

## **GCP - Professional Database Engineer Certification preparation - important links**

<http://www.pgouncer.org/>

<https://cloud.google.com/architecture/autoscaling-cloud-spanner>

<https://cloud.google.com/architecture/autoscaling-cloud-spanner#autoscaler>

[https://cloud.google.com/architecture/autoscaling-cloud-spanner#different\\_scaling\\_methods\\_for\\_different\\_workloads](https://cloud.google.com/architecture/autoscaling-cloud-spanner#different_scaling_methods_for_different_workloads)

<https://cloud.google.com/architecture/best-practices-cloud-spanner-gaming-database>

[https://cloud.google.com/architecture/building-scalable-apps-with-cloud-firestore#offline\\_data\\_persistence](https://cloud.google.com/architecture/building-scalable-apps-with-cloud-firestore#offline_data_persistence)

<https://cloud.google.com/architecture/framework/security/privacy>

<https://cloud.google.com/architecture/migrating-postgresql-to-gcp>

<https://cloud.google.com/backup-disaster-recovery/docs/create-plan/oracle-advanced-settings>

<https://cloud.google.com/bare-metal>

<https://cloud.google.com/bare-metal/docs/bms-planning>

<https://cloud.google.com/bare-metal/docs/bms-setup#bms-access-internet-vm-nat>

<https://cloud.google.com/bigtable/docs/app-profiles>

<https://cloud.google.com/bigtable/docs/choosing-ssd-hdd>

<https://cloud.google.com/bigtable/docs/keyvis-overview>

<https://cloud.google.com/bigtable/docs/replication-settings>

<https://cloud.google.com/bigtable/docs/schema-design>

<https://cloud.google.com/blog/products/databases/announcing-cloud-firestore-general-availability-and-updates#:~:text=SLA%20now%20available.%20You%20can%20now%20take%20advantage%20of%20Cloud%20Firestore%E2%80%99s%20SLA%3A%2099.999%25%20availability%20for%20multi%2Dregion%20instances%20and%2099.99%25%20availability%20for%20regional%20instances.>

<https://cloud.google.com/blog/products/databases/cloud-database-scales-instance-sizes-easily>

<https://cloud.google.com/blog/products/databases/migrate-databases-to-google-cloud-vmware-engine-gcve>

<https://cloud.google.com/blog/products/databases/sqlcommenter-merges-with-opentelemetry>

<https://cloud.google.com/blog/products/storage-data-transfer/google-enters-agreement-to-acquire-actifio>

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<https://cloud.google.com/blog/topics/developers-practitioners/demystifying-cloud-spanner-multi-region-configurations>

<https://cloud.google.com/blog/topics/developers-practitioners/preparing-postgresql-migration-database-migration-service>

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<https://cloud.google.com/blog/topics/developers-practitioners/your-google-cloud-database-options-explained>  
<https://cloud.google.com/community/tutorials/horizontally-scale-mysql-database-backend-with-google-cloud-sql-and-proxysql>  
<https://cloud.google.com/compute/docs/disks>

<https://cloud.google.com/compute/docs/disks/high-availability-regional-persistent-disk>  
<https://cloud.google.com/compute/docs/disks/performance>  
<https://cloud.google.com/database-migration>  
<https://cloud.google.com/database-migration/docs/mysql/configure-source-database>  
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<https://cloud.google.com/database-migration/docs/mysql/mysql-dump>  
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<https://cloud.google.com/datastream>  
<https://cloud.google.com/docs/security/encryption/customer-supplied-encryption-keys>  
[https://cloud.google.com/firestore/docs/manage-data/enable-offline#configure\\_offline\\_persistence](https://cloud.google.com/firestore/docs/manage-data/enable-offline#configure_offline_persistence)  
<https://cloud.google.com/firestore/docs/solutions/schedule-export>  
<https://cloud.google.com/iam/docs/understanding-roles#spanner.databaseUser>  
<https://cloud.google.com/kms/docs/cmek>  
<https://cloud.google.com/nat/docs/overview#:~:text=Cloud%20NAT%20is%20a%20distributed,VMs%20without%20external%20IP%20addresses.>  
<https://cloud.google.com/sdk/gcloud/reference/sql>  
<https://cloud.google.com/sdk/gcloud/reference/sql/instances/patch>

<https://cloud.google.com/sdk/gcloud/reference/sql/instances/patch#:~:text=existing%20authorized%20networks.-,%2D%2Dcpu%3DCPU,machine%20type%20is%20desired%2C%20and%20the%20%2D%2Dtier%20flag%20must%20be%20omitted.,-%2D%2Ddatabase%2Dversion%3D>  
<https://cloud.google.com/solutions/cloud-sql-mysql-disaster-recovery-complete-failover-fallback>  
<https://cloud.google.com/solutions/implementing-multi-tenancy-cloud-spanner>  
<https://cloud.google.com/solutions/implementing-multi-tenancy-cloud-spanner#instance>  
<https://cloud.google.com/spanner/docs/backup>  
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<https://cloud.google.com/spanner/docs/cpu-utilization#reduce>  
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<https://cloud.google.com/spanner/docs/instance-configurations>

