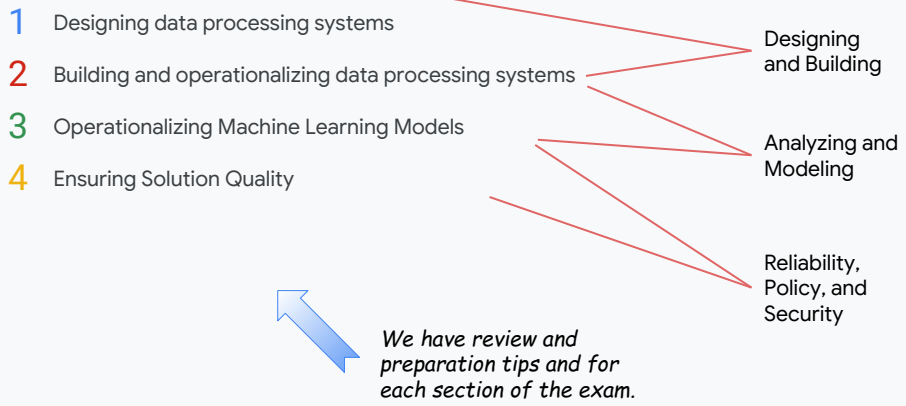


Preparing for the Professional Data Engineer Examination

Sections of the Professional Data Engineer exam



This course follows the outline of the sections of the Professional Data Engineer Exam.

There is (obviously) not enough time during this course to teach you everything necessary to pass the exam.

One goal of this course is to highlight information you may want to study to help you focus your preparation activities.

Another goal of this course is to perform activities that may be useful to you on the exam, such as reviewing the case studies.

Agenda

- 1 Understanding the Professional Data Engineer Certification
- 2 Sample case studies for the Professional Data Engineer exam
- 3 Designing and Building (Review and preparation tips)
- 4 Analyzing and Modeling (Review and preparation tips)
- 5 Reliability, Policy, and Security (Review and preparation tips)
- 6 Resources and next steps



There is a lot of ground to cover today.

You will begin by learning what the Certification is about -- where it is positioned relative to other certifications and more specifically how it is designed relative to your job role and experience in the industry.

Next you will explore the sample case studies provided to help prepare for the exam. You will spend most of the day reviewing and getting preparation tips in specific subject areas.

And at the end you will get pointers to resources and next steps to continue your preparation.

I think it seems pretty obvious from this list, but it should be called out that you can't learn everything you need to know for the certification exam in one day or from a single class. So the goal here is to help you prepare. But you won't be able to pass the exam based only on attending this class.

By the end of this class, if you have already been preparing for the examination, you will have a good sense of what else you need to study or do to prepare or whether you are ready to give it a shot!

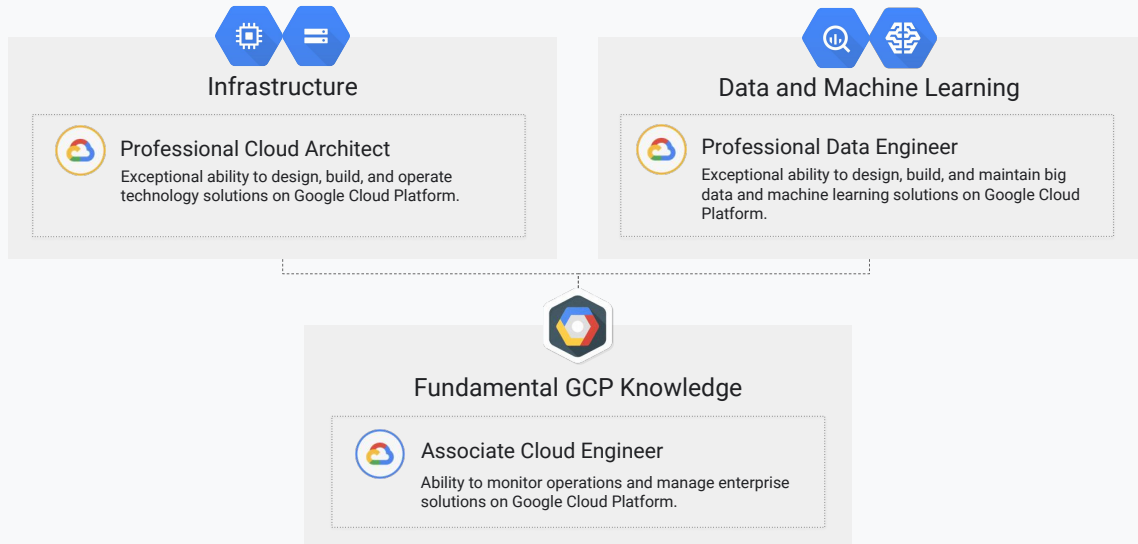
Understanding the Professional Data Engineer Certification

