AI Practitioner Certification - Thoughts

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Comparison with SAA-C03

•Focus shifts from “pure cloud infrastructure” to AI/ML and Generative AI.

•Scope includes:
•Fundamentals of AI/ML
•Generative AI concepts
•Applications of foundation models
•Responsible AI practices
•Security, compliance & governance in AI solutions
The certificate is **foundational-level**, aimed at enabling business / product / IT professionals to understand AI-driven solutions in AWS. Amazon Web Services, Inc.

•AIF-C01 shifts from cloud architecture to understanding AI/ML and Generative AI.
•This certification emphasizes:
•Foundation models and generative AI
•AI services selection
•Responsible AI principles
•Governance, security, privacy
•Assumes you already know:
•IAM, VPC, networking, security, serverless basics
•New angle:

Dimension	SAA-C03	AIF-C01
Focus	Cloud architecture, resiliency, networking	AI/ML foundations, generative AI, foundation models
Typical questions	Scaling, storage, compute, HA	RAG, FM selection, responsible AI, use-case mapping
Technical depth	Infrastructure-heavy	Conceptual + applied AI services
Skills required	Design, VPC, IAM, distributed systems	Understanding models, prompting, AI ethics, service capabilities
Key services	EC2, RDS, VPC, ALB, S3	Bedrock, SageMaker, Kendra, Comprehend, Lex, Rekognition
Mindset	How to architect cloud workloads	How to apply AI safely & effectively

Conclusion:

→ SAA = Build cloud architectures

→ AIF-C01 = Understand and apply AI/ML capabilities

Slide 2 — Exam Overview & Candidate Profile

Certification code: AIF-C01. d1.awsstatic.com+1

Duration: 90 minutes. Amazon Web Services, Inc.+1

Number of questions: 65 (50 scored + 15 unscored). d1.awsstatic.com+1

Minimum passing score: 700 (scaled 100-1000). d1.awsstatic.com

Intended for individuals familiar with AI/ML and generative AI, but who do *not necessarily* build full AI/ML solutions. d1.awsstatic.com+1

Recommended prior AWS knowledge: core AWS services (e.g., EC2, S3, Lambda, SageMaker), IAM, global infrastructure. d1.awsstatic.com

Slide 4 — Domain Breakdown

The exam content is grouped into five domains with these weightings: d1.awsstatic.com

Domain 1: Fundamentals of AI & ML — **20%**

Domain 2: Fundamentals of Generative AI — **24%**

Domain 3: Applications of Foundation Models — **28%**

Domain 4: Guidelines for Responsible AI — **14%**

Domain 5: Security, Compliance & Governance for AI Solutions — **14%**

Slide 5 — Key Services & Concepts to Know

Generative AI / Foundation Models (e.g., tokens, embeddings, vectors, prompting) d1.awsstatic.com

Foundation model applications: e.g., RAG (retrieval-augmented generation), agents, multimodal models d1.awsstatic.com

AWS services in scope (non-exhaustive):

- Amazon Bedrock d1.awsstatic.com
- Amazon SageMaker d1.awsstatic.com
- Amazon Kendra d1.awsstatic.com
- Amazon Comprehend, Amazon Lex, Amazon Rekognition, Amazon Polly, Amazon Translate, Amazon Textract d1.awsstatic.com

Lifecycle of ML/AI solution: data collection, model training, deployment, monitoring (MLOps concepts) d1.awsstatic.com

Slide 5 — Core AWS AI Services You Must Know

Amazon Bedrock

Access foundation models (LLMs, embeddings, image mod

Key features: Knowledge Bases, Agents, Guardrails, Model

Patterns: RAG, chatbots, structured extraction, image gene

Amazon SageMaker

ML lifecycle: training, inference, hosting

For AIF-C01: conceptual understanding only

Amazon Kendra

Enterprise search, retrieval, semantic ranking

Critical for RAG architectures

Amazon Comprehend

NLP: sentiment, classification, entities, PII detection

Amazon Lex

Conversational bots

Amazon Rekognition

Vision: image/video analysis

Other supporting services

Translate, Transcribe, Polly, Textract

Security: IAM, KMS, CloudTrail

Major Use-Case Patterns & Scenarios

When to use generative vs classical ML vs search vs vision.

Use-cases: text generation, image/video generation, chatbots, summarization, code generation. DEV Community+1

Responsible AI & governance: bias, fairness, hallucinations, model audit. d1.awsstatic.com+1

Security, compliance, governance, data privacy in AI solutions.