[https://cloud.google.com/spanner/docs/instance-configurations#configuring\\_the\\_default\\_leader\\_region](https://cloud.google.com/spanner/docs/instance-configurations#configuring_the_default_leader_region)  
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[https://cloud.google.com/spanner/docs/introspection/read-statistics#when\\_to\\_use\\_read\\_statistics](https://cloud.google.com/spanner/docs/introspection/read-statistics#when_to_use_read_statistics)  
<https://cloud.google.com/spanner/docs/key-visualizer>  
<https://cloud.google.com/spanner/docs/migrating-mysql-to-spanner>  
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<https://cloud.google.com/spanner/docs/replication>  
<https://cloud.google.com/spanner/docs/schema-and-data-model>  
[https://cloud.google.com/spanner/docs/schema-and-data-model#choosing\\_a\\_primary\\_key](https://cloud.google.com/spanner/docs/schema-and-data-model#choosing_a_primary_key)  
<https://cloud.google.com/spanner/docs/schema-design>  
<https://cloud.google.com/spanner/docs/sql-best-practices>  
<https://cloud.google.com/spanner/docs/sql-best-practices#query-parameters>  
<https://cloud.google.com/spanner/docs/using-query-insights>

<https://cloud.google.com/spanner/docs/whitepapers/life-of-reads-and-writes#aside-distributed-file-systems>  
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<https://cloud.google.com/sql/docs/mysql/admin-api/metrics>  
<https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/instances/export>  
<https://cloud.google.com/sql/docs/mysql/backup-recovery/backups>  
<https://cloud.google.com/sql/docs/mysql/backup-recovery/pitr>  
[https://cloud.google.com/sql/docs/mysql/backup-recovery/pitr#perform\\_the\\_point-in-time\\_recovery\\_using\\_binary\\_log\\_positions](https://cloud.google.com/sql/docs/mysql/backup-recovery/pitr#perform_the_point-in-time_recovery_using_binary_log_positions)  
<https://cloud.google.com/sql/docs/mysql/backup-recovery/restore>  
<https://cloud.google.com/sql/docs/mysql/best-practices>  
<https://cloud.google.com/sql/docs/mysql/best-practices#data-arch>  
<https://cloud.google.com/sql/docs/mysql/cmek>  
<https://cloud.google.com/sql/docs/mysql/configure-private-ip>  
<https://cloud.google.com/sql/docs/mysql/configure-private-services-access>  
<https://cloud.google.com/sql/docs/mysql/connect-admin-proxy>  
<https://cloud.google.com/sql/docs/mysql/connect-admin-proxy#troubleshooting:~:text=If%20you%20are%20getting,have%20this%20permission.>

<https://cloud.google.com/sql/docs/mysql/connect-overview>  
<https://cloud.google.com/sql/docs/mysql/connect-run>  
<https://cloud.google.com/sql/docs/mysql/connect-run#best-practices>  
<https://cloud.google.com/sql/docs/mysql/connect-run#connection-pools>  
<https://cloud.google.com/sql/docs/mysql/error-messages>  
<https://cloud.google.com/sql/docs/mysql/high-availability>  
<https://cloud.google.com/sql/docs/mysql/high-availability#backups-and-restores>  
<https://cloud.google.com/sql/docs/mysql/high-availability#HA-configuration>  
<https://cloud.google.com/sql/docs/mysql/iam-roles>  
<https://cloud.google.com/sql/docs/mysql/import-export>  
<https://cloud.google.com/sql/docs/mysql/import-export#serverless>

<https://cloud.google.com/sql/docs/mysql/import-export/import-export-csv#rest-v1>  
<https://cloud.google.com/sql/docs/mysql/import-export/import-export-sql>  
<https://cloud.google.com/sql/docs/mysql/intro-to-cloud-sql-disaster-recovery>  
<https://cloud.google.com/sql/docs/mysql/maintenance>  
[https://cloud.google.com/sql/docs/mysql/maintenance#maintenance\\_example](https://cloud.google.com/sql/docs/mysql/maintenance#maintenance_example)  
<https://cloud.google.com/sql/docs/mysql/recommender-sql-overprovisioned>  
<https://cloud.google.com/sql/docs/mysql/replication>  
<https://cloud.google.com/sql/docs/mysql/replication#external-read-replicas>  
<https://cloud.google.com/sql/docs/mysql/replication#external-read-replicas:~:text=When%20referring%20to%20an,source%20representation%20instance.>  
[https://cloud.google.com/sql/docs/mysql/replication#replication\\_use\\_cases](https://cloud.google.com/sql/docs/mysql/replication#replication_use_cases)  
<https://cloud.google.com/sql/docs/mysql/replication/external-server>  
<https://cloud.google.com/sql/docs/mysql/replication/manage-replicas#:~:text=Replication%20lag%20is%20consistently,Find%20and%20fix%20them.>

