dfinity
Canisters Developed on the Internet Computer:
Decentralized Tiktok: https://github.com/dfinity/cancan
Decentralized LinkedIn: https://github.com/dfinity/linkedup
Decentralized Whatsapp: https://www.youtube.com/watch?v=PjMIY2w480I
Decentralized Reddit

Blockchain Data:

CoinmarketCap	https://coinmarketcap.com/tokens/
Coinmetrics	https://coinmetrics.io/
Coingecko	https://www.coingecko.com/en
Etherscan	https://cn.etherscan.com/
Bitfinex	https://www.bitfinex.com/
Messari	https://messari.io/
Glassnode	https://glassnode.com/