



Plunder Academy Final Report

Milestone 4 Completion & Impact Assessment

Prepared for: **GZIL Collective Committee** | Date: **December 11, 2025**

Executive Summary

High-level overview of Plunder Academy's impact and milestone achievements

Plunder Academy has successfully completed all Milestone 4 deliverables and established itself as a comprehensive educational platform for EVM developers within the Zilliqa ecosystem. Since launch, the platform has onboarded **57 active learners** who have collectively completed **93 learning modules** and generated **346 AI-assisted interactions**.

The platform achieved an **84% overall user satisfaction rate** based on 29 feedback submissions, with our AI Chat Assistant reaching **98% satisfaction** and the Code Reviewer tool at **92% satisfaction**. These metrics demonstrate strong product-market fit within the developer education space.

On-chain activity across our deployed smart contracts totals **219 transactions** spanning both testnet and mainnet environments, indicating real engagement with hands-on practical exercises. The open-source release of our core repositories enables community contribution and potential recreation of the AI tooling architecture.

TOTAL USERS

57

Active learners on platform

AI INTERACTIONS

346

6.1 per user average

SATISFACTION RATE

84%

Based on 29 submissions

MODULES COMPLETED

93

1.6 per user average

Milestone 4 Deliverables

Status of all required deliverables for milestone completion

| DELIVERABLE | DESCRIPTION | STATUS |
|--------------------------------------|--|---|
| Open-Source Release | Public release of the 2 main repositories to enable community access and contribution |  COMPLETE |
| AI Architecture Documentation | Detailed article documenting AI Auditor and Chatbot functionality, architecture, and implementation approach |  COMPLETE |
| Secret Achievements | Implementation of 6 new hidden achievements to incentivize deep platform exploration |  COMPLETE |
| Final Impact Report | Comprehensive metrics analysis, user feedback compilation, and sustainability planning (This Document) |  COMPLETE |

Milestone Delivery Timeline

Development effort and delivery performance against proposed schedule

Plunder Academy was delivered on an accelerated schedule, with the team investing **1,050+ development hours** across 19 weeks. Later milestones were completed in compressed timeframes due to team members working extended hours to ensure quality delivery.



| MILESTONE | SUBMITTED | DURATION | HOURS INVESTED | PROPOSED TIMELINE | STATUS |
|---|--------------|----------|----------------|-------------------|-----------------|
| Milestone 1 Portal MVP, AI Auditor Alpha, Basic Chatbot | September 14 | 8 weeks | 200 hours | 8 weeks | ✓ ON TIME |
| Milestone 2 Core Curriculum, AI Auditor Beta, Chatbot Enhancement | October 22 | 5 weeks | 350 hours | 8 weeks | ✓ 3 WEEKS EARLY |
| Milestone 3 AI Optimization, Security Module, Platform Launch | November 25 | 4 weeks | 300 hours | 8 weeks | ✓ 4 WEEKS EARLY |
| Milestone 4 Open-Source, Documentation, Final Report | December 11 | 2 weeks | 200 hours | 8 weeks | ✓ 6 WEEKS EARLY |

1,050+

Total Development Hours Invested

Accelerated Delivery: The original proposal estimated 32 weeks for full project completion. The team delivered all milestones in **19 weeks** — 13 weeks ahead of schedule. This was achieved through dedicated extended working hours, particularly during Milestones 2 and 3 where team members invested 350 and 300 hours respectively to ensure comprehensive curriculum development and platform polish.

The compressed Milestone 4 timeline (2 weeks vs. proposed 8 weeks) reflects that significant groundwork for open-source preparation and documentation was completed throughout earlier milestones, allowing for efficient final delivery.

Outstanding Deliverables

Pending items contingent on external dependencies

| DELIVERABLE | DESCRIPTION | DEPENDENCY | STATUS |
|---------------------|---|-----------------------------|---|
| Zilliqa 2.0 Content | Dedicated modules on Zilliqa 2.0 features and advantages, including xShards, performance optimizations, and account abstraction preparation | Zilliqa 2.0 mainnet release |  PENDING |

Original Milestone 3 Scope: The original grant proposal included Zilliqa 2.0 content as part of Milestone 3, with the explicit caveat: "**that these features are released by Zilliqa by this time.*"

As Zilliqa 2.0 has not yet reached mainnet release, this deliverable remains pending. **Plunder Academy commits to developing and publishing comprehensive Zilliqa 2.0 training modules** covering xShards architecture, enhanced EVM performance, and native account abstraction capabilities once these features are officially released and documented.

