

Cockroach DB Connection

Step-1: Download CockroachDB(LINK)

Version **v23.1.2** ▼

Install CockroachDB on Windows



See [Release Notes](#) for what's new in the latest release, v23.1.2. To upgrade to this release from an older version, see [Cluster Upgrade](#).

Tip:

To deploy a free CockroachDB Cloud cluster instead of running CockroachDB yourself, see the [Quickstart](#).

Use one of the options below to install CockroachDB.

Download the executable

Warning:

The CockroachDB executable for Windows is experimental and not suitable for production deployments. Windows 8 or higher is required.

1. Use PowerShell to download the [CockroachDB v23.1.2 archive for Windows](#) and copy the binary into your PATH:

Step-2: Unzip cockroachDB.zip file

Step-3: Move cockroachDB folder to

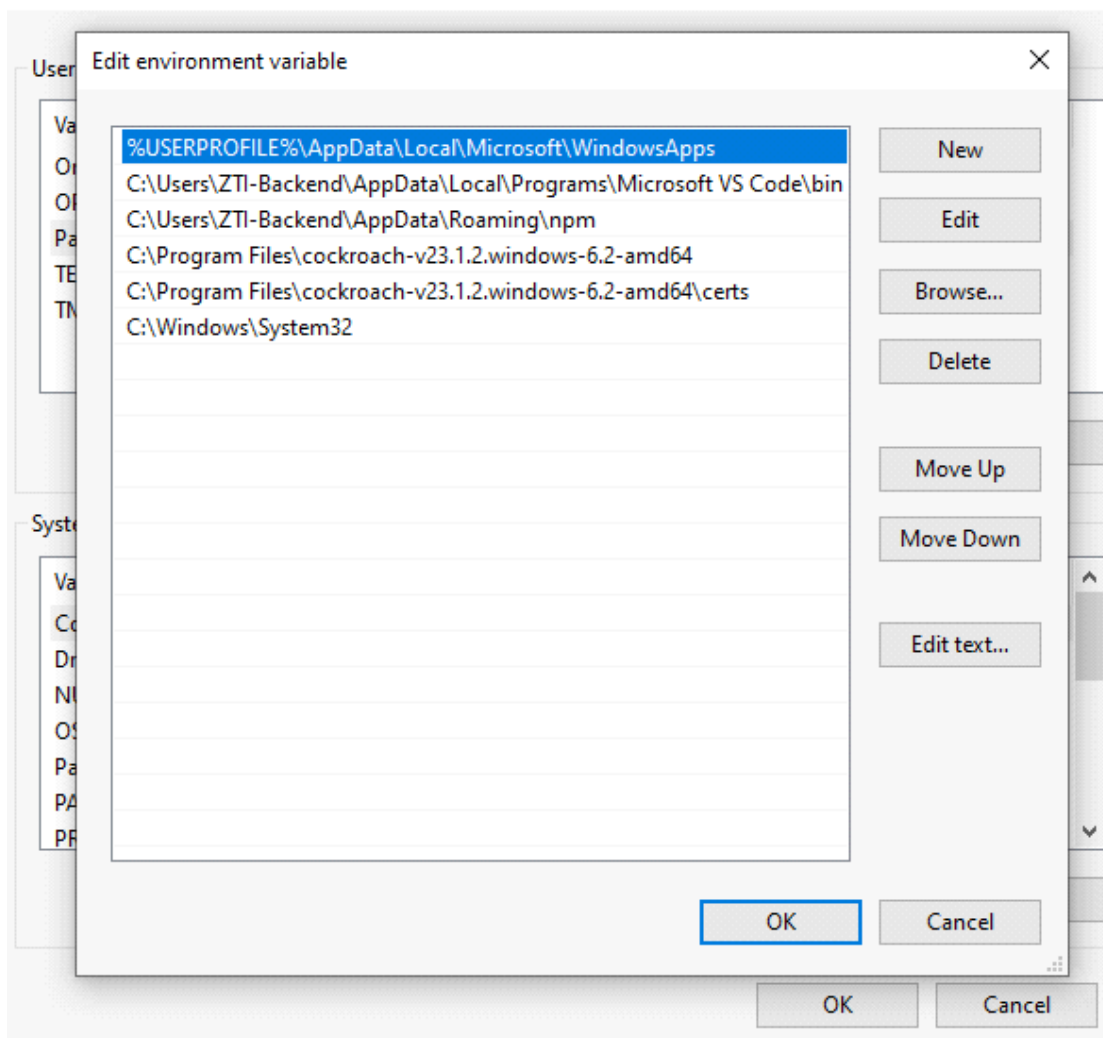
i. C:/Program Files/cockroachDB

Step-4: Set this two below paths into **environment variable**

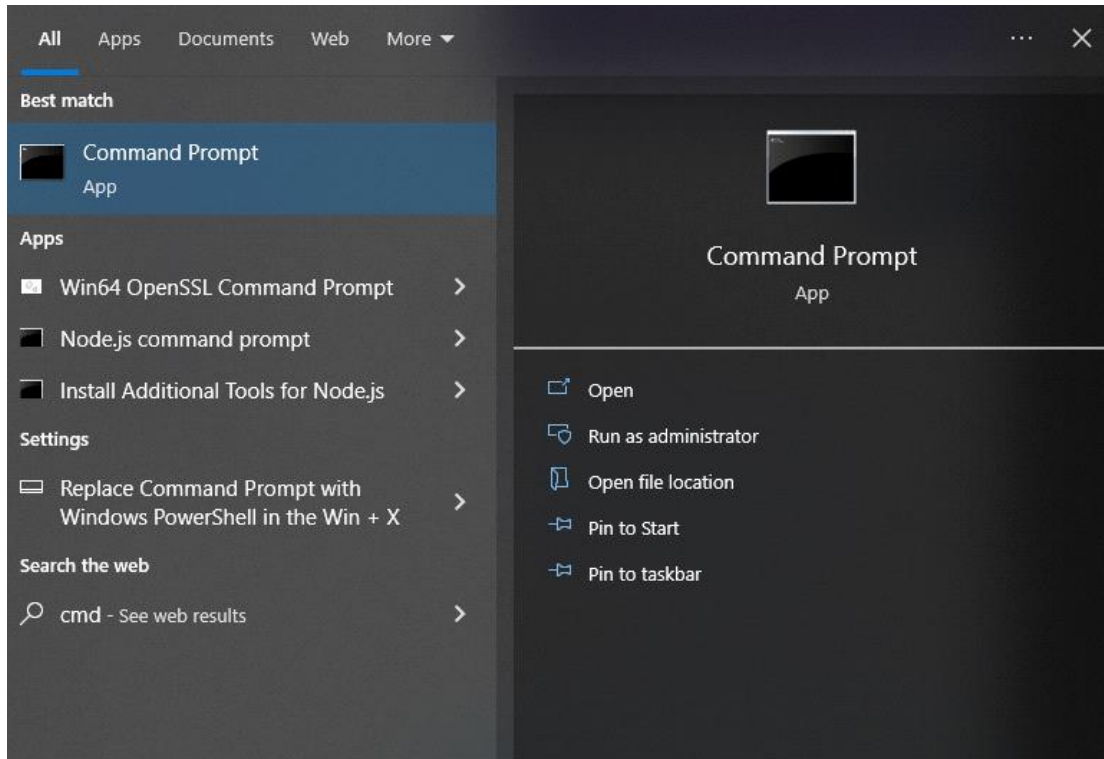
i. C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64

ii. C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\certs

Environment Variables



Step-5: Open **cmd** as run as Administrator



Step-6: Open below path in cmd

- i. C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64

Step-7: Run below commands in cmd(Link)