The main thing you need to know about the Professional Data Engineer Certification is that it isn't a theoretical test. This certification has been designed to confirm the skills required of a practitioner. Specifically, it tests whether you know how to do the job of a Data Engineer, not just whether you know general information.

Look—that means the certification is going to be more challenging than other certifications you may have heard about, that only test on information. But it also means that the certification means something—and that is one reason it is valued in the industry. The practical nature of the exam makes it challenging, but also makes it valuable.

And with the experience you will have in this course, hopefully you will see it is not too challenging but more fun and exciting because it DOES reflect real-world cases and experience.

What certs does Google offer for GCP?

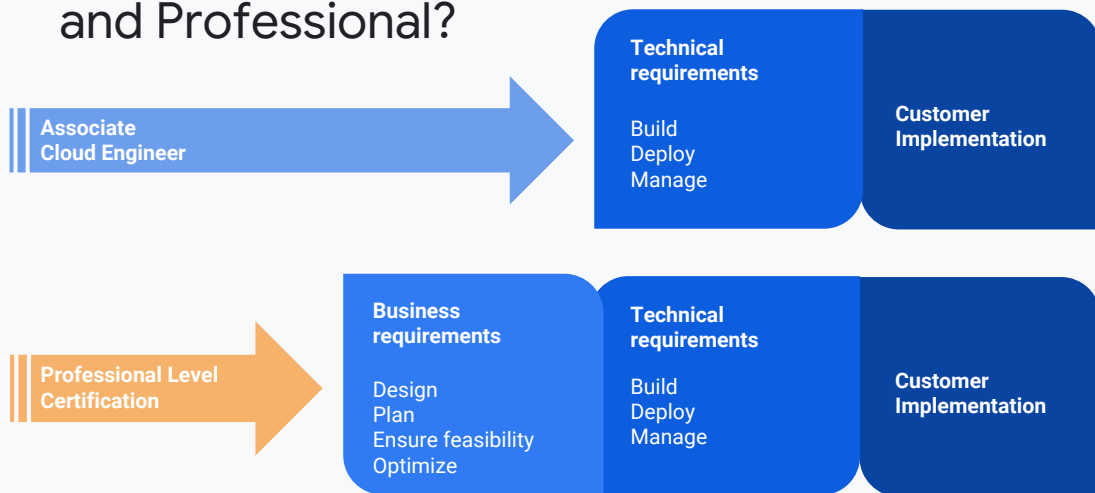


I just want to caution you that the Associate Cloud Engineer is not a simpler and easier Data Engineer exam or Cloud Architect exam.

All of these certifications are based on real-world practical job skills required and used by practitioners in the industry.

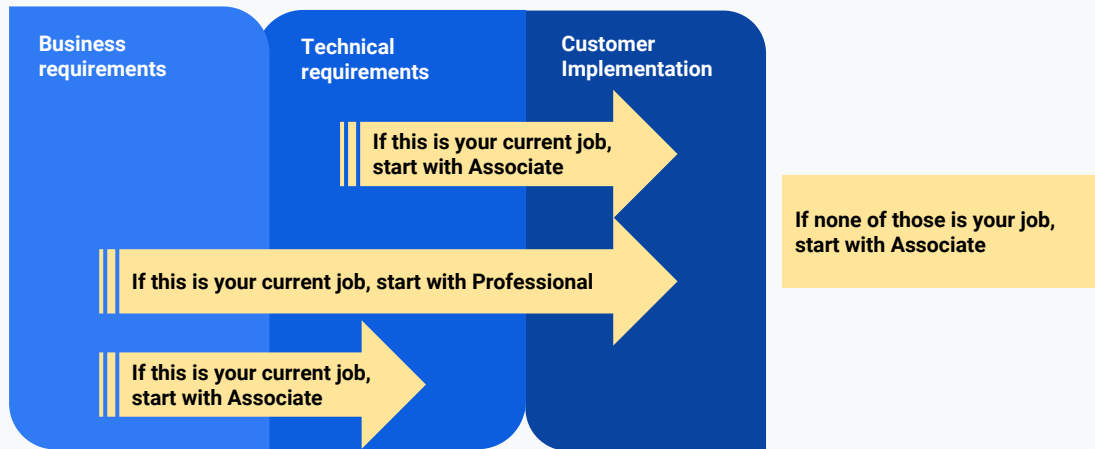
So, which certification or certifications you might want depends on your job role—the job you have or the job you want to have.