This content will be added to the platform at no additional cost as part of our ongoing commitment to the Zilliqa developer ecosystem.

Year 1 Success Metrics

Progress toward annual KPI targets (launched 11/13/2025)

Context: Plunder Academy launched on **November 13, 2025**. The metrics below represent early-stage progress against Year 1 targets. Two KPIs have already been met or exceeded, with others tracking proportionally to timeline.

| Metric | Year 1 Target | Current | Progress | Status |
|-----------------------------|----------------------------------|---------------------------------------|---|----------------------|
| Monthly Active Users | 50+ by Q4 | 57 | <div style="width: 100%; background-color: #2e7131; height: 10px;"></div> | ✓ EXCEEDED |
| User Satisfaction Score | 4.2/5 | 4.2/5 (84%) | <div style="width: 84%; background-color: #2e7131; height: 10px;"></div> | ✓ MET |
| Registered Developers | 100+ | 57 | <div style="width: 57%; background-color: #00B0F0; height: 10px;"></div> | 57% |
| AI Auditor Scans | 200+ | 72 | <div style="width: 36%; background-color: #00B0F0; height: 10px;"></div> | 36% |
| AI Chatbot Interactions | 1000+ | 274 | <div style="width: 27%; background-color: #00B0F0; height: 10px;"></div> | 27% |
| Course Completion Rate | 60% Full 23-module curriculum | 93 completions 1.6 avg per user | <div style="width: 15%; background-color: #FFA500; height: 10px;"></div> | Early Stage |
| Deployed Contracts by Users | 50+ | 11 | <div style="width: 22%; background-color: #00B0F0; height: 10px;"></div> | 22% |
| Portal-Driven dApps | 15-25 | — | — | Tracking in Progress |

✓ KPIs Met/Exceeded

- **Monthly Active Users:** 57 users (114% of 50 target)
- **User Satisfaction:** 4.2/5 achieved from 29 feedback submissions

✓ On Track (Proportional to 21-Day Timeline)

- **Developers:** 57% in 6% of year = strong velocity
- **AI Tools:** Combined 346 interactions trending upward

Curriculum Details: The full Plunder Academy curriculum spans **5 islands** containing **23 learning modules**:

- Island 1 (Foundations): 5 modules — Blockchain, EVM, Solidity basics, ERC-20, Zilliqa setup
- Island 2 (Advanced Solidity): 5 modules — Data structures, testing, staking concepts & practicals
- Island 3 (NFTs): 3 modules — ERC-721 standards, NFT features, collection deployment
- Island 4 (DeFi & Security): 6 modules — Swaps, gas optimization, oracles, proxy patterns, upgradeability
- Island 5 (Integration): 4 modules — Security, error handling, Web3 frontends, dApp interfaces

On-Chain Activity

Smart contract deployment and transaction metrics across Zilliqa networks

219

Total On-Chain Transactions

| CONTRACT | NETWORK | ADDRESS | TRANSACTIONS |
|---|---------|-------------------|--------------|
| Training Registry Core achievement tracking proxy contract | MAINNET | 0x40b749...16dBE8 | 123 |
| Achievement Token (Testnet) NFT badge minting proxy | TESTNET | 0x1dAC44...4082ef | 75 |
| Testing Contract Development and QA deployment | TESTNET | 0x92aE8e...bfEC09 | 16 |
| PlunderAcademyTokenFactory Factory for creating learning tokens | MAINNET | 0x3C04f8...d790Df | 5 |

The Training Registry contract on mainnet serves as the primary hub for tracking user achievements and module completions. The 123 transactions represent real user engagement with practical exercises, including smart contract deployments completed as part of curriculum requirements.

Testnet contracts were used extensively during development and for user practice environments, allowing learners to experiment without financial risk before deploying to mainnet.

AI Tools Performance

Usage metrics and satisfaction ratings for AI-powered educational tools

CHAT ASSISTANT (WISE ORACLE)

274 queries **98%** satisfaction

Average Response Time **8.8 seconds**

The Chat Assistant provides contextual help for learners navigating modules, answering questions about Solidity, EVM concepts, and Zilliqa-specific development.

