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1 Executive Summary –November 2025

During the month of November 2025, I continued facilitating two learner groups – Group G010 and Group G017 –with a focus on deepening their practical skills and ensuring consistent progress in their Haskell and Plutus development journey.

1.1 Group G010

All learners in Group G010 successfully completed their Haskell practical tasks for token minting. Building on this momentum, the focus for November shifted entirely to collaborative Plutus smart contract development.

Throughout the month, we worked together on analyzing, writing, and testing different types of Plutus smart contracts. Learners engaged in group walkthroughs, debugging sessions, and discussions around smart contract architecture and best practices. This collaborative environment strengthened their understanding of real-world blockchain application development and prepared them for more advanced project work.

1.2 Group G017 (Pretoria Campus)

For Group G017, November coincided with their final exam period at college, which required a more flexible and supportive approach to facilitation. As a result, the sessions focused on:

- Monitoring their progress on Haskell practical tasks
- Providing individual assistance based on each learner's challenges
- Ensuring that learners continued advancing through their exercises despite exam pressure
- Verifying and guiding them in correctly completing their logbooks

Most learners reached up to Chapter 9 in their Haskell curriculum, showing consistent development and commitment despite their academic workload.

1.3 Overall Summary

November was a productive month for both groups. Group G010 advanced into hands-on Plutus contract development after completing their Haskell token minting tasks, while Group G017 demonstrated steady individual progress during their exam period. Both groups remain on track in their respective learning pathways, with growing confidence and capability in blockchain development using Haskell and Plutus.

2 Group G010(20:00-21:00):

2.1 Attendees

- Makhaya Mulalo
- Ieseba Seema
- Sambo Katlego
- Malwela Adivhaho

2.2 Activities Delivered –November 2025 (Group G010)

2.2.1 Plutus Smart Contract Development Sessions

After all learners completed their Haskell token-minting practical tasks, the group moved on to Plutus smart contract development. During these sessions, I demonstrated how other developers structure and build their smart contracts, allowing learners to compare different approaches. Learners then replicated and practiced the same techniques on their own machines to strengthen their understanding.

Facilitated collaborative coding sessions where learners worked on the same smart contract tasks side by side. They were encouraged to ask questions, share solutions, and discuss different ways of implementing contract logic. This team-based approach helped them learn from one another and build confidence.

2.2.2 Hands-On Assistance and Troubleshooting

Provided direct support whenever learners encountered errors or challenges in their smart contract work. This included guiding them through debugging steps, explaining why certain validation issues occur, and helping them correct mistakes in both Haskell and Plutus code.

2.2.3 Concept Reinforcement

Revisited important Haskell fundamentals that directly support Plutus development, ensuring that learners had the foundational skills needed to understand contract logic and validation behaviour.

2.2.4 Progress Tracking

Monitored the progress of all learners throughout the month and ensured continuity in their work. By the end of November, four consistent learners had progressed up

to Chapter 21, showing steady and committed advancement. Executive Summary – November 2025

During the month of November 2025, I continued facilitating two learner groups – Group G010 and Group G017 – with a focus on deepening their practical skills and ensuring consistent progress in their Haskell and Plutus development journey.

