## Branch

<https://github.com/cleoisme/gymProject-backend/tree/aws-db-connection-debug>

## AWS Root User

[yzhang3761@gatech.edu](mailto:yzhang3761@gatech.edu)

Study@9atech!

## Database Settings

DATABASES = {

"default": {

"ENGINE": "django.db.backends.mysql",

"NAME": "gymproject-db",

"USER": "admin",

"PASSWORD": "password",

"HOST": "gymproject-db.cd6qoiikmbxh.us-west-2.rds.amazonaws.com",

"PORT": "3306",

}

}

## Commands:

* python manage.py makemigrations
* python manage.py migrate
* python manage.py runserver

## Trace:

Traceback (most recent call last):

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 289, in ensure\_connection

self.connect()

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/utils/asyncio.py", line 26, in inner

return func(\*args, \*\*kwargs)

^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 270, in connect

self.connection = self.get\_new\_connection(conn\_params)

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/utils/asyncio.py", line 26, in inner

return func(\*args, \*\*kwargs)

^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/mysql/base.py", line 247, in get\_new\_connection

connection = Database.connect(\*\*conn\_params)

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/MySQLdb/\_\_init\_\_.py", line 121, in Connect

return Connection(\*args, \*\*kwargs)

^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/MySQLdb/connections.py", line 193, in \_\_init\_\_

super().\_\_init\_\_(\*args, \*\*kwargs2)

MySQLdb.OperationalError: (2003, "Can't connect to MySQL server on 'gymproject-db.cd6qoiikmbxh.us-west-2.rds.amazonaws.com:3306' (60)")

The above exception was the direct cause of the following exception:

Traceback (most recent call last):

File "/Users/cleozhang/Coding/strength/gymProject-backend/manage.py", line 22, in <module>

main()

File "/Users/cleozhang/Coding/strength/gymProject-backend/manage.py", line 18, in main

execute\_from\_command\_line(sys.argv)

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/\_\_init\_\_.py", line 442, in execute\_from\_command\_line

utility.execute()

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/\_\_init\_\_.py", line 436, in execute

self.fetch\_command(subcommand).run\_from\_argv(self.argv)

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/base.py", line 412, in run\_from\_argv

self.execute(\*args, \*\*cmd\_options)

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/base.py", line 458, in execute

output = self.handle(\*args, \*\*options)

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/base.py", line 106, in wrapper

res = handle\_func(\*args, \*\*kwargs)

^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/commands/migrate.py", line 100, in handle

self.check(databases=[database])

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/management/base.py", line 485, in check

all\_issues = checks.run\_checks(

^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/checks/registry.py", line 88, in run\_checks

new\_errors = check(app\_configs=app\_configs, databases=databases)

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/core/checks/database.py", line 13, in check\_database\_backends

issues.extend(conn.validation.check(\*\*kwargs))

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/mysql/validation.py", line 9, in check

issues.extend(self.\_check\_sql\_mode(\*\*kwargs))

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/mysql/validation.py", line 14, in \_check\_sql\_mode

self.connection.sql\_mode & {"STRICT\_TRANS\_TABLES", "STRICT\_ALL\_TABLES"}

^^^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/utils/functional.py", line 57, in \_\_get\_\_

res = instance.\_\_dict\_\_[self.name] = self.func(instance)

^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/mysql/base.py", line 443, in sql\_mode

sql\_mode = self.mysql\_server\_data["sql\_mode"]

^^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/utils/functional.py", line 57, in \_\_get\_\_

res = instance.\_\_dict\_\_[self.name] = self.func(instance)

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File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/mysql/base.py", line 399, in mysql\_server\_data

with self.temporary\_connection() as cursor:

File "/opt/homebrew/Cellar/python@3.11/3.11.6\_1/Frameworks/Python.framework/Versions/