CODE REVIEWER (SECURITY MATE)

72 audits **92%** satisfaction

Average Analysis Time **2.9 seconds**

The Code Reviewer analyzes user-submitted Solidity contracts for security vulnerabilities, gas optimizations, and best practice violations.

Query Categories Distribution

| CATEGORY | QUERIES | DISTRIBUTION |
|----------------------|---------|--|
| General Questions | 145 | <div style="width: 72.5%; background-color: #00AEEF;"></div> |
| Concept Explanations | 93 | <div style="width: 46.7%; background-color: #00AEEF;"></div> |
| Debugging Help | 31 | <div style="width: 12.9%; background-color: #00AEEF;"></div> |
| Deployment Guidance | 7 | <div style="width: 1.4%; background-color: #00AEEF;"></div> |
| Setup Assistance | 6 | <div style="width: 1%; background-color: #00AEEF;"></div> |

Website Analytics

Platform traffic and engagement metrics (7-day snapshot, preliminary data)

Note: The following metrics represent preliminary data from the past 7 days. Final analytics figures will be updated upon milestone completion review.

UNIQUE VISITORS

169

↑ 1.1% from previous period

PAGE VIEWS

1,230

↑ 50% from previous period

BOUNCE RATE

47%

↓ 26% improvement

AVG PAGES/SESSION

7.3

Strong engagement indicator

Top Pages

| PAGE | VISITORS |
|--|----------|
| / | 108 |
| /chat | 52 |
| /lessons/island3 | 36 |
| /lessons | 31 |
| /system-analytics | 22 |
| /lessons/island3/advanced-nft-features | 20 |

Top Referrers

| SOURCE | VISITORS |
|-----------------------|----------|
| t.co (Twitter/X) | 19 |
| google.com | 3 |
| bing.com | 1 |
| portfolio.metamask.io | 1 |
| stake.kalijo.io | 1 |
| vercel.com | 1 |

Geographic Distribution

| COUNTRY | SHARE |
|-------------------|-------|
| 🇺🇸 United States | 30% |
| 🇬🇭 Ghana | 15% |
| 🇦🇺 Australia | 15% |
| 🇬🇧 United Kingdom | 7% |
| 🇮🇩 Indonesia | 5% |

Device & Platform Breakdown



Operating Systems: Windows 29%, Mac 20%, iOS 20%, Android 16%, GNU/Linux 14%

Learning Module Analytics

Completion rates and quality metrics across curriculum modules

| Module | Completions | Difficulty | Clarity | Value | Avg Time |
|-------------------------------|-------------|------------|---------|-------|----------|
| EVM Fundamentals | 5 | 3.8/5 | 4.6/5 | 4.4/5 | 44 min |
| Intro to Solidity | 4 | 4.5/5 | 4.3/5 | 4.3/5 | 93 min |
| Advanced Solidity Foundations | 3 | 4.7/5 | 4.7/5 | 4.7/5 | 200 min |
| Advanced Security | 3 | 2.3/5 | 4.7/5 | 4.7/5 | 83 min |
| Blockchain Fundamentals | 2 | 2.5/5 | 5.0/5 | 5.0/5 | 38 min |
| Zilliqa EVM Setup | 2 | 2.0/5 | 3.5/5 | 5.0/5 | 120 min |
| ERC-721 Standards | 2 | 4.0/5 | 3.0/5 | 4.5/5 | 120 min |
| DApp Interface Practical | 2 | 3.0/5 | 4.5/5 | 2.5/5 | 98 min |

Key Insight: Modules with lower perceived difficulty (Advanced Security at 2.3/5) maintained high clarity and value scores (4.7/5), indicating effective instructional design that makes complex topics accessible. The Advanced Solidity Foundations module, despite being rated most difficult (4.7/5), received perfect clarity and value scores, demonstrating that learners appreciate challenging content when well-presented.

Top Learners Leaderboard

Most engaged users demonstrating platform adoption and learning progression

| RANK | WALLET ADDRESS | ACHIEVEMENTS | INTERACTIONS | RATING |
|------|----------------|--------------|--------------|--------|
| 1 #1 | 0x1A39...3bDe | 35 | 152 | ⭐ 5.0 |
| 2 #2 | 0x688C...36e5 | 23 | 90 | ⭐ 4.3 |
| 3 #3 | 0x13C4...eAfF | 20 | 15 | — |
| #4 | 0x698d...28cA | 15 | 38 | — |
| #5 | 0x43fB...91f3 | 9 | 21 | — |
| #6 | 0x28fe...3878 | 6 | 2 | — |
| #7 | 0x318F...B084 | 6 | 0 | — |
| #8 | 0xA36F...4495 | 6 | 0 | — |
| #9 | 0xea5D...C526 | 4 | 3 | — |
| #10 | 0xf662...1Fc1 | 4 | 0 | — |

The top learner (0x1A39...3bDe) has demonstrated exceptional engagement with **35 achievements earned** and **152 platform interactions**, providing a perfect 5.0 satisfaction rating. This user's detailed feedback has been instrumental in shaping platform improvements.

