

1.5% Bulk Discount
100+ units

eBuildify: Construction Materials E-commerce

Presented by: BuildTech Solutions

1

Project Details

Client: Sol Little By Little Enterprises

2

Project Duration

16 weeks (June - December 2025)

3

Scope

Development of a comprehensive e-commerce platform for construction materials, including order automation, inventory management, diverse payment options, and delivery logistics optimization.

Team Members & Roles

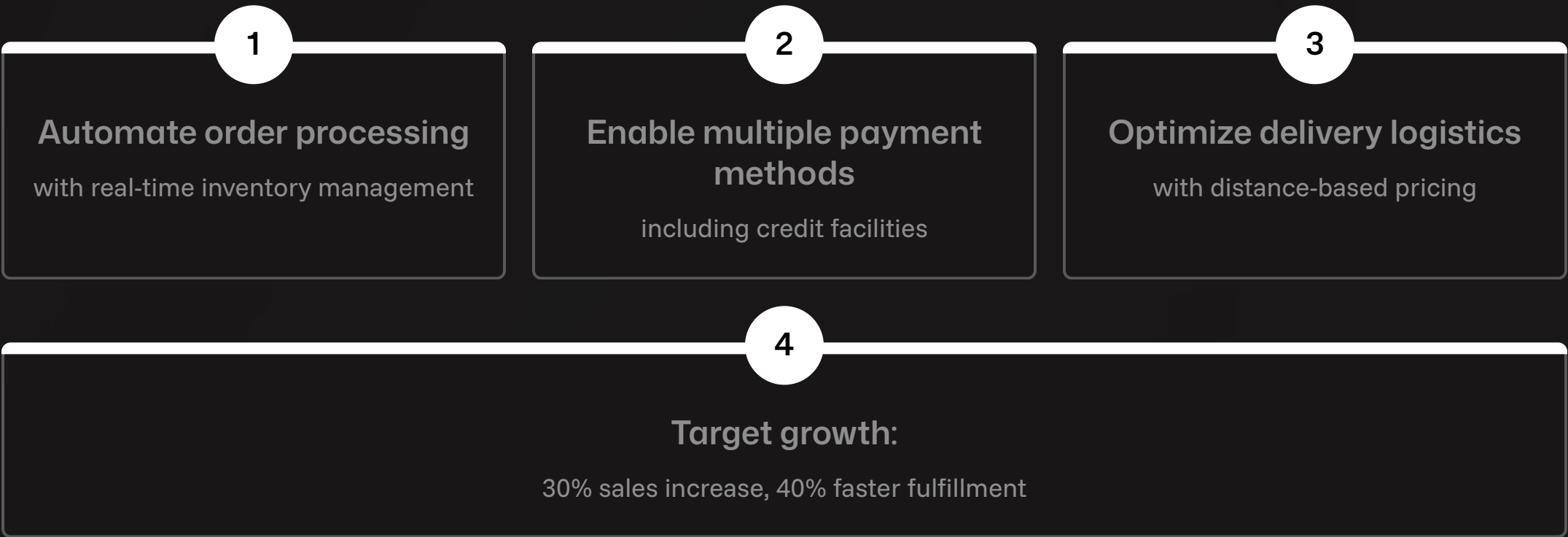
- **Enoch Amarteifio:** Scrum Master & Frontend Developer
- **Ocran Bransford Charles:** Product Owner & UI/UX Designer
- **Abdul Rashid:** Backend Developer
- **Jimba Muzamil:** QA Engineer & Testing Lead
- **Timeon Able:** Documentation & Demo Lead
- **Dompreh Jerry Jabari:** Additional Developer
- **DevOps/CI-CD Lead:** (To be assigned)

