

**CERTLABZ****CERTIFICATION BOARD****CLAE-001**

Certified LLM Application Engineer (CLAE)

Exam Objectives CLAE-001

About the exam

Item	Detail
Level	Advanced
Number of questions	120. A performance-based exam: each form can carry up to 5 to 12 performance-based questions alongside the multiple-choice questions.
Delivery model	Computer adaptive in 3 stages of 42, 39, 39 questions. Your score on each stage selects the difficulty of the next, so no two candidates sit the same paper.
Time limit	180 minutes
Scoring	You need a score of 700 out of 900 to pass. Results are reported on a scale of 100 to 900, and 700 corresponds to answering 72% of the exam correctly. Harder questions carry more weight, so a score means the same thing on any route. Multiple-response items and PBQs are scored all or nothing.
Delivery	Online, fully proctored (webcam, microphone and screen).
Prerequisites	No formal prerequisite. Candidates do best with one to two years of software or ML experience and 50 to 80 hours of study.
Retakes	No waiting period after a failed first attempt. Candidates pay the exam price each time they attempt the exam. See the CertLabz Certification Retake Policy at certlabz.com/certification-retake-policy.html
Validity	3 years. Renew with 75 CEUs per cycle and the \$55 annual continuing-education fee, or by passing the current exam.
Language	English
Exam voucher	\$199 for one sitting, valid 12 months. Bundles add the study guide ebook and the All Access plan.

Domain weights

Domain	Questions
D1 LLM Application Architecture (16%)	19
D2 Prompt and Context Engineering (16%)	19
D3 Agents, Tools and Orchestration (17%)	21

D4 Retrieval and Knowledge Integration (17%)

	21
D5 Evaluation, Testing and Reliability (17%)	20
D6 Security, Deployment and Operations (17%)	20
Total (100%)	120

Objectives by domain

Each objective may appear as knowledge, a scenario to judge, a circuit to trace or assemble, or a number to compute. Each form can carry up to 5 to 12 performance-based questions: drag-and-drop matching, sequencing and table completion, drawn fresh each attempt. The exam does not test any vendor's SDK syntax.

D1 LLM Application Architecture

16% 19 questions

- D1.1 When to use an LLM
- D1.2 Application layers and design
- D1.3 Right-sizing the model
- D1.4 State and memory
- D1.5 Observability and abstraction
- D1.6 Designing for failure

D2 Prompt and Context Engineering

16% 19 questions

- D2.1 System and few-shot prompts
- D2.2 Context engineering
- D2.3 Format instructions and validation
- D2.4 Versioning prompts
- D2.5 Iterating on a test set
- D2.6 Separating untrusted content

D3 Agents, Tools and Orchestration

17% 21 questions

- D3.1 Tool use and function calling
- D3.2 Agents and orchestration
- D3.3 Least-privilege tools
- D3.4 Argument and action validation
- D3.5 Step and cost limits
- D3.6 Human-in-the-loop

D4 Retrieval and Knowledge Integration

17% 21 questions

- D4.1 RAG and grounding
- D4.2 Chunking and embeddings
- D4.3 Hybrid search and reranking
- D4.4 Permission-aware retrieval
- D4.5 Conversational memory
- D4.6 Citation and freshness

D5 Evaluation, Testing and Reliability

17% 20 questions

- D5.1 Evaluation sets and metrics
- D5.2 LLM-as-judge and human review
- D5.3 Adversarial and edge cases
- D5.4 Regression testing
- D5.5 Detecting model changes
- D5.6 Balancing quality, cost and latency

D6 Security, Deployment and Operations

17% 20 questions

- D6.1 Prompt injection defense
- D6.2 Guardrails and moderation
- D6.3 Secrets and data handling
- D6.4 Cost, caching and rate limits
- D6.5 Monitoring and versioning
- D6.6 Fallbacks and output limits

Continuing education

Renewal	Requirement
Validity	3 years from the date of issue
CEUs required per cycle	75
Annual CE fee	\$55
Alternative to CEUs	Pass the current version of the exam before the expiry date

Qualifying activities

Activity	CEUs
CertLabz labs, PBQs, courses and SkillTracker assessments	1 CEU per hour, up to 25 per cycle
Other industry certifications earned or renewed	10 to 25 each, depending on level
Conferences, webinars and training	1 CEU per hour, up to 20 per cycle
AI, software or ML work experience	3 per year, up to 9 per cycle
Teaching, mentoring, publishing or open-source contributions	Up to 15 per cycle
College courses in computing or data	10 per completed course

CertLabz Certification Retake Policy

- **No waiting period after a failed first attempt:** If you fail your first attempt at any CertLabz certification examination, CertLabz does not require any waiting period between the first and second attempt.

- **Once you pass, you cannot resit the same exam code:** A candidate who has passed an exam and achieved a certification cannot take that exam again under the same exam code without prior consent from CertLabz. You will need to wait until a new series of the exam is published before attempting to recertify by examination.

- **Beta examinations, one attempt only:** A CertLabz beta examination may be taken one time by each candidate.

- **Violations invalidate the attempt:** A test found to be in violation of this policy will be invalidated, and the candidate may be subject to a suspension period. Repeat violators will be permanently banned from the CertLabz Certification Program.

- **Every attempt is paid for:** Candidates must pay the exam price each time they attempt the exam. CertLabz does not offer free retests or discounts on retakes.

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<https://certlabz.com/certifications/certified-llm-application-engineer.html>