User Feedback Compilation

Direct testimonials and actionable feedback from platform users



"The module was highly effective because it provided a complete, actionable, and multi-faceted approach. Actionable Code gave concrete implementation... Structured Response defined a clear Escalation Tree... Real-World Speed emphasized rapid response SLAs."

— 0x688C...36e5, on Advanced Security Module



"Using real world examples to make explanations made it easier to understand."

— 0x1A39...3bDe, on EVM Fundamentals



"Clearly introduces Solidity, fits logically after blockchain and EVM fundamentals, and uses an engaging, structured approach."

— 0x688C...36e5, on Intro to Solidity



"The EVM Fundamentals module effectively explains how the Ethereum Virtual Machine works, covers gas and smart contract execution clearly, and uses a structured, engaging format that makes complex concepts easier to understand."

— 0x688C...36e5



"You fixed it for mobile."

— 0x698d...28cA, acknowledging rapid mobile improvements

Feedback-Driven Improvements Shipped

| USER REQUEST | ACTION TAKEN | TIMELINE |
|----------------------------------|---|----------|
| "Chat needs to remember threads" | Implemented full chat history persistence | Shipped |
| "Need mobile support" | Complete mobile wallet & UI overhaul | 48 hours |
| "More visual diagrams" | Added 100+ hours of visualization content | Shipped |
| "Color code the blocks" | Implemented syntax highlighting for code examples | Shipped |
| "OpenZeppelin version issues" | Updated documentation for v5.x compatibility | Shipped |

Platform Content Growth

Educational resources developed and deployed

GLOSSARY TERMS

344

Searchable blockchain &
Solidity terminology

VISUAL CONTENT

100+

Hours of diagram & animation
development

LAUNCH BADGE CLAIMS

52

"The Maiden Voyage"
achievement

SECRET TREASURES FOUND

14

Hidden achievements
discovered

New Content Published

- **Mastering AI Reviews** — Guide to effectively using the Code Reviewer tool
- **Liquidity Deep Dive** — Comprehensive DeFi liquidity concepts
- **Remix IDE Guide** — Step-by-step smart contract development
- **Arbitrage Strategies** — Understanding MEV and arbitrage patterns
- **Security Best Practices Module** — Incident response and vulnerability management
- **AI Architecture Documentation** — How we built the AI tooling (Milestone 4 deliverable)
- **Zilliqa MCP Server Integration** — Model Context Protocol integration into the AI chatbot for enhanced Zilliqa-specific assistance
- **Golang Blockchain Integration** — Guide to interacting with Zilliqa blockchain using Go

- **Python Blockchain Integration** — Guide to interacting with Zilliqa blockchain using Python
- **Additional Code Samples** — Expanded examples and reference implementations on GitHub

Hidden Achievements Discovered

| ACHIEVEMENT NAME | TIMES FOUND | RARITY |
|------------------|-------------|-----------|
| Murphy's Fortune | 7 | Uncommon |
| Arctic Majesty | 3 | Rare |
| Golden Rams | 2 | Very Rare |
| Aetos Dios | 1 | Legendary |
| Night Rider | 1 | Legendary |

Lessons Learned

Key insights from platform development and user engagement

✓ What Worked Well

- **Gamification:** Achievement badges and leaderboards drove significant engagement (152 interactions from top user)
- **AI Integration:** 98% chat satisfaction proves AI-assisted learning adds genuine value
- **Rapid Iteration:** 48-hour mobile fix turnaround built user trust
- **Real-World Examples:** Users consistently praised practical, actionable content
- **Structured Progression:** Module sequencing (Blockchain → EVM → Solidity) resonated with learners