Problem Statement & Goals

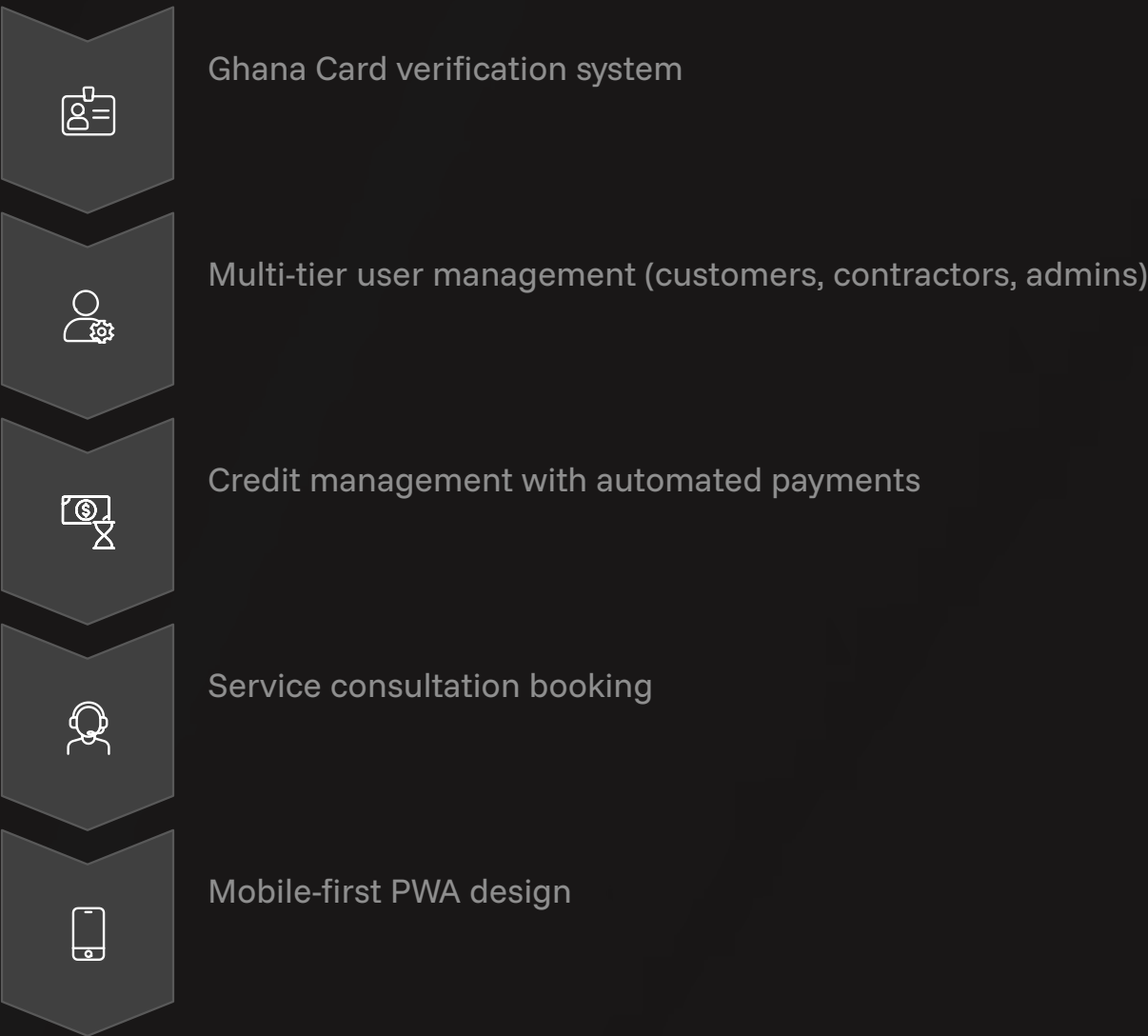
Sol Little By Little Enterprises processes orders manually through calls and WhatsApp, causing:

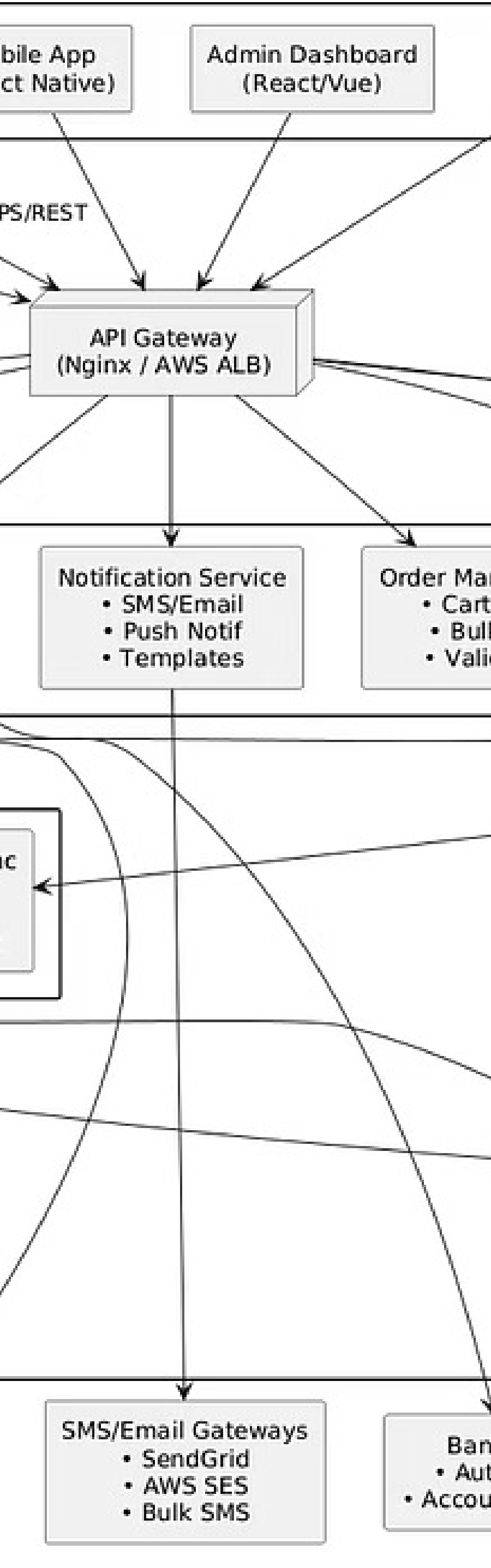
01	02
Order errors and delays	Inventory discrepancies
03	04
Limited payment options	Poor delivery tracking