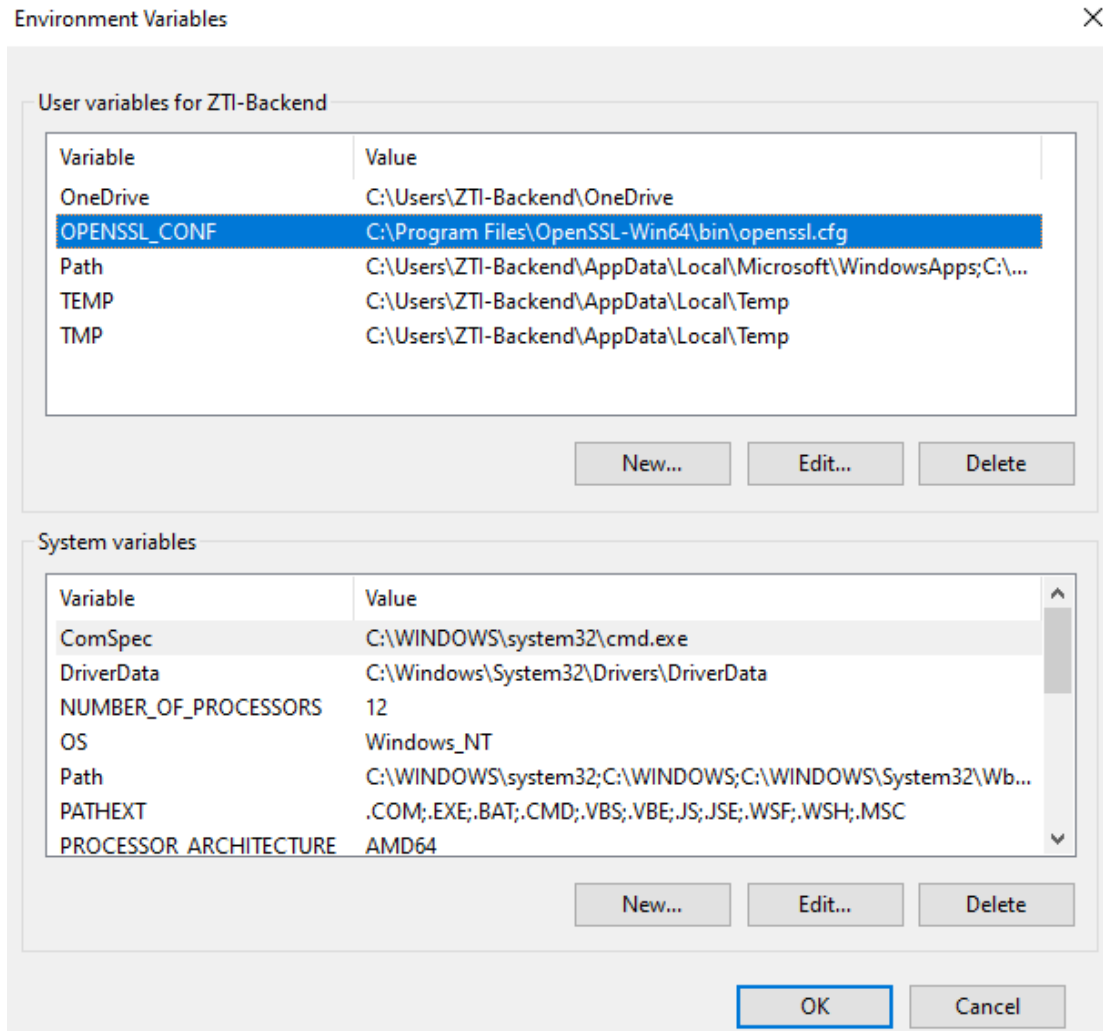
- i. `mkdir certs my-safe-directory`
- ii. `cockroach cert create-ca --certs-dir=certs --ca-key=my-safe-directory/ca.key`
- iii. `cockroach cert create-node localhost $(hostname) --certs-dir=certs --ca-key=my-safe-directory/ca.key`
- iv. `cockroach cert create-client root --certs-dir=certs --ca-key=my-safe-directory/ca.key`

Step-8: Download OpenSSL (Link)

Step-9: Move openssl folder to

- i. C:\Program Files

Step-10: if openssl path automatically set in environment variables then no worry but if not then set like this