⚡ Areas for Improvement

- **Video Tutorials:** Multiple users requested video content alongside text
- **Dependency Documentation:** OpenZeppelin version mismatches caused friction
- **Quiz Timing:** Some practical assessments need extended time allocations
- **Clearer Action Items:** Users wanted explicit "need to do" sections in modules
- **Failure Feedback:** Assessment failures should specify exact issues

Risk Assessment & Mitigation

How identified project risks were addressed

The original grant proposal identified five key risks. Below is a summary of how each was addressed during development and how ongoing mitigation strategies are being maintained.

| RISK | MITIGATION STRATEGY | OUTCOME |
|---|---|---|
| Low Platform Adoption | Leveraged existing community reach from PlunderSwap, Kalijo, and Zilnames. Implemented targeted outreach to EVM developers. Used AI tools as key differentiators. Continuous iteration based on user feedback. | ✓ 57 users in 21 days, exceeding 50-user Q4 target |
| AI Tool Accuracy Issues | Extensive testing against diverse smart contract datasets. Iterative prompt engineering with expert review. Clear disclaimers positioning tools as assistants. User feedback mechanisms for continuous improvement. | ✓ 98% Chat satisfaction, 92% Auditor satisfaction |
| Technical Development Challenges | Team's proven track record with complex dApps. Agile methodologies and battle-tested technologies (RainbowKit, established LLM APIs). Development buffers maintained. | ✓ All milestones delivered ahead of schedule (19 vs 32 weeks) |
| Content Currency & Evolution | Focus on fundamental, stable concepts. Modular content architecture for easy updates. Close relationships with Zilliqa core team. Community contribution mechanisms planned. | ✓ OpenZeppelin v5.x updates shipped rapidly based on feedback |
| Long-term Sustainability | Built high-value platform demonstrating clear ROI. Open-source release enables community ownership. Design accommodates future revenue models while keeping core content free. Infrastructure budget provides operational runway. | → Ongoing: Open-source + community sustainability model |

Key Takeaway: All identified risks were effectively managed, with adoption, technical delivery, and user satisfaction metrics exceeding targets. The long-term sustainability strategy is now in execution phase through open-source release and community engagement.

Sustainability Plan

Strategies for long-term platform viability and growth

Plunder Academy's sustainability strategy focuses on three pillars: **community ownership** through open-source repositories, **content expansion** driven by user feedback, and **ecosystem integration** with the broader Zilliqa developer community.

Open Source

Core repositories now public, enabling community contributions, forks, and independent hosting. AI architecture documentation allows recreation of educational AI tooling.

Content Growth

Continuous expansion based on user-requested topics: TypeScript integration and framework guides for Python/JavaScript dApp development.

Community

Active presence on X (@PlunderAcademy), Telegram, and GitHub enables ongoing user support and community building beyond the initial grant period.

Planned Roadmap

- **Zilliqa 2.0 Modules:** Dedicated content on xShards, performance optimizations, and account abstraction upon mainnet release
- **Community Contributions:** Accept pull requests for new modules and glossary terms
- **Documentation Updates:** Maintain compatibility with latest OpenZeppelin and Zilliqa tooling versions
- **Video Content Pipeline:** Address top user request with video tutorial companions for complex modules

Conclusion

Summary of impact and milestone completion

Plunder Academy has successfully achieved all Milestone 4 objectives while establishing a meaningful presence in the Zilliqa developer education space. With **57 active users, 219 on-chain transactions, 346 AI interactions**, and an **84% satisfaction rate**, the platform demonstrates strong product-market fit and genuine educational value.

The completion of open-source releases, comprehensive AI documentation, and gamified secret achievements positions Plunder Academy for sustainable community-driven growth. User feedback has been systematically incorporated, with major improvements (mobile support, chat history, syntax highlighting) shipped rapidly in response to direct requests.

The platform's on-chain footprint across both testnet and mainnet Zilliqa networks reflects real hands-on learning, with users deploying actual smart contracts as part of their educational journey. This practical, wallet-connected approach differentiates Plunder Academy from passive tutorial sites and creates tangible skill development.

We thank the **GZIL Collective Committee** for their support and look forward to continuing to grow the Zilliqa developer ecosystem through accessible, AI-enhanced education.



All Milestone 4 Deliverables Complete

Ready for Committee Review

plunderacademy.com

Analytics: plunderacademy.com/system-analytics

GitHub: github.com/PlunderAcademy

X: [@PlunderAcademy](https://twitter.com/@PlunderAcademy) | Telegram: t.me/PlunderAcademy

