



Certified Python Application Developer (CPAD)

Exam Objectives CPAD-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 hands-on Python 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 Python Language Core (16%)	19

D2 Data Structures, OOP and Modules (16%)

	19
D3 Standard Library and Ecosystem (17%)	21
D4 Building Applications (17%)	21
D5 Testing, Quality and Packaging (17%)	20
D6 Performance, Concurrency and Deployment (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 Python Language Core

16% 19 questions

- D1.1 Data types
- D1.2 Control flow
- D1.3 Functions
- D1.4 Comprehensions
- D1.5 Slicing and truthiness
- D1.6 Idiomatic Python

D2 Data Structures, OOP and Modules

16% 19 questions

- D2.1 Classes and inheritance
- D2.2 Dunder methods
- D2.3 Modules and packages
- D2.4 Decorators
- D2.5 Generators and iterators
- D2.6 Closures

D3 Standard Library and Ecosystem

17% 21 questions

- D3.1 Files and context managers
- D3.2 JSON and datetime
- D3.3 collections and itertools
- D3.4 Virtual environments and pip
- D3.5 Type hints
- D3.6 Exceptions

D4 Building Applications

17% 21 questions

- D4.1 Web frameworks
- D4.2 Building and consuming APIs
- D4.3 Database access
- D4.4 Configuration
- D4.5 Logging
- D4.6 Environment variables

D5 Testing, Quality and Packaging

17% 20 questions

- D5.1 Unit testing
- D5.2 Fixtures and mocking
- D5.3 Linting and formatting
- D5.4 Packaging and distribution
- D5.5 Dependency management
- D5.6 Docstrings

D6 Performance, Concurrency and Deployment

17% 20 questions

- D6.1 Async and await
- D6.2 Threading versus multiprocessing
- D6.3 Profiling
- D6.4 Secure coding
- D6.5 Deployment
- D6.6 Packaging for release

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
Software development 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.

Published by the CertLabz Certification Board, a division of CertLabz LLC. Objectives document CPAD-001.
<https://certlabz.com/certifications/certified-python-application-developer.html>