Project Goals



Key Features





Technical Deliverables Overview

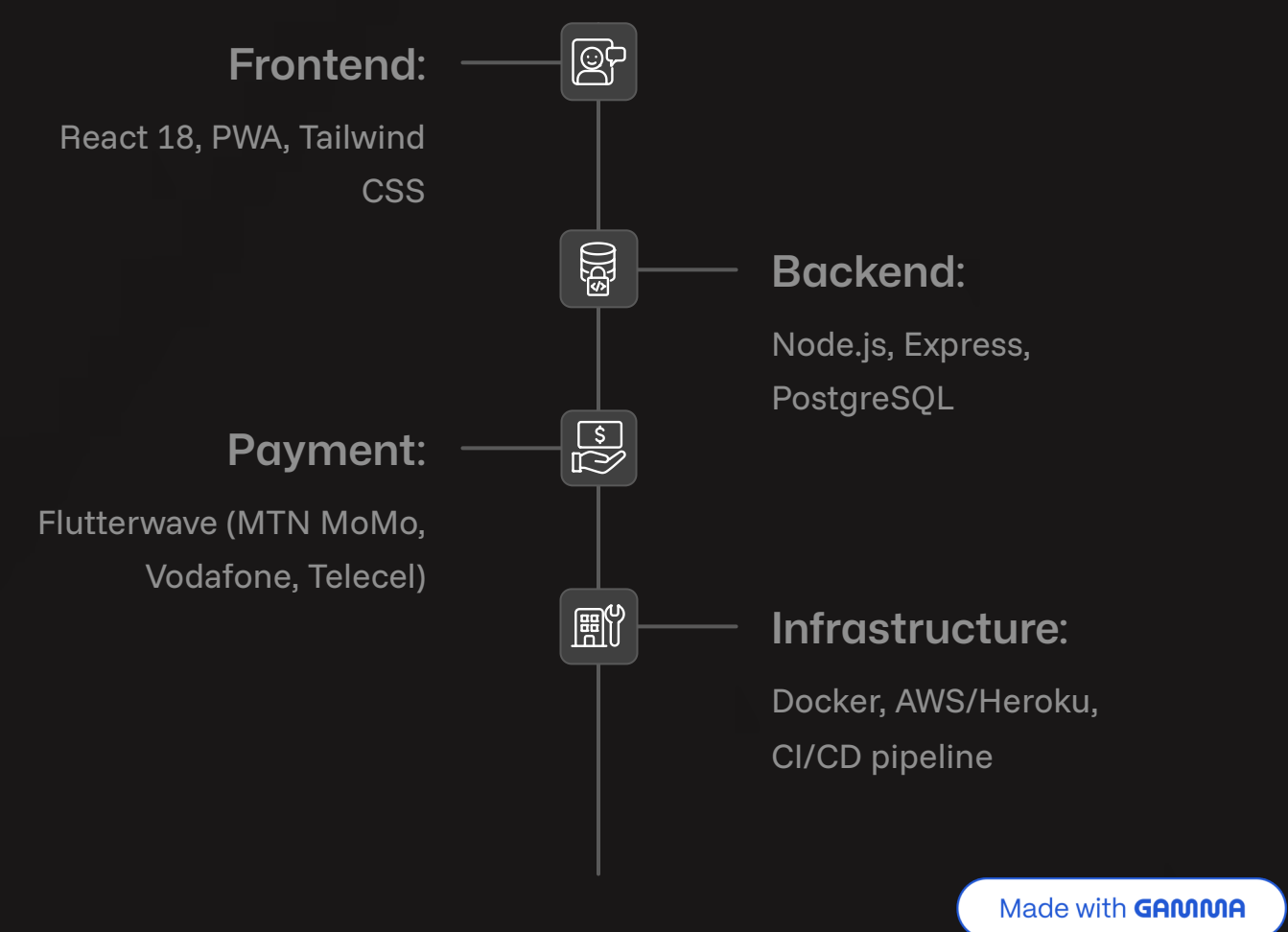
System Requirements Specification (SRS)

- 55 User Stories**
across 9 epics
- 24 Use Cases**
with complete traceability
- 16 Non-functional requirements**
covering performance, security, scalability

Product Backlog Highlights

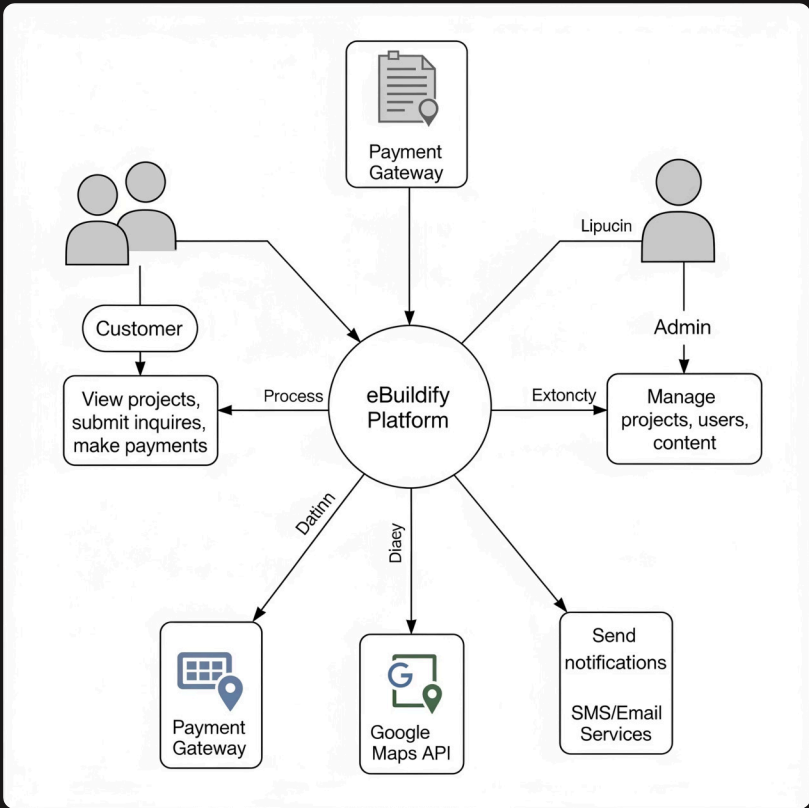
- 369 story points**
total backlog
- INVEST-compliant**
user stories
- MoSCoW prioritization**
framework
- Planning Poker estimation**
with Fibonacci scale