Foundation model selection and customization: cost vs performance, fine-tuning vs in-context learning. d1.awsstatic.com

Slide 6 — Patterns Most Frequently See
RAG (Retrieval-Augmented Generation):
Bedrock Knowledge Bases
Kendra as vector/store retrieval engine
Choosing between Generative AI vs Clas
Prompt engineering concepts:
Zero-shot, few-shot, in-context learning
Responsible AI patterns:
Minimizing bias, privacy considerations
Model selection scenarios:
Text vs multimodal vs embeddings
Security and governance patterns:
Data boundaries, logging, encryption,

Slide 7 — How to Approach Questions

Multiple-choice, multiple-response, ordering, matching, case study question types. DEV Community

Read the scenario carefully: you'll need to pick *which AWS service or pattern* fits best.

Eliminate answers that assume full build of model or heavy coding (these are *out of scope* for exam) d1.awsstatic.com

Focus on **business value**, **use-case fit**, **service capabilities**, and **responsibility/gov aspects**.

•Read the problem and identify:
•The **business goal**
•The **type of content** (text, images, docume
•Whether it fits **generative AI**, **classical ML**
•Eliminate answers that:
•Require heavy ML engineering (not in scop
•Suggest training models from scratch
•Use infrastructure-heavy services (EC2, EK
•Prefer:
•Managed AI services
•Bedrock for generative tasks
•Kendra + Bedrock RAG for retrieval needs
•Services that reduce operational burden

Slide 8 — Common Mistakes to Avoid

Assuming exam expects you to build/optimize ML models in deep detail (that is out-of-scope). d1.awsstatic.com

Confusing generative AI services vs classical ML services.

Ignoring responsible AI and governance dimensions.

Selecting services requiring heavy infrastructure when managed AWS service exists.

Slide 8 — Common Mistakes to Avoid

•Confusing Kendra (search) with Comprehend
•Selecting SageMaker when a managed gene
•Assuming exam requires ML math or hyperpa
doesn’t).
•Forgetting responsible AI concepts (major pa
•Not considering privacy, data governance, an

Slide 9 — Study Plan (2–4 Weeks)

Week 1: Fundamentals of AI/ML + Generative AI concepts + key AWS services.
Week 2: Foundation models applications, prompting, RAG, agents.
Week 3: Responsible AI practices + security/governance + in-scope AWS services hands-on.
Week 4: Practice exams, review weak areas, simulate exam conditions.
Adapt plan to your audience's prior knowledge and schedule.

Week 1:
•AI & ML fundamentals
•Generative AI concepts
•Bedrock basics and model types
Week 2:
•RAG architectures
•Kendra + Bedrock integration
•Prompt engineering
Week 3:
•Responsible AI, ethics, governance
•Security & compliance for AI systems
•Hands-on with Bedrock Playground
Week 4:
•Practice tests + scenario review
•Fill knowledge gaps (especially Responsible AI)
•Simulate the exam environment

Slide 10 — Recommended Free Resources

Official Exam Guide for AIF-C01. d1.awsstatic.com

AWS Skill Builder free modules on AI/ML, Generative AI, Foundation Models.

AWS Workshops / Hands-on labs for Amazon Bedrock, SageMaker JumpStart.

AWS Whitepapers and documentation: responsible AI, model governance.

Practice questions and flashcards (free or freemium) to identify gaps.

Official AWS AIF-C01 Exam Guide
AWS Training & Certification
📌 https://d1.awsstatic.com/training-and-certification/docs-ai-p
Certified-AI-Practitioner_Exam-Guide.pdf

- AWS Official AIF-C01 Exam Guide
- AWS Skill Builder (Generative AI Essentials)
- Amazon Bedrock Free Labs
- AWS Workshops:
- RAG
- Bedrock Agents
- Kendra search
- Whitepapers:
- Responsible AI
- Generative AI best practices
- Free practice questions (AWS re:Post & commu

2. AWS Skill Builder – Free Generative AI Courses
Includes “Generative AI Essentials for Business Leaders” and “
Generative AI with AWS”
📌 https://explore.skillbuilder.aws/learn/public/learning-plans/1
) to identify essentials learning plan

3. AWS Bedrock – Official Developer Guide
Documentation for foundation models, Knowledge Bases, Agen
📌 https://docs.aws.amazon.com/bedrock/latest/userguide/wha

4. AWS Bedrock Workshops (Free Hands-On Labs)

Slide 11 — Sample Practice Questions

Include a few exam-style questions (multiple choice / multiple response) focused on:

Generative AI model selection

Use-case scenarios (RAG, chatbots, summarization)

Responsible AI & governance

Security/compliance in AI solutions
These will help students test readiness and highlight weak areas.