2.3 Attendance Summary

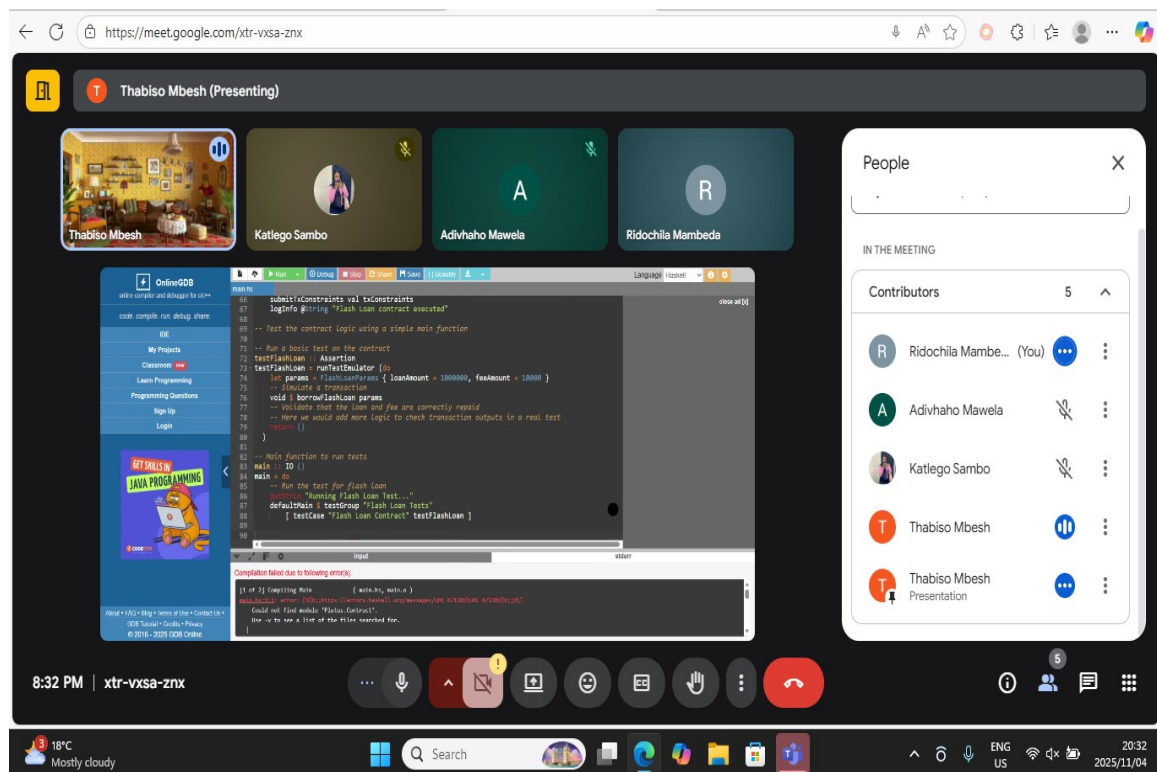
04 November

Attendees

- Mulalo,
- Katlego,
- Thabiso
- Adivhaho

Activity

collaborating on flash loan



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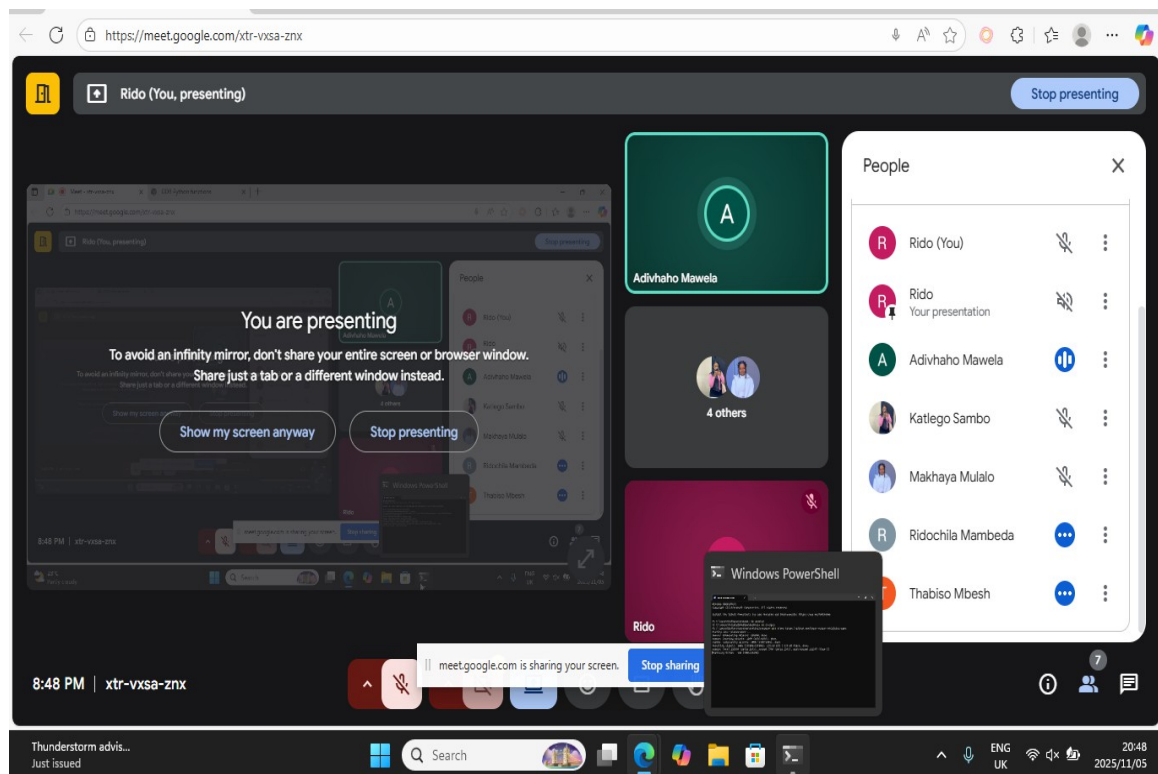
05 November

Attendees

- Ieseba,
- Mulalo,
- Katlego,
- Adivhaho

Activity:

Doing second smart contract Dao Governance



11 November

Attendees

- Ieseba,
- Mulalo,
- Katlego,
- Adivhaho

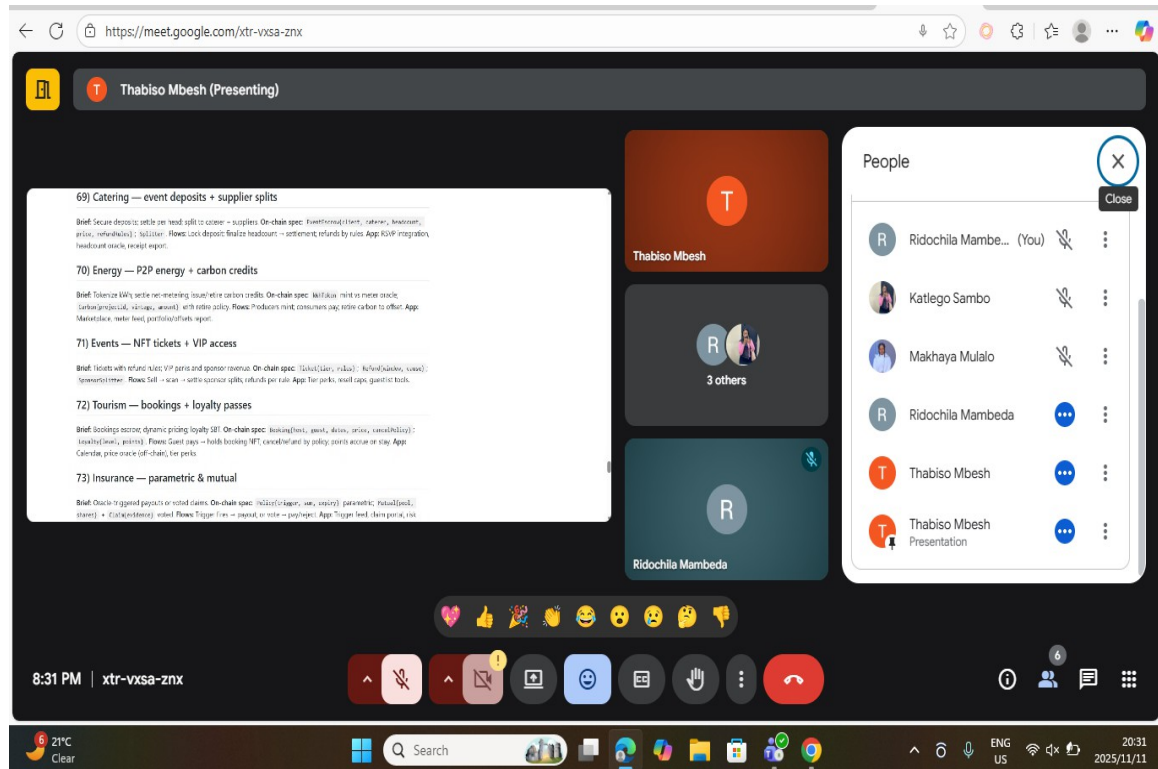
Activity:

7/24

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Still collaborating on Dao governance



12 November

Attendees

- Ieseba,
- Katlego,
- Adivhaho

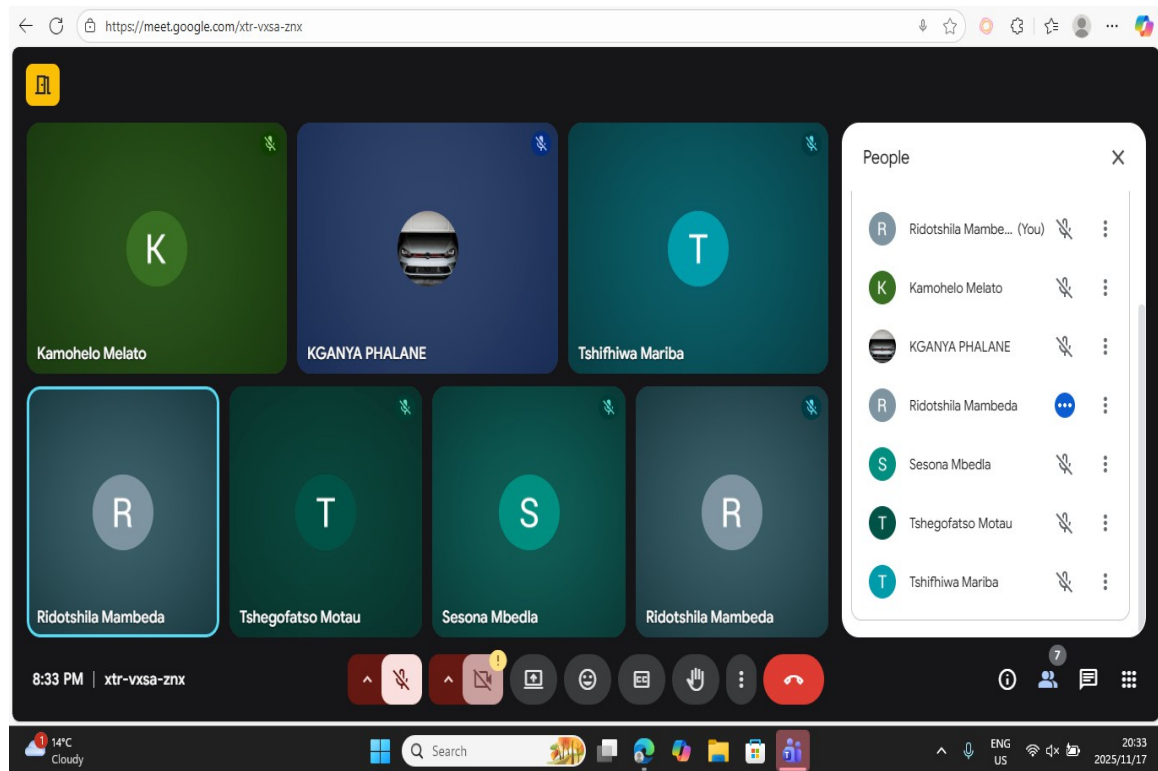
Activities:

Filling WIL logbooks and also assisting on some of the chapters the get stuck

8/24

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18 November

Attendees

- Ieseba,
- Katlego,
- Mulalo

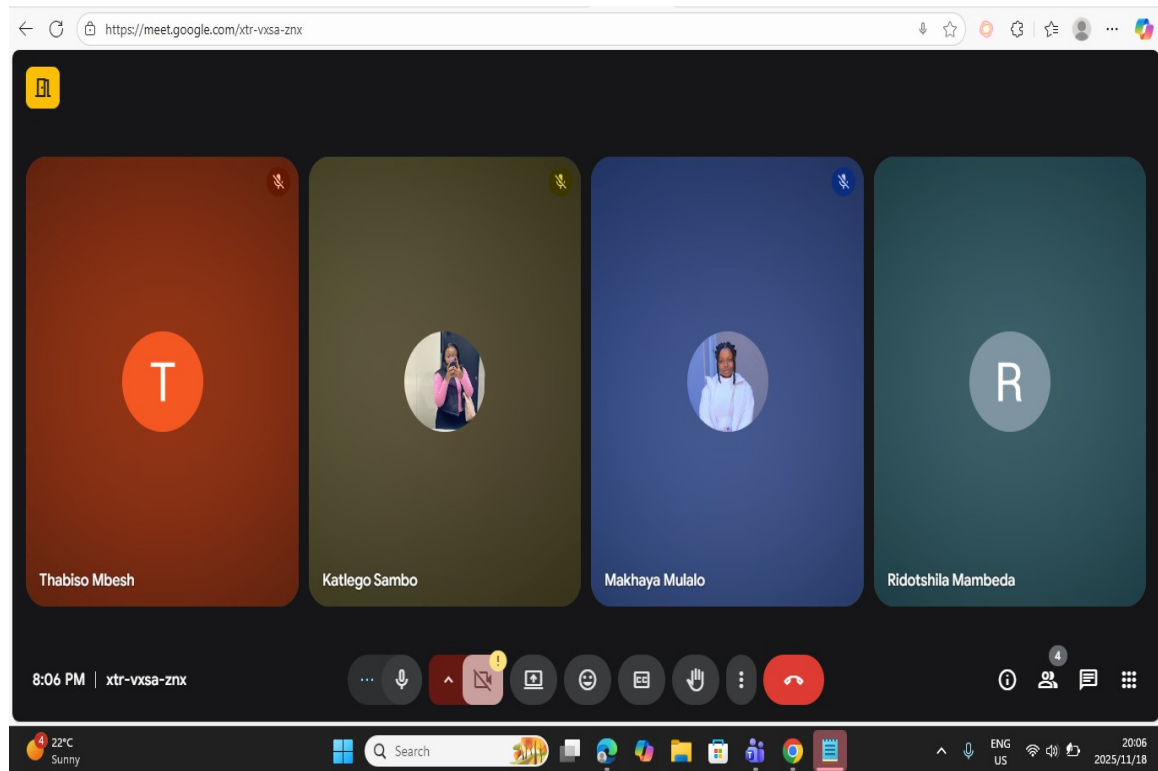
Activity:

Doing researches on other example of Smart contract and they choose what they are going to create

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25 November

Attendees

- Katlego,
- Adivhaho,
- Ieseba,

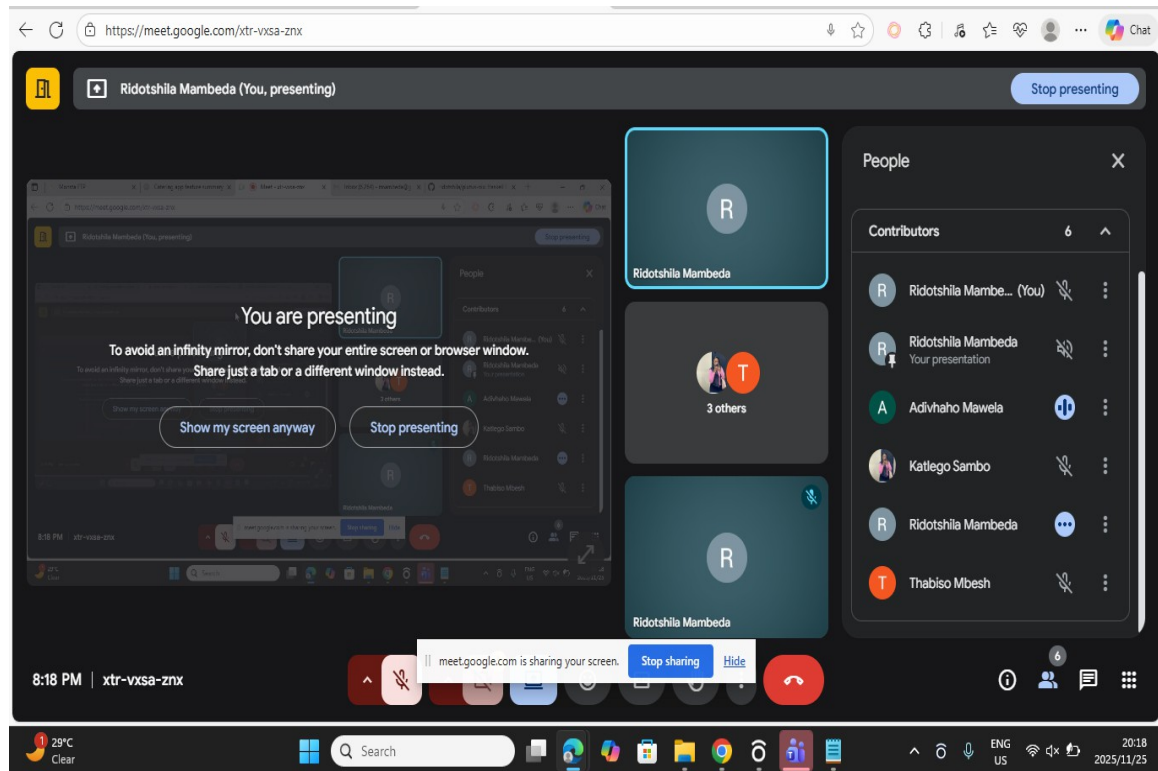
Activity:

Assisting with troubleshooting smart contracts for students

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26 November

Activity

Assisting with troubleshooting smart contracts for students

Attendees:

- Thabiso
- Katlego
- Adivhaho

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3.2 Activities Delivered –November 2025 (Group G010)

3.2.1 Progress Monitoring During Exam Period

Since the group was busy with their final college exams, facilitation focused on flexible check-ins to ensure learners remained on track with their Haskell practical tasks despite their academic workload.

3.2.2 Individual Support and Assistance

Worked with learners one-on-one to identify the specific areas where they were struggling in Haskell. Provided explanations, examples, and guidance tailored to each learner's challenges.

3.2.3 Practical Task Review

Reviewed learners' progress across the Haskell chapters and verified that their practical tasks were completed correctly and aligned with the curriculum requirements.

3.2.4 Logbook Guidance and Verification

Assisted learners in completing their logbooks correctly by checking entries, ensuring proper recording of learning activities, and helping them understand what information must be included.

3.2.5 Progress Advancement

Encouraged steady advancement through the material. By the end of the month, several learners had progressed up to Chapter 9, showing consistent effort despite the exam schedule.

period. Both groups remain on track in their respective learning pathways, with growing confidence and capability in blockchain development using Haskell and Plutus.