Technical Stack

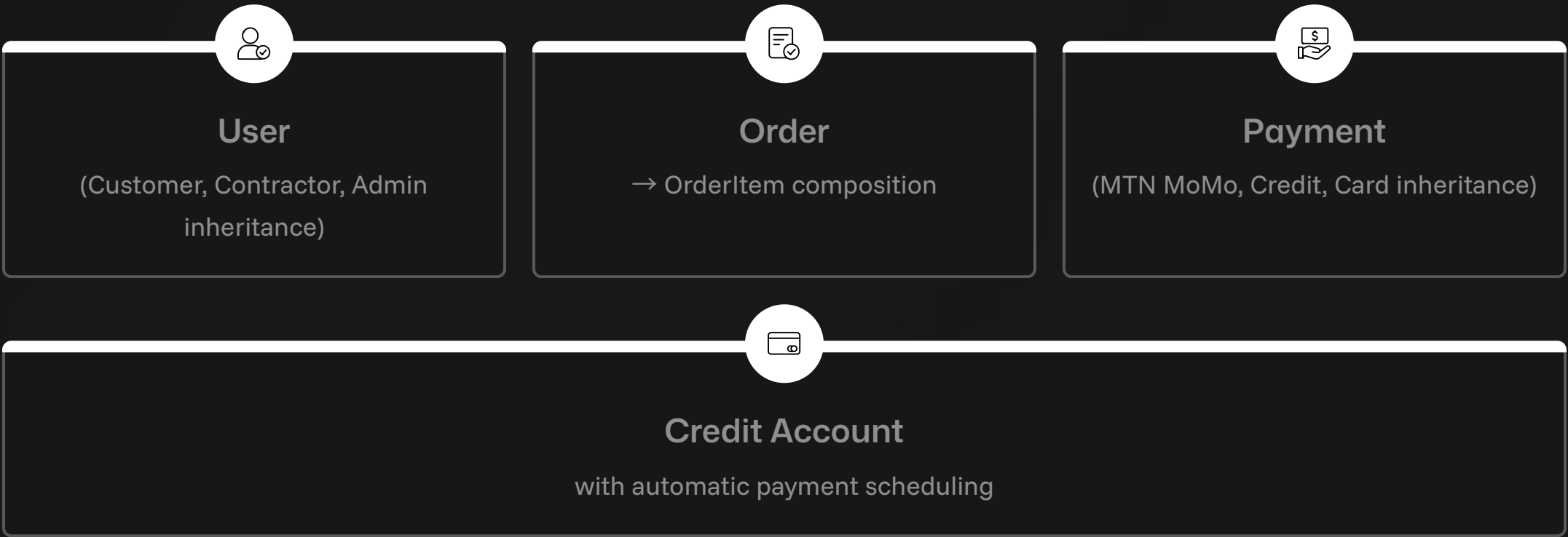


Software Engineering Models

Data Flow Diagram (Level 0)



UML Class Diagram Key Classes



System Architecture

Microservices Design:

- API Gateway → Load Balancer
- User Management, Product Catalog, Payment Services
- PostgreSQL + Redis caching
- External integrations (Flutterwave, Maps, SMS)



Live Demonstration

Working Prototype Features

1

User Registration & Authentication

- Ghana Card verification system
- Role-based access control

2

Product Catalog

- Advanced search and filtering
- Mobile-responsive design
- Real-time inventory display

3

Shopping Experience

- Offline cart functionality
- Bulk pricing automation (1.5% discount ≥ 100 units)
- Product comparison tool

GitHub Repository

Organization:

BuildTech-Solutions

Active branches:

main, develop, feature branches

CI/CD Pipeline:

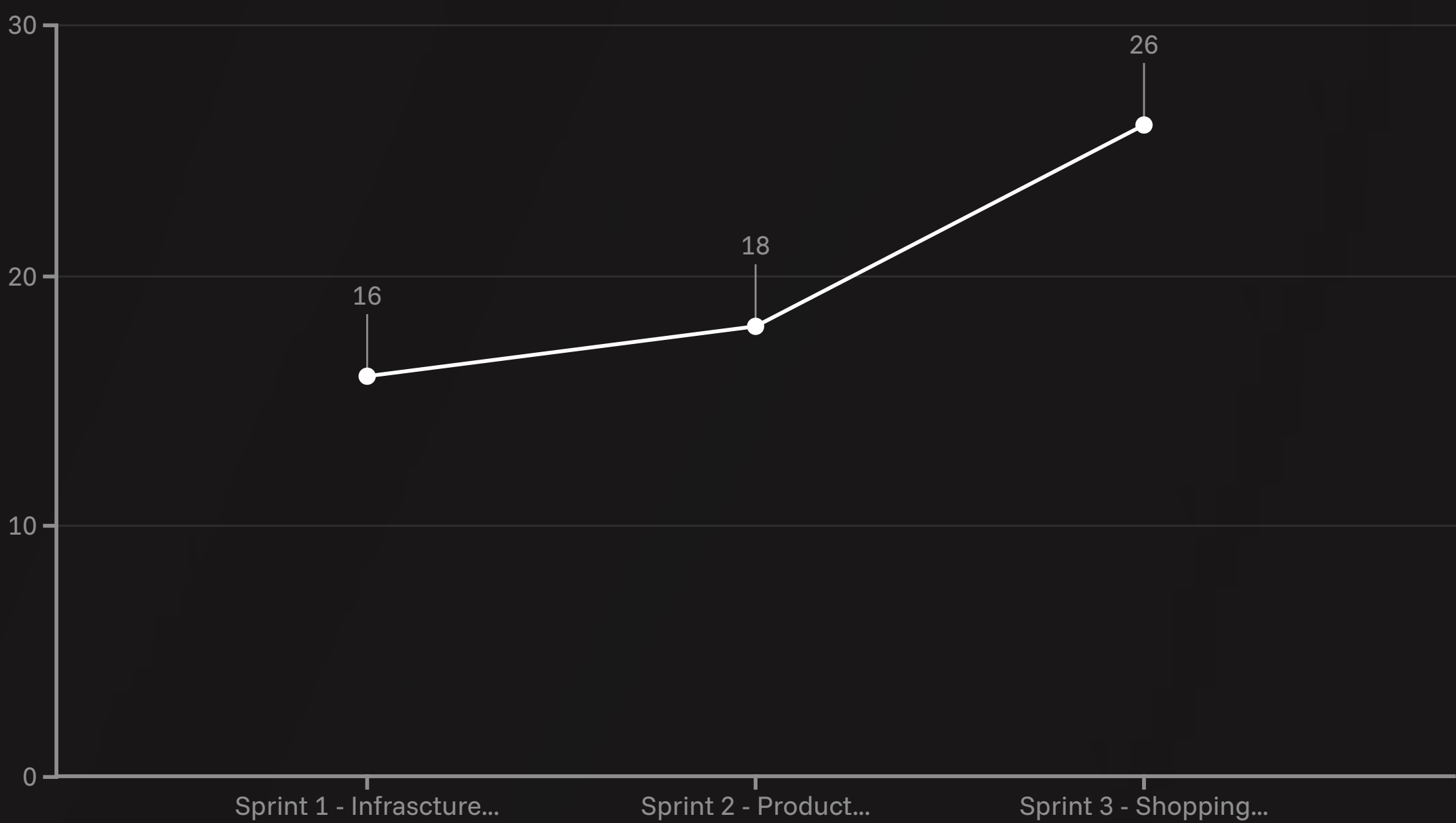
Automated testing, deployment

Code coverage:

92% (exceeds 80% target)

