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## Preparing for the Professional Data Engineer Examination

**Duration: 1 Day    Course Code: GO9071    Delivery Method: Company Event**

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### Overview:

This full-day instructor-led course helps prospective candidates structure their preparation for the Professional Data Engineer exam. The session will cover the structure and format of the examination, as well as its relationship to other Google Cloud certifications. Through lectures, quizzes, and discussions, candidates will familiarize themselves with the domain covered by the examination, so as to help them devise a preparation strategy. Rehearses useful skills including exam question reasoning and case comprehension. Tips. Review of topics from the Data Engineering curriculum.

#### Company Events:

These events can be delivered exclusively for your company at one of our training centres or at your own location, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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### Target Audience:

This course is intended for the following participants: Cloud professionals interested in taking the Data Engineer certification exam. Data engineering professionals interested in taking the Data Engineer certification exam. To get the most out of this course, participants be familiar with Google Cloud Platform to the level of the Data Engineering on Google Cloud Platform course (suggested, not required)

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### Objectives:

- The learning outcomes are:
    - Position the Professional Data Engineer Certification
    - Provide information, tips, and advice on taking the exam
  - Review the sample case studies
  - Review each section of the exam covering highest-level concepts sufficient to build confidence in what is known by the candidate and indicate skill gaps/areas of study if not known by the candidate
  - Connect candidates to appropriate target learning
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### Prerequisites:

This course is intended for the following participants:

- Cloud professionals interested in taking the Data Engineer certification exam.
- Data engineering professionals interested in taking the Data Engineer certification exam.

To get the most out of this course, participants should be familiar with Google Cloud Platform to the level of the Data Engineering on Google Cloud Platform course (suggested, not required)

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## Content:

### Module 1: Understanding the Professional Data Engineer Certification

Establish basic knowledge about the certification exam and eliminate any confusion or misunderstandings about the process and nature of the exam itself. Topics covered:

- Position the Professional Data Engineer certification among the offerings
- Distinguish between Associate and Professional
- Provide guidance between Professional Data Engineer and Associate Cloud Engineer
- Describe how the exam is administered and the exam rules
- Provide general advice about taking the exam

### Module 2: Sample Case Studies for the Professional Data Engineer Exam

In-depth review of the Case Studies provided for exam preparation. Topics covered:

- Flowlogic
- MJTelco

### Module 3: Designing and Building (Review and preparation tips)

Tips and examples covering data processing systems design skills, data structures, and database skills that could be tested on the exam. Topics covered:

- Designing data processing systems
- Designing flexible data representations
- Designing data pipelines
- Designing data processing infrastructure
- Build and maintain data structures and databases
- Building and maintaining flexible data representations
- Building and maintaining pipelines
- Building and maintaining processing infrastructure

### Module 4: Analyzing and Modeling (Review and preparation tips)

Tips and examples covering data analysis, analysis and optimization of business processes, and machine learning skills that could be tested on the exam. Topics covered:

- Analyze data and enable machine learning
- Analyzing data
- Machine learning
- Machine learning model deployment
- Model business processes for analysis and optimization
- Mapping business requirements to data representations
- Optimizing data representations, data infrastructure performance and cost

### Module 5: Reliability, Policy, and Security (Review and preparation tips)

Tips and examples covering reliability, policies, security, and compliance skills that could be tested on the exam. Topics covered:

- Design for reliability
- Performing quality control
- Assessing, troubleshooting, and improving data representation and data processing infrastructure
- Recovering data
- Visualize data and advocate policy
- Building (or selecting) data visualization and reporting tools
- Advocating policies and publishing data and reports
- Design for security and compliance
- Designing secure data infrastructure and processes
- Designing for legal compliance

### Module 6: Resources and next steps

Resources for learning more about identified subjects that could be tested on the exam. Topics covered:

- Resources for learning more about designing data processing systems, data structures, and databases
- Resources for learning more about data analysis, machine learning, business process analysis, and optimization
- Resources for learning more about data visualization and policy Resources for learning more about reliability design
- Resources for learning more about business process analysis and optimization
- Resources for learning more about reliability, policies, security, and compliance

## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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