<https://cloud.google.com/sql/docs/mysql/replication/manage-replicas#configuring-parallel-replication>  
[https://cloud.google.com/sql/docs/mysql/using-ood-recommender#how\\_it\\_works](https://cloud.google.com/sql/docs/mysql/using-ood-recommender#how_it_works)  
<https://cloud.google.com/sql/docs/postgres/backup-recovery/backups#troubleshooting-backups>  
<https://cloud.google.com/sql/docs/postgres/backup-recovery/pitr#gcloud>  
<https://cloud.google.com/sql/docs/postgres/connect-admin-proxy#tcp-sockets>  
<https://cloud.google.com/sql/docs/postgres/error-messages>  
<https://cloud.google.com/sql/docs/postgres/high-availability>  
<https://cloud.google.com/sql/docs/postgres/high-availability#failover-overview>  
<https://cloud.google.com/sql/docs/postgres/import-export#serverless>  
<https://cloud.google.com/sql/docs/postgres/import-export/checking-status-import-export>  
<https://cloud.google.com/sql/docs/postgres/import-export/import-export-sql#rest-v1>  
<https://cloud.google.com/sql/docs/postgres/replication/cross-region-replicas>  
[https://cloud.google.com/sql/docs/postgres/sql-proxy?utm\\_source=codelabs&utm\\_medium=et&utm\\_campaign=CDR\\_jkl\\_databases\\_cloudsqlinsights\\_codelab\\_012821&utm\\_content=-](https://cloud.google.com/sql/docs/postgres/sql-proxy?utm_source=codelabs&utm_medium=et&utm_campaign=CDR_jkl_databases_cloudsqlinsights_codelab_012821&utm_content=-)  
<https://cloud.google.com/sql/docs/postgres/using-query-insights>  
<https://cloud.google.com/sql/docs/sqlserver/error-messages>  
<https://cloud.google.com/sql/docs/sqlserver/maintenance#management>  
[https://cloud.google.com/sql/faq#rr\\_lb](https://cloud.google.com/sql/faq#rr_lb)  
<https://cloud.google.com/vmware-engine>  
<https://cloud.google.com/vpc/docs/private-service-connect>  
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<https://cloud.google.com/vpc/docs/vpc-peering>  
<https://codelabs.developers.google.com/?product=cloudsql>

<https://codelabs.developers.google.com/codelabs/cloud-sql-insights-intro#0>  
<https://dev.mysql.com/doc/refman/8.0/en/mysql.html>  
<https://dev.mysql.com/doc/refman/8.0/en/mysqldump.html>  
[https://docs.oracle.com/cd/E11882\\_01/backup.112/e10642/rcmquick.htm#BRADV89346](https://docs.oracle.com/cd/E11882_01/backup.112/e10642/rcmquick.htm#BRADV89346)  
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<https://dzone.com/articles/60-top-postgresql-tools>

[https://en.wikipedia.org/wiki/File:RPO\\_RTO\\_example\\_converted.png](https://en.wikipedia.org/wiki/File:RPO_RTO_example_converted.png)  
<https://medium.com/@amarachi.ogu/migrating-a-self-managed-database-to-cloud-sql-6af1ddcc0706>  
<https://medium.com/@amarachi.ogu/migrating-to-cloud-sql-using-google-cloud-database-migration-service-b3d7b6a0a8f>  
<https://research.google/pubs/pub39966/>  
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[https://services.google.com/fh/files/misc/migrating\\_your\\_databases\\_to\\_managed\\_services\\_on\\_google\\_cloud.pdf](https://services.google.com/fh/files/misc/migrating_your_databases_to_managed_services_on_google_cloud.pdf)  
<https://severalnines.com/blog/how-achieve-postgresql-high-availability-pgbouncer/>  
<https://storage.googleapis.com/pub-tools-public-publication-data/pdf/45855.pdf>  
[https://support.google.com/docs/answer/12022089?visit\\_id=638077992382133597-3537508732&p=unrecognized\\_words&rd=1#unrecognized\\_words&zippy=%2Cabout-unrecognized-words](https://support.google.com/docs/answer/12022089?visit_id=638077992382133597-3537508732&p=unrecognized_words&rd=1#unrecognized_words&zippy=%2Cabout-unrecognized-words)  
<https://thedataguy.in/internals-of-google-cloud-spanner/>  
[https://weidongzhou.files.wordpress.com/2017/06/gcp\\_storage\\_option\\_tree.jpg?w=640](https://weidongzhou.files.wordpress.com/2017/06/gcp_storage_option_tree.jpg?w=640)  
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<https://www.postgresql.org/docs/current/app-pgdump.html>