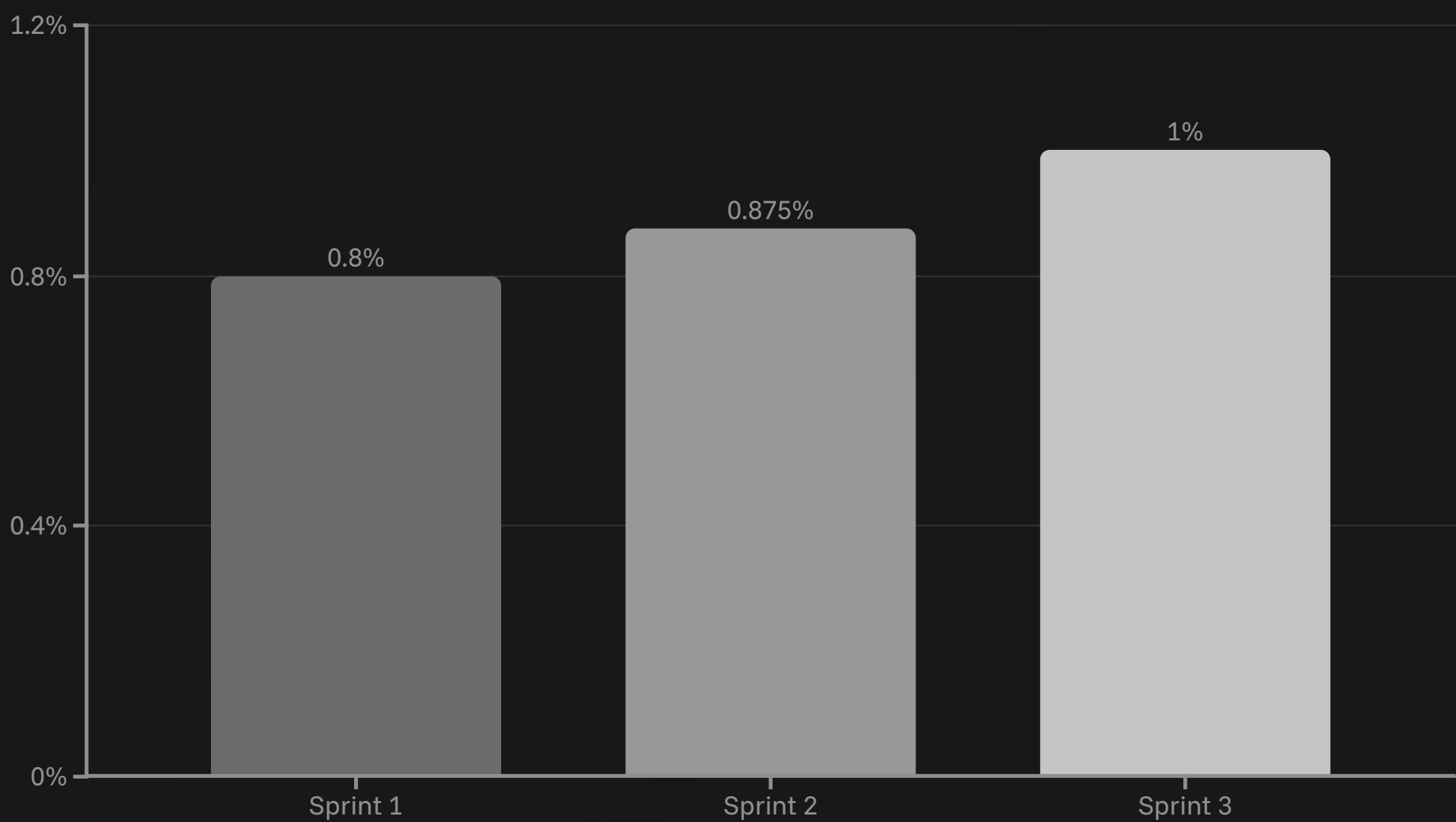
Agile Metrics Analysis

Sprint Velocity Trend



Team Velocity Growth: +62% improvement from Sprint 1 to 3

Sprint Success Rates



Key Metrics

85%

Code Coverage

Consistently above

96%

Story Point Accuracy

estimation accuracy in Sprint 3


0

Quality


critical bugs in production features

Sprint Reflections & Achievements


What Went Exceptionally Well




Technical Foundation:
Robust CI/CD pipeline and security implementation




Team Maturation:
100% Sprint 3 completion shows growing expertise



Quality Focus:
92% code coverage with comprehensive testing



Innovation:
Offline cart functionality exceeds industry standards



Client Alignment:
All demos received positive stakeholder feedback

Key Technical Achievements

- 1

Ghana Card Verification:

Secure encryption and validation system
- 2

Payment Integration:

Flutterwave gateway ready for multiple providers
- 3

Offline Functionality:

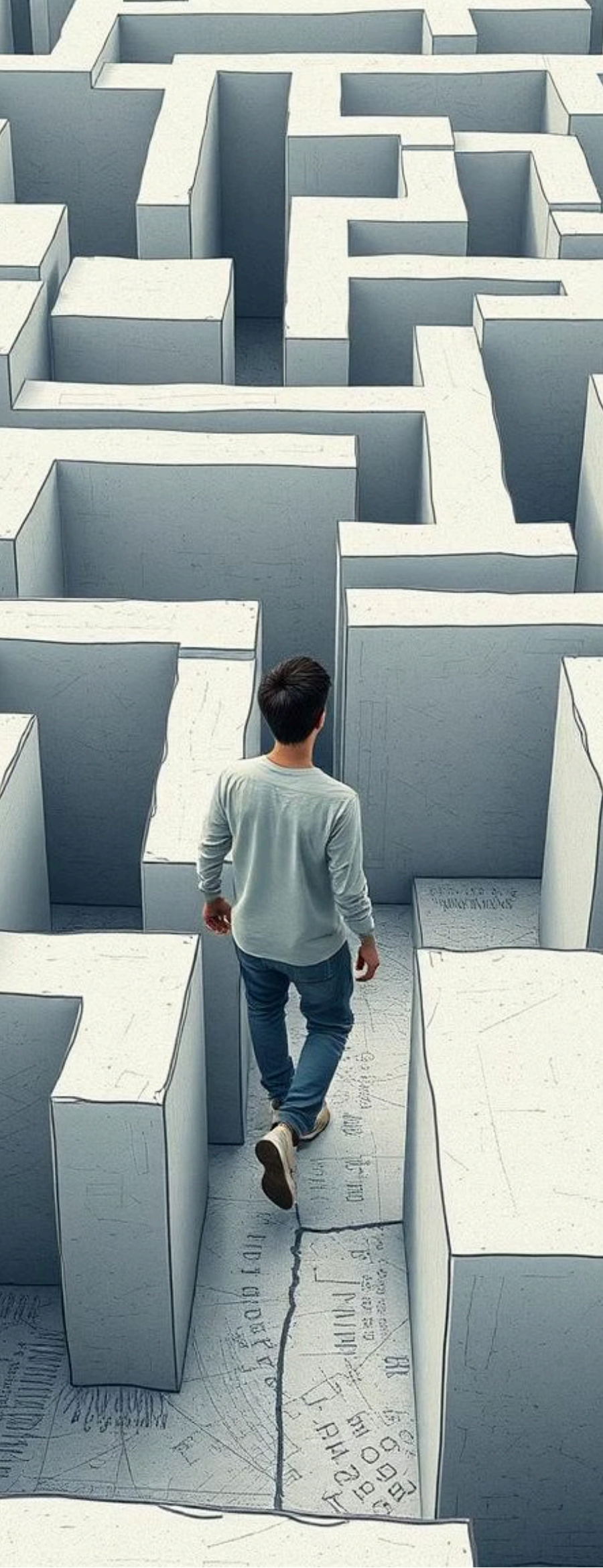
Cart persists in poor connectivity areas
- 4

Bulk Pricing Engine:

Automated 1.5% discount system
- 5

Mobile Performance:

2.1 second average load time



Challenges & Risk Management

Major Challenges Encountered

Payment Gateway Complexity

- **Impact:** Integration more complex than estimated
- **Mitigation:** Dedicated payment sprint with API testing phase

Ghana Card API Integration

- **Challenge:** Government partnership requirements unclear
- **Solution:** Implemented basic verification with enhancement options

Team Coordination

- **Issue:** 7-member team communication overhead
- **Resolution:** Enhanced daily standups and clear role definitions

Risk Mitigation Strategies

Technical Spikes:

2-day research phases for complex integrations



Buffer Time:

Built into critical path activities

Fallback Options:

Multiple payment providers, offline functionality

Process Improvements Implemented

Agile Methodology Evolution

1

Sprint 1 → Sprint 3 Improvements:

- Enhanced estimation accuracy (60% → 96%)
- Better story decomposition following INVEST principles
- Improved cross-team collaboration

Development Practices

Code Review:

Minimum 2 approvals before merge

CI/CD Pipeline:

Automated testing, security scans, deployment

Documentation:

Parallel development with features

Communication Enhancements

Client Demos:

Bi-weekly stakeholder presentations

Risk Assessment:

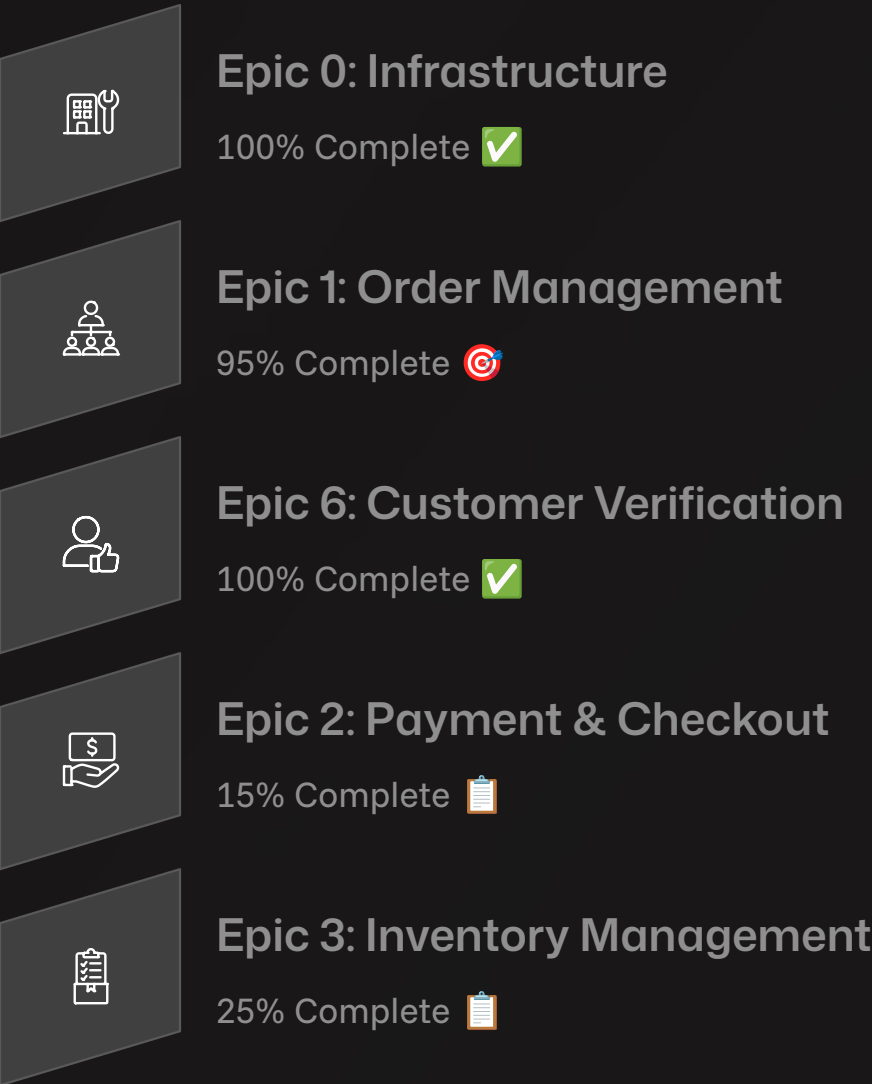
Weekly evaluation during sprint planning

Knowledge Sharing:

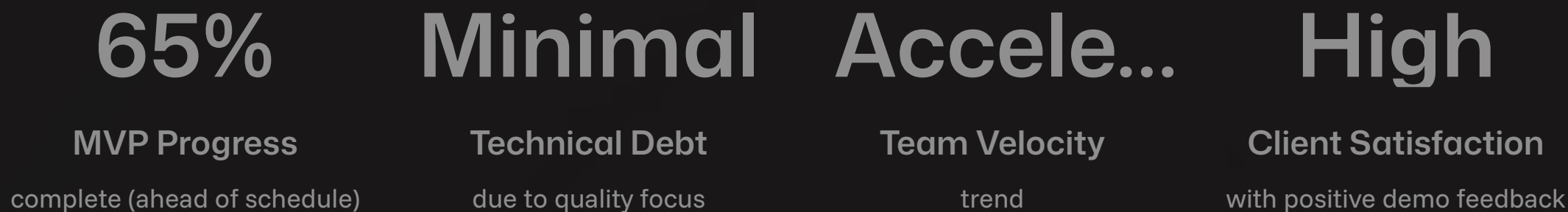
Cross-training across technical domains

Current Project Status

Epic Completion Overview



Overall Progress



Sprint 3 Objectives & Next Steps

Immediate Priorities (Next Sprint)