3.3 Attendance Summary

03 November

Attendees

- Sithebe Ntando
- Mariba Tshifhiwa
- Maleto kamogelo

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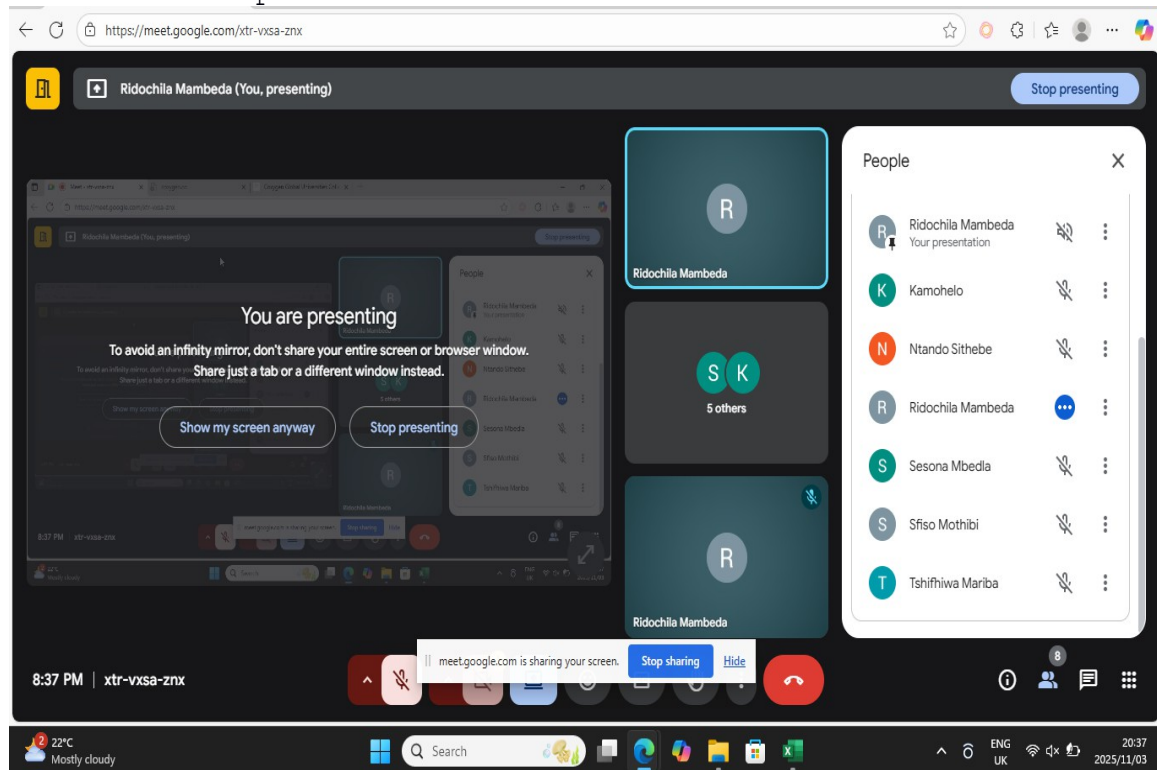
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- Mbedla Sesona
- Sifiso Mothibi

Activity:

haskell Plutus chapter 8



05 November

Attendees

- Sithebe
- Kamogelo
- Tshifhiwa

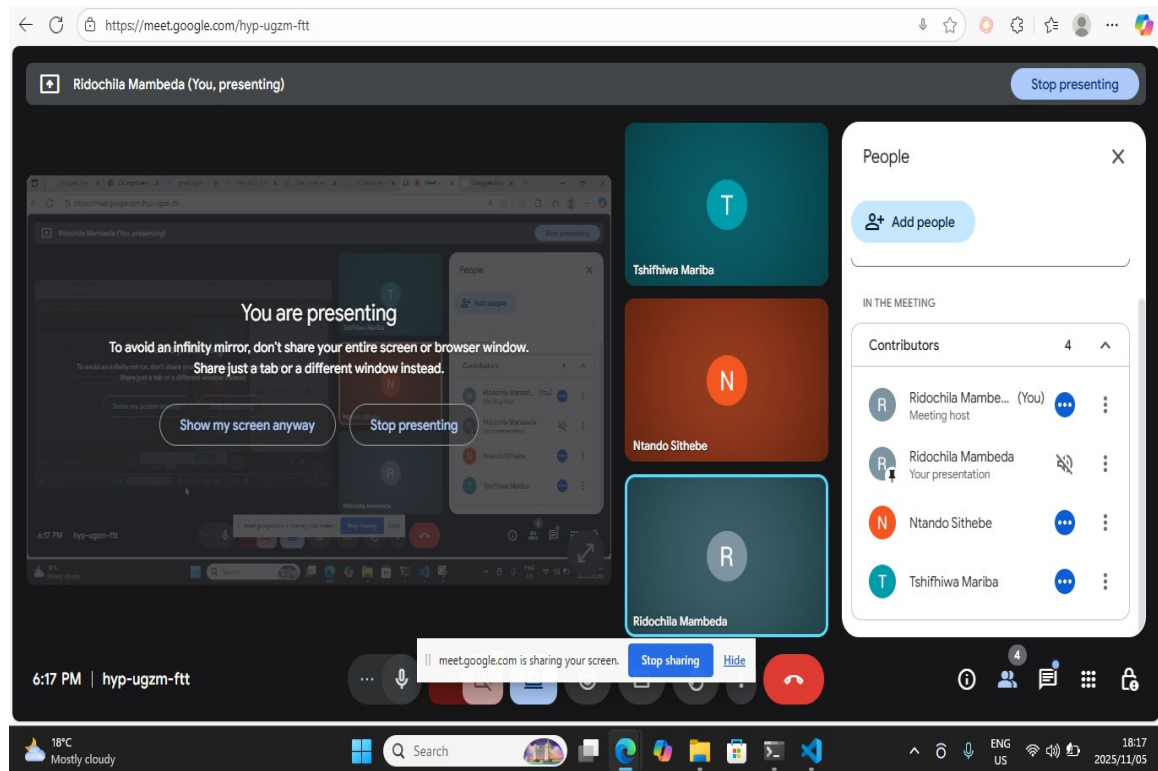
Activity

Assisting them with submissions

14/24

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15/24
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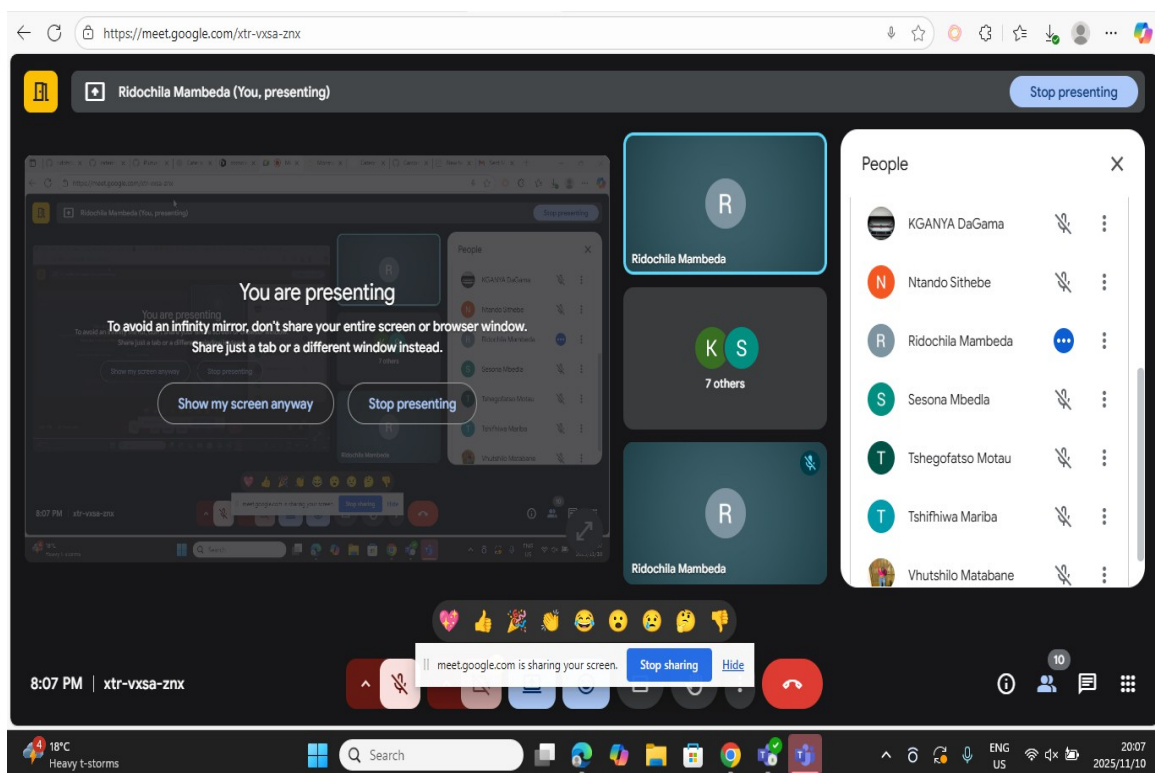
3.3.1 10 November

Attendees

- Sithebe
- Tshegofatso
- Sesona
- Kganya
- Tshifhiwa
- Vhutshilo

Activity:

I gave them an Example of Smart contract and ask them to create user interfaces



12 November

Attendees

- Sithebe
- Kamogelo

16/24

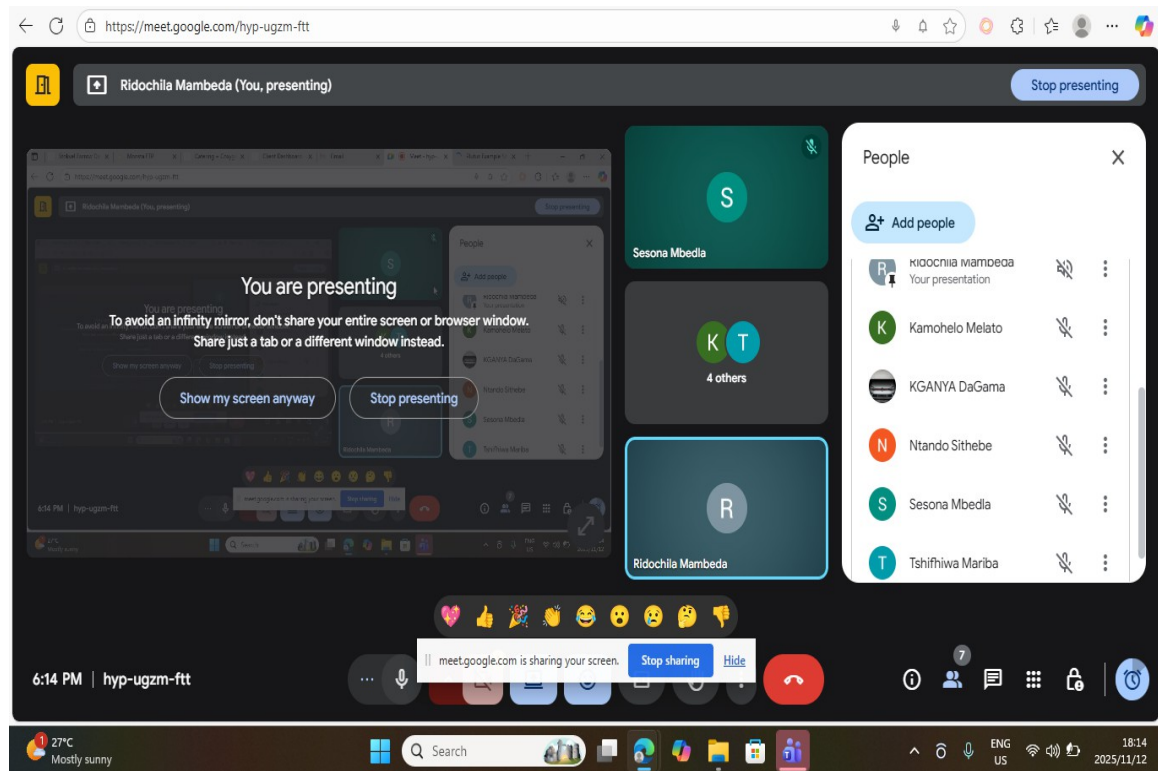
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- Sesona
- Tshifhiwa

Activity:

Filling WILL logbooks and also assisting on some of the chapters the get stuck



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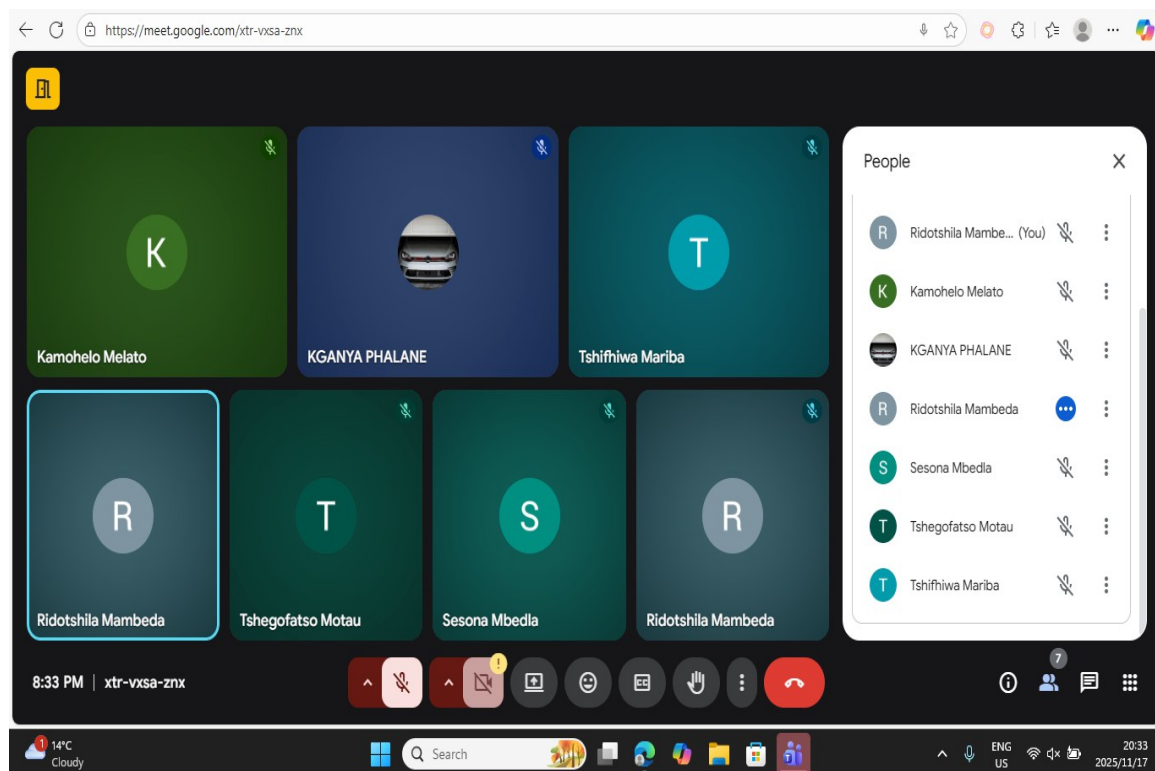
17 November

Attendees

- Tshifhiwa
- Kamogelo
- Tshegofatso
- Sesona
- Kganya

Activity:

Haskell plutus chapter 8 continues



24 November

Attendees:

- Tshegofatso
- Kamogelo
- Tshifhiwa

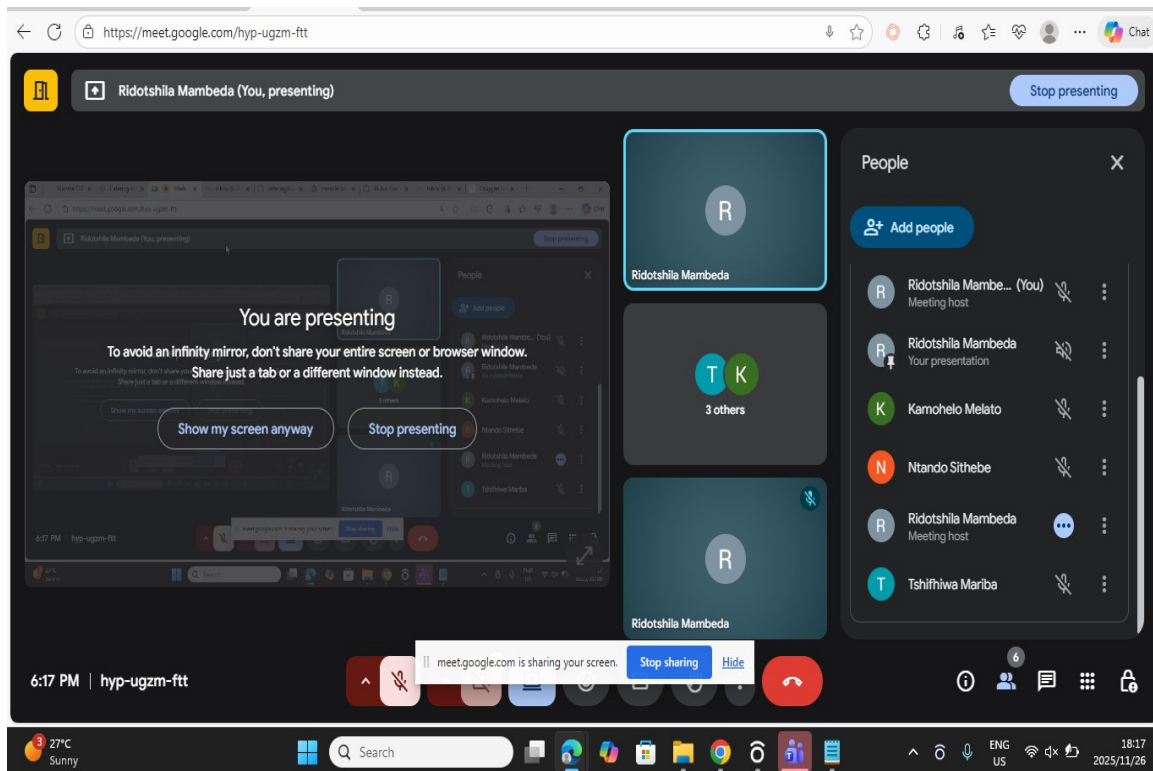
Activity:

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Haskell plutus chapter 9



26 November

Attendees:

- Kamohelo
- Sithebe
- Tshifhiwa

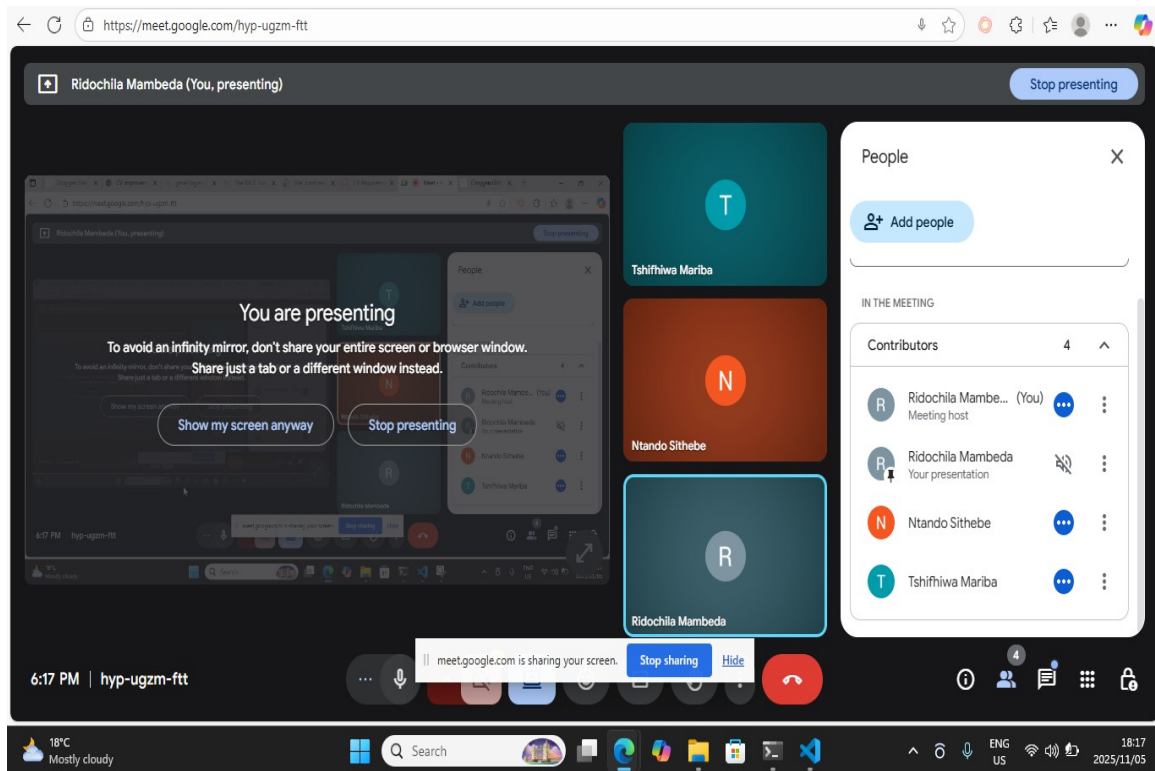
Activity:

Assisting with how they can use haskell online compiler for chapter 13-21

20/24

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4 Personal Technical Contributions –November 2025

4.1 Development of Nine Plutus Validator Smart Contracts

During November, I developed **nine complete Plutus validator smart contracts**, each targeting a different industry use case. These validators were built to strengthen my technical expertise and to demonstrate practical applications of Plutus V2 in real-world scenarios. The smart contracts completed include:

1. **DAO Governance Validator** – Implements decentralized voting and proposal management. [ridotshila/Dao-Governance-plutus](#)
2. **Flash Loan Validator** – Demonstrates atomic lending logic and secure loan repayment conditions. [ridotshila/flash-loan](#)
3. **Catering Validator** – Handles catering service bookings, payments, and confirmations. [ridotshila/catering](#)
4. **Education Validator** – Supports educational workflows such as enrolments or payments. [ridotshila/Education](#)
5. **Transport Validator** – Facilitates transport-related ticketing or service transactions. [ridotshila/52-Transport-Logistics-shipment-milestones](#)

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6. **Finance Validator** –A general financial smart contract for secure transaction processing. [ridotshila/53-Finance-invoices-factoring-stable-rails](#)
7. **Mining Validator** –Handles mining reward distribution or pooled mining contributions. [ridotshila/55-Mining-royalties-leases-ore-provenance](#)
8. **Stop-Loss Validator** –Provides automated market exit logic based on predefined loss thresholds. [ridotshila/13-Stop-loss-take-profit-vault-conditional-exit-](#)
9. **Pull Payments Validator** –Supports recurring or authorized pull-based payment mechanisms. [github.com](#)

Each validator required research, logic design, datum/redeemer structuring, and Plutus validation rule implementation, contributing significantly to my technical growth in smart contract engineering.

4.2 Marketing Contribution: Flyer Creation

Designed and created **flyers for the Alpha Omega Podcast**, supporting branding, content promotion, and audience engagement.

5 Recommendations & Observations –November 2025

5.1 Group G010 (Pretoria Campus)

Group G010 demonstrated strong consistency and commitment throughout November. After completing their Haskell token-minting tasks, they actively engaged in Plutus smart contract development. Their ability to follow demonstrations, replicate contract structures, and debug issues shows they are progressing well toward intermediate-advanced Plutus competency.

Recommendation:

- Continue building more complex validators and gradually introduce off-chain code concepts to prepare them for full DApp development.
 - Encourage the four consistent learners who reached **Chapter 21** to keep advancing toward higher-level chapters to strengthen their theoretical foundation.
-

5.2 Group G017 (Pretoria Campus)

Despite being in their final exam period, Group G017 maintained steady progress in their Haskell practical tasks. One-on-one support sessions helped them overcome difficulties, and several learners advanced up to **Chapter 9**, demonstrating resilience and dedication.

Recommendation:

- Once exams are completed, learners should focus on closing gaps in earlier chapters and pushing forward into the remaining intermediate topics.
- Additional revision sessions are recommended to ensure all learners feel confident before moving into Plutus fundamentals.

5.3 Smart Contract Development Work

In November, significant technical progress was made through the development of **nine Plutus validator smart contracts** (DAO governance, Flash loan, Catering, Education, Transport, Finance, Mining, Stop-Loss, and Pull Payments).

Recommendation:

- These validators should be refined, documented, and prepared for demonstration so they can serve as strong portfolio projects.
- Where applicable, expand selected validators into full DApps to showcase complete on-chain/off-chain integration.

5.4 Learner Engagement & Practical Skills

Learners benefited from collaborative sessions, shared coding, and individual troubleshooting. Continued reinforcement of practical skills will improve confidence and readiness for real blockchain development.

Recommendation:

- Introduce structured peer-review sessions to allow learners to evaluate each other's smart contract work.
- Implement short presentations or walkthroughs to strengthen communication and deepen understanding.

6 Next Steps for December

1. Continue Plutus smart contract development with more complex validators and testing.
2. Reinforce Git/GitHub skills with branching, merging, and collaborative workflows.

3. Support both groups as they progress to the next chapters in their Haskell and Plutus learning paths.
 4. Begin preparing demo-ready showcases for key smart contract projects.
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