AWS GenAl RAG Workshop: Outcomes & Strategic Value

Engineering Management Briefing - June 5, 2025

Engineering Team
June 5, 2025

AWS GenAl RAG Workshop Summary

• Date: May 29, 2025 (1 day investment)

Start with the concrete facts about the workshop to establish credibility and context.

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What We Built

Complete RAG pipeline from scratch

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- Cost optimization frameworks
- Domain-specific fine-tuning capabilities
- Production monitoring systems

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Real-World Applications

1. Customer Support Automation

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Core Competencies Developed

- Document processing
- Embedding generation
- Vector search
- Response synthesis

- Hybrid search
- Reranking algorithms
- Query optimization
- Fine-tuning strategies

AWS Bedrock Expertise

• Claude 3 model family integration

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Workshop Investment vs. Returns

Metric	Value
Workshop Investment	\$12,000
Monthly Savings Potential	\$5,000
Payback Period	2.4 months
First Year ROI	400%

Cost Optimization Strategies Learned

• Intelligent Caching: Reduce redundant API calls

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- Model Tiering: Right-size models to queries
- Batch Processing: Optimize throughput costs
- Budget Monitoring: Proactive cost management

Phase 1: Pilot Project (Weeks 1-4)

• Select pilot use case (customer support)

Phase 2: Production Rollout (Weeks 5-8)

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Skills Development

- Basic AI/ML understanding
- Limited GenAl exposure
- No production RAG experience

- Production-ready skills
- Cost optimization expertise
- Architecture best practices

Knowledge Transfer Plan

1. Internal tech talks (bi-weekly)

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- 3. Pair programming sessions
- 4. Code review standards

Market Positioning

"By 2026, more than 80% of enterprises will have used GenAl APIs and models" – Gartner

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Risk Mitigation

Security best practices learned

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- Security best practices learned
- Cost control mechanisms

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- Compliance considerations addressed

Immediate Actions

1. Approve pilot project (2 developers, 4 weeks)

Medium-term Strategy

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Medium-term Strategy

- 1. Establish AI Center of Excellence
- 2. Budget for ongoing training (quarterly)

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- 3. Partner with AWS (credits, support)

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Success Metrics

• Cost reduction: Target 30% by Q3

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- Efficiency gain: 50% faster information access

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Quarterly Investment Plan

Quarter	Investment	Expected Return	ROI
Q2 2025	\$15,000	\$15,000	100%
Q3 2025	\$20,000	\$45,000	225%
Q4 2025	\$25,000	\$75,000	300%
Q1 2026	\$30,000	\$120,000	400%

Resource Allocation

• 2 FTE for initial implementation

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- 20% time for knowledge transfer
- AWS infrastructure budget
- Training and certification funds

Decision Points

1. ☐ Approve pilot project scope

Timeline June July August September | | | | | Pilot -----> Production --> Expansion --> Full Rollout | | | | | 2 devs 4 devs 6 devs All teams

Decision Points

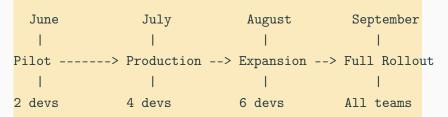
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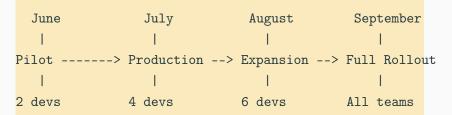
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- 4. □ Schedule bi-weekly reviews

Timeline



Key Takeaways

• Proven ROI: 400% first-year return

Ready to lead in the GenAl era?

- Workshop Materials: github.com/company/rag-workshop
- Technical Lead: [Name]
- Project Sponsor: [Name]
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Key Takeaways

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- Low Risk: Phased approach with checkpoints

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- Strategic Value: Competitive differentiation

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