1

Payment Integration Sprint

- Complete MTN MoMo, Vodafone Cash, Telecel Cash integration
- Implement B2B credit system with admin approval workflow
- Develop automatic payment scheduling and penalty system

2

Technical Goals

- Maintain 90%+ code coverage
- Implement PCI-DSS compliance measures
- Complete payment security audit

Capacity Planning

Recommended Capacity:

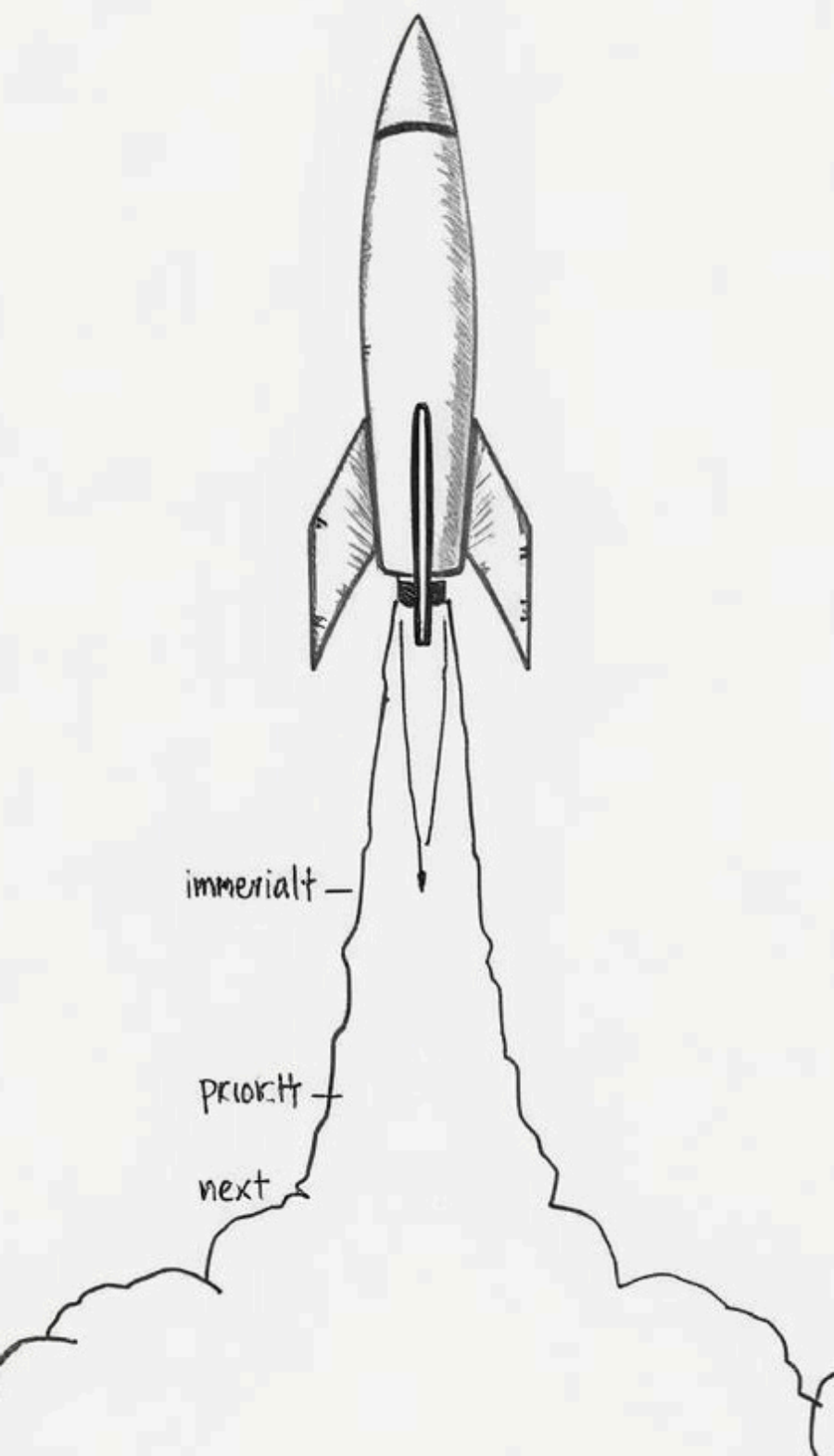
28-30 story points

Duration:

7 days focused on payment complexity

Team Availability:

All 7 members ready for integration work



Final Release Timeline

Remaining Development Phases



Phase 4: Delivery & Logistics

Sprints 4-5 focus on robust delivery management and logistics integration for efficient order fulfillment.



Phase 5: Booking & Contractor Portal

Sprints 6-7 will build out the service booking system and a dedicated portal for contractors.



Phase 6: Integration & Optimization

Sprint 8 ensures final system integration, performance tuning, and pre-launch quality assurance.

Launch Readiness Assessment

Expected MVP Launch:

October 1, 2025

Final Launch:

December 15, 2025

Budget Status:

On track with ₺174,944 total project cost

Success Metrics Target

Performance:

<3 seconds load time on 3G networks

Capacity:

Support 500+ concurrent users

Business Impact:

30% sales increase, 40% faster fulfillment

Thank You!

Questions?



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0542972982



Repository

github.com/enoch-amart/BuildTech-Solutions



Team YouTube

[@buildtechsolutions](https://www.youtube.com/@buildtechsolutions)

We are ready for your live demo and technical questions!