What's the difference between Associate and Professional?



In addition to the business requirements, there are differences in the technical requirements. For example, a Cloud Engineer might need more practice operating and maintaining a solution, whereas a Data Engineer might need to know more about how different solution options will change how the solution is operated and maintained. They are the same technical skills, but seen from a different perspective.

Should I start with Associate Cloud Engineer or Professional Cloud Architect?



Here is some direct advice to help you decide where to start. If your job focuses mainly on Business requirements and not on implementation, or if your job does not focus on Business requirements but only on Technical requirements, start with the Associate Cloud Engineer certification (ACE). If your job involves all three, Business Requirements, Technical Requirements, and Implementation, start with the Professional Data Engineer certification. And if your job is not associated with any of these, start with ACE.

How is the Professional Data Engineer exam administered?

- Visit <https://cloud.google.com/certification/data-engineer> for more info and to register.
- Exam length: 2 hours
- Exam cost: US \$200
- Available globally [Must be taken in person at a Kryterion testing center]
- If you are a Google partner, be sure to **register with your partner domain**.
- You may need to create a new Webassessor account if you do not already have one for Google Cloud certifications.



The exam is \$200 in the US, about 2 hours, and taken in person.

No scratch paper or pen; no notes.

No drinks.

Bathroom breaks are allowed, but the clock keeps ticking.

Many people report that they use the complete two hours.

Tips and tricks

First, draw on your own personal experience.
Review the Exam Guides.
Take the practice test.

Pace Yourself; there is a timer.

If you are concerned about time, run through the exam and answer the shortest, easiest questions first. Go back to the ones that are more difficult or require multiple answers (there is no partial credit!).



Tips Document:

- Practice, practice, practice. Become familiar with the style of testing and comfortable with being timed.
- **Pace yourself. Calculate the amount of time you have to answer each question and avoid getting bogged down on any one question.**
- If you're stuck on a question, move on to the next question. You can always return to the question later.
- **If you are concerned about time, run through the exam and answer the shortest, easiest questions first. Go back to the ones that are more difficult or require multiple answers (there is no partial credit!).**
- If you have time left over at the end of the exam, review your answers. Only change your answer if you are 100% certain you made an error. Don't second-guess yourself!
- Make an educated guess: for multiple choice questions, eliminate any answers that you know are incorrect and make a guess.
- Consider all of the answer choices before writing down your final answer. If one of the answers is an all-of-the-above choice, make sure there isn't more than one correct answer. If you've identified at least two correct answers, choose the all-of-the-above response.
- **Read each question as if you had to answer it without choosing from a list of alternative answers.**
- Read the stem with each option.
- Treat each option as a true-false question, and choose the "most true."
- Get some sleep the night before and eat a good, high-protein breakfast :)

Testing strategy

What if you leave an item blank?

You can't take notes during the exam.

You can mark items for later review.

No breaks (clock continues).

No food or drink.

Answer each question. Mark those you are unsure about.


Review unanswered questions and unsure questions.

Review answered questions and make sure they still seem right.



Should you guess or are you better off leaving an item blank?
There is no advantage to leaving a question unanswered.

Tip...



Use everything you know to sort out exactly what is being asked and surface which information is important.

Many of the tips you will learn about today are intended to help you sort out the case information and identify the core question.

That is not just an exam-taking skill. It is part of the skills required of a Professional Data Engineer.

<https://pixabay.com/en/solve-jigsaw-problem-concept-2636254/>

Key tip for DE



Think of Data Engineering on GCP as a *platform*. There are many alternative solutions that *could* work. Narrow the options down to the one that best meets the business and technical requirements.



<https://pixabay.com/en/brush-color-colorful-painting-red-3068340/>

More key tips for DE

For every technology:

- When to use it
- How to control access
- How to manage performance
- Data distribution strategies
- Key features



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