Creating instances

MySQL (https://cloud.google.com/sql/docs/mysql/create-instance) | PostgreSQL (https://cloud.google.com/sql/docs/postgres/create-instance) | **SQL Server**

Beta

This feature is in a pre-release state and might change or have limited support. For more information, see the product launch stages (https://cloud.google.com/products/#product-launch-stages).

This page describes how to create a Cloud SQL for SQL Server instance.

For detailed information about all instance settings, see Instance Settings (https://cloud.google.com/sql/docs/sqlserver/instance-settings).

Creating an instance

CONSOLE GCLOUD CURL

1. Go to the Cloud SQL Instances page in the Google Cloud Console.
   GO TO THE CLOUD SQL INSTANCES PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/SQL/INSTANC
2. Click **Create instance**.
3. Select **SQL Server** and click **Next**.
4. Enter a name.
   Do not include sensitive or personally identifiable information in your instance name; it is externally visible.
   You do not need to include the project ID in the instance name. This is done automatically where appropriate (for example, in the log files).
5. Enter a password for the user.
6. Under **Configuration options**, update any other settings you need for your instance:

Setting	Notes
Database version	
Database version	**SQL Server 2017 Standard** (default) **SQL Server 2017 Enterprise** **SQL Server 2017 Express** **SQL Server 2017 Web**
Connectivity	
Private IP	Configures private IP connectivity for your instance. Learn more (https://cloud.google.com/sql/docs/sqlserver/configure-private-ip).
Public IP	Adds a public IPv4 address for your instance. Learn more (https://cloud.google.com/sql/docs/sqlserver/configure-ip).
Machine type and storage	
Cores	The number of vCPUs for your instance. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#cpus) .
Memory	The amount of memory for your instance, in GiBs. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#memory) .
Storage type	Indicates that your instance uses SSD storage. All SQL Server instances use SSD storage. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#storage-type-2ndgen) .
Storage capacity	The amount of storage provisioned for the instance. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#storage-capacity-2ndgen) .
Automatic storage increase	Determines whether Cloud SQL automatically provides more storage for your instance when free space runs low. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#automatic-storage-increase-2ndgen) .

Setting	Notes
Automatic backups and high availability	
High availability	If you need your instance to be configured for high availability, you must select the **High availability (regional)** option. Learn more (https://cloud.google.com/sql/docs/sqlserver/high-availability).
Automatic backups	The window of time when you would like backups to start.
Authorized networks	
Database flags	
Database flags	You can use database flags to control settings and parameters for your instance. Learn more (https://cloud.google.com/sql/docs/sqlserver/flags).
Maintenance schedule	
Maintenance window	Determines a one-hour window when Cloud SQL can perform disruptive maintenance on your instance. If you do not set the window, then disruptive maintenance can be done at any time. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#maintenance-window-2ndgen) .
Maintenance timing	Your preferred timing for instance updates, relative to other instances in the same project. Learn more (https://cloud.google.com/sql/docs/sqlserver/instance-settings#maintenance-timing-2ndgen) .

7. Click **Create**.
8. After the instance finishes initializing, click the instance name to open it.

Sample machine types

With custom machine types, you can configure your instance with the amount of memory and CPUs that it needs. However, there are some restrictions on these values:

- vCPUs must be either 1 or an even number between 2 and 64.

- Memory must be:
  - 0.9 to 6.5 GiB per vCPU
  - A multiple of 256 MiB
  - At least 3.75 GiB (3840 MiB)

Here are some sample machine type values, based on the predefined machine types available for SQL Server instances:

Predefined machine type	vCPUs	Memory (MiBs)	API tier string
db-n1-standard-1	1	3840	db-custom-1-3840
db-n1-standard-2	2	7680	db-custom-2-7680
db-n1-standard-4	4	15360	db-custom-4-15360
db-n1-standard-8	8	30720	db-custom-8-30720
db-n1-standard-16	16	61440	db-custom-16-61440
db-n1-standard-32	32	122880	db-custom-32-122880
db-n1-standard-64	64	245760	db-custom-64-245760
db-n1-highmem-2	2	13312	db-custom-2-13312
db-n1-highmem-4	4	26624	db-custom-4-26624
db-n1-highmem-8	8	53248	db-custom-8-53248
db-n1-highmem-16	16	106496	db-custom-16-106496
db-n1-highmem-32	32	212992	db-custom-32-212992
db-n1-highmem-64	64	425984	db-custom-64-425984

What's next

- Configure access to the instance (https://cloud.google.com/sql/docs/sqlserver/instance-access-control).

- Connect to the instance with a sqlcmd client (https://cloud.google.com/sql/docs/sqlserver/connect-admin-ip).
- Create a database on the instance (https://cloud.google.com/sql/docs/sqlserver/create-manage-databases).
- Import data into the instance (https://cloud.google.com/sql/docs/sqlserver/import-export/importing).
- Create users on the instance (https://cloud.google.com/sql/docs/sqlserver/create-manage-users).
- Learn more about instance settings (https://cloud.google.com/sql/docs/sqlserver/instance-settings).