Step-11: Open openssl folder to run openssl command

Name	Date modified	Type	Size
bin	29-05-2023 15:00	File folder	
exp	29-05-2023 15:00	File folder	
include	29-05-2023 15:01	File folder	
lib	29-05-2023 15:00	File folder	
tests	29-05-2023 15:01	File folder	
acknowledgements	14-03-2023 10:42	Text Document	1 KB
authors	14-03-2023 10:42	Text Document	2 KB
c_rehash	14-03-2023 10:42	Perl Source File	7 KB
changes	14-03-2023 10:42	Text Document	749 KB
faq	14-03-2023 10:42	Text Document	1 KB
libcrypto-3-x64.dll	14-03-2023 10:42	Application exten...	5,940 KB
libssl-3-x64.dll	14-03-2023 10:42	Application exten...	760 KB
license	14-03-2023 10:42	Text Document	11 KB
news	14-03-2023 10:42	Text Document	73 KB
readme	14-03-2023 10:42	Text Document	7 KB
start	14-03-2023 10:42	Windows Batch File	1 KB
unins000.dat	29-05-2023 15:01	DAT File	159 KB
unins000	29-05-2023 15:00	Application	714 KB

```

Win64 OpenSSL Command Prompt
Win64 OpenSSL Command Prompt
OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
built on: Tue Mar 14 15:56:12 2023 UTC
platform: VC-WIN64A
options: bn(64,64)
compiler: cl /Z7 /Fdssl_static.pdb /Gs0 /GF /Gy /MD /W3 /wd4090 /nologo /O2 -DL_ENDIAN -DOPENSSL_PIC -D_USING_V110_SDK71_ -D_WINSOCK_DEPRECATED_NO_WARNINGS -D_WIN32_WINNT=0x0502
OPENSSLDIR: "C:\Program Files\Common Files\SSL"
ENGINESDIR: "C:\Program Files\OpenSSL\lib\engines-3"
MODULESDIR: "C:\Program Files\OpenSSL\lib\ossl-modules"
Seeding source: os-specific
CPUINFO: OPENSSL_ia32cap=0x7ef8320b078bffff:0x40068c219c97a9
C:\Users\ZTI-Backend>

```

Step-12: Open certs folder inside cockroachdb

i. C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\certs

```
Win64 OpenSSL Command Prompt
Win64 OpenSSL Command Prompt

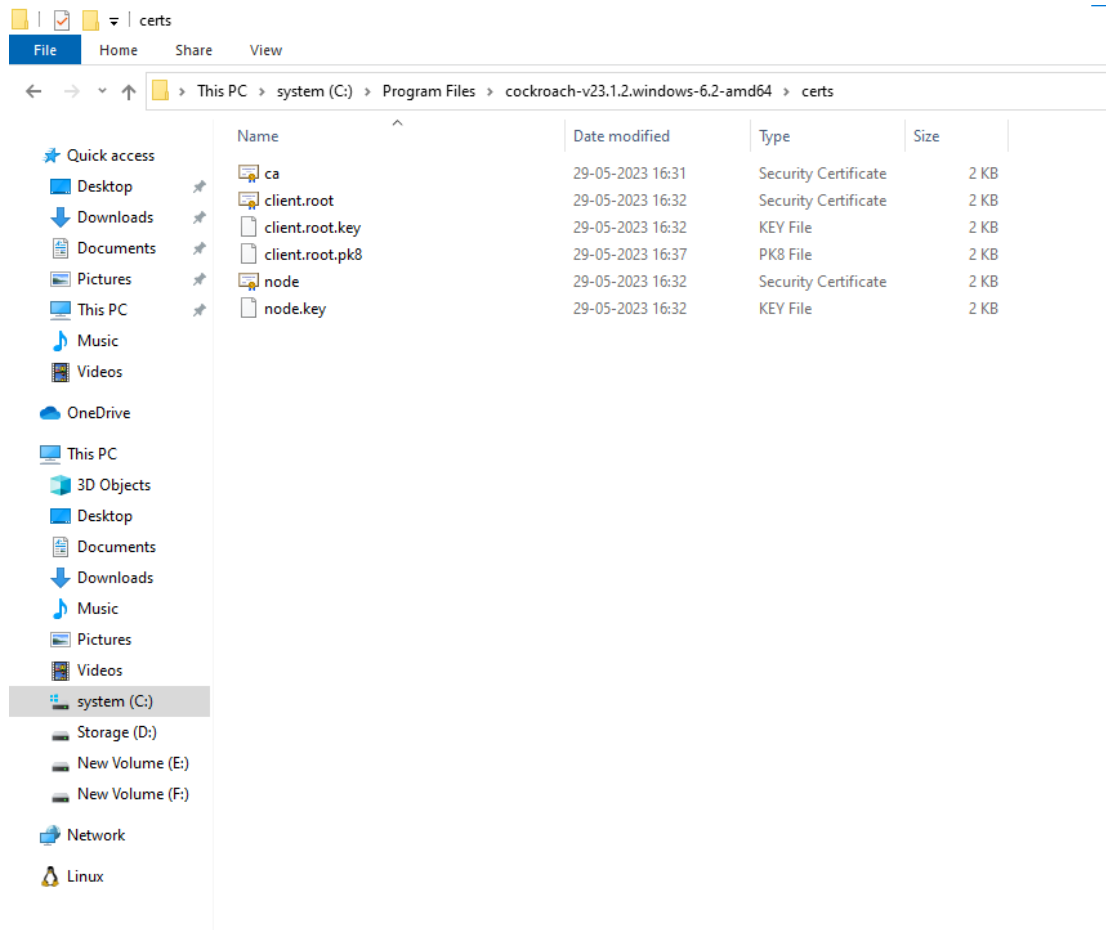
OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
built on: Tue Mar 14 15:56:12 2023 UTC
platform: VC-WIN64A
options: bn(64,64)
compiler: cl /Z7 /Fdssl_static.pdb /Gs0 /GF /Gy /MD /W3 /wd4090 /nologo /O2 -DL_ENDIAN -DOPENSSL_PIC -D_USING_V110_SDK
71 -D_WINSOCK_DEPRECATED_NO_WARNINGS -D_WIN32_WINNT=0x0502
OPENSSLDIR: "C:\Program Files\Common Files\SSL"
ENGINESDIR: "C:\Program Files\OpenSSL\lib\engines-3"
MODULESDIR: "C:\Program Files\OpenSSL\lib\ossl-modules"
Seeding source: os-specific
CPUINFO: OPENSSL_ia32cap=0x7ef8320b078bffff:0x40068c219c97a9

C:\Users\ZTI-Backend>cd ..
C:\Users>cd ..
C:\>cd "Program Files"
C:\Program Files>cd cockroach-v23.1.2.windows-6.2-amd64
C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64>cd certs
C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\certs>_
```

Step-13: Run this Command in cmd

i. openssl pkcs8 -topk8 -inform PEM -outform DER -in client.root.key -out client.root.pk8

Step-14: After run above command client.root.pk8 file generated like this



Step-15 Open cmd as administrator in below path and run commands

Path: C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64

Command: cockroach start-single-node --certs-dir=certs --listen
-addr=localhost:26257 --http-addr=localhost:8080

```
C:\Windows\System32\cmd.exe - cockroach start-single-node --certs-dir=certs --listen-addr=localhost:26257 --http-addr=localhost:8080
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64>cockroach start-single-node --certs-dir=certs --listen-addr=localhost:26257 --http-addr=localhost:8080
*
* WARNING: Running a server without --sql-addr, with a combined RPC/SQL listener, is deprecated.
* This feature will be removed in the next version of CockroachDB.
*
CockroachDB node starting at 2023-05-31 04:41:31.8094021 +0000 UTC m=+1.198910901 (took 0.9s)
build: CCL v23.1.2 @ 2023/05/25 16:27:44 (go1.19.4)
webui: https://localhost:8080
sql: postgresql://root@localhost:26257/defaultdb?sslcert=certs%5Cclient.root.crt&sslkey=certs%5Cclient.root.key&sslmode=verify-full&sslrootcert=certs%5Cca.crt
sql (JDBC): jdbc:postgresql://localhost:26257/defaultdb?sslcert=certs%5Cclient.root.crt&sslkey=certs%5Cclient.root.key&sslmode=verify-full&sslrootcert=certs%5Cca.crt&user=root
RPC client flags: cockroach <client cmd> --host=localhost:26257 --certs-dir=certs
logs: C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\cockroach-data\logs
temp dir: C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\cockroach-data\cockroach-temp3043295968
external I/O path: C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\cockroach-data\extern
store[0]: path=C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64\cockroach-data
storage engine: pebble
clusterID: db8b04cc-7b62-4a15-995b-e6e6950c6778
status: restarted pre-existing node
nodeID: 1
```

Step-16: Open new cmd as administrator in below path and run command
Path: C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64
Command: cockroach sql --certs-dir=certs --host=localhost:26257

```
C:\Windows\System32\cmd.exe - cockroach sql --certs-dir=certs --host=localhost:26257
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64>cockroach sql --certs-dir=certs --host=localhost:26257
#
# Welcome to the CockroachDB SQL shell.
# All statements must be terminated by a semicolon.
# To exit, type: \q.
#
# Server version: CockroachDB CCL v23.1.2 (x86_64-w64-mingw32, built 2023/05/25 16:27:44, go1.19.4) (same version as client)
# Cluster ID: db8b04cc-7b62-4a15-995b-e6e6950c6778
#
# Enter \? for a brief introduction.
#
root@localhost:26257/defaultdb>
M-? toggle key help * C-d erase/stop * C-c clear/cancel * M-. hide/show prompt
```

Step-17: Create user with password in above CMD
Command: CREATE USER (user name) WITH PASSWORD
(user Password);


```
C:\Windows\System32\cmd.exe - cockroach sql --certs-dir=certs --host=localhost:26257
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64>cockroach sql --certs-dir=certs --host=localhost:26257
#
# Welcome to the CockroachDB SQL shell.
# All statements must be terminated by a semicolon.
# To exit, type: \q.
#
# Server version: CockroachDB CCL v23.1.2 (x86_64-w64-mingw32, built 2023/05/25 16:27:44, go1.19.4) (same version as cli
ent)
# Cluster ID: db8b04cc-7b62-4a15-995b-e6e6950c6778
#
# Enter \? for a brief introduction.
#
root@localhost:26257/defaultdb> CREATE USER db_admin WITH PASSWORD '12345';
M-? toggle key help * C-d erase/stop * C-c clear/cancel * M-. hide/show prompt
```

Step-18: Command: show users;

```
C:\Windows\System32\cmd.exe - cockroach sql --certs-dir=certs --host=localhost:26257
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64>cockroach sql --certs-dir=certs --host=localhost:26257
#
# Welcome to the CockroachDB SQL shell.
# All statements must be terminated by a semicolon.
# To exit, type: \q.
#
# Server version: CockroachDB CCL v23.1.2 (x86_64-w64-mingw32, built 2023/05/25 16:27:44, go1.19.4) (same version as cli
ent)
# Cluster ID: db8b04cc-7b62-4a15-995b-e6e6950c6778
#
# Enter \? for a brief introduction.
#
root@localhost:26257/defaultdb> show users;
  username | options | member_of
-----+-----+-----
    admin |         | {}
   db_admin |         | {admin}
      root |         | {admin}
(3 rows)

Time: 3ms total (execution 3ms / network 0ms)

root@localhost:26257/defaultdb> 
M-? toggle key help * C-d erase/stop * C-c clear/cancel * C-r search hist * M-. hide/show prompt
```

Step-19: Provide Grant to db_admin
Command: GRANT admin to (user name);

```
C:\Windows\System32\cmd.exe - cockroach sql --certs-dir=certs --host=localhost:26257
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files\cockroach-v23.1.2.windows-6.2-amd64>cockroach sql --certs-dir=certs --host=localhost:26257
#
# Welcome to the CockroachDB SQL shell.
# All statements must be terminated by a semicolon.
# To exit, type: \q.
#
# Server version: CockroachDB CCL v23.1.2 (x86_64-w64-mingw32, built 2023/05/25 16:27:44, go1.19.4) (same version as cli
ent)
# Cluster ID: db8b04cc-7b62-4a15-995b-e6e6950c6778
# Enter \? for a brief introduction.
#
root@localhost:26257/defaultdb> show users;
  username | options | member_of
-----+-----+-----
    admin |         | {}
   db_admin |         | {admin}
      root |         | {admin}
(3 rows)

Time: 3ms total (execution 3ms / network 0ms)

root@localhost:26257/defaultdb> GRANT admin to db_admin;
M-? toggle key help * C-d erase/stop * C-c clear/cancel * C-r search hist * M-. hide/show prompt
```

Step-20 Create database

Command: create database (db name)

```
Select C:\Windows\System32\cmd.exe - cockroach sql --certs-dir=certs --host=localhost:26257
(3 rows)

Time: 3ms total (execution 3ms / network 0ms)

root@localhost:26257/defaultdb> create database stock_portfolio;
M-? toggle key help * C-d erase/stop * C-c clear/cancel * C-r search hist * M-. hide/show prompt
```

step-21:command: Show databases;

C:\Windows\System32\cmd.exe - cockroach sql --certs-dir=certs --host=localhost:26257

(3 rows)

Time: 3ms total (execution 3ms / network 0ms)

root@localhost:26257/defaultdb> show databases;

database_name	owner	primary_region	secondary_region	regions	survival_goal
defaultdb	root	NULL	NULL	{}	NULL
event_management	root	NULL	NULL	{}	NULL
stock_portfolio	root	NULL	NULL	{}	NULL
system	node	NULL	NULL	{}	NULL

(4 rows)

Time: 3ms total (execution 3ms / network 0ms)

root@localhost:26257/defaultdb>

M-? toggle key help * C-d erase/stop * C-c clear/cancel * C-r search hist * M-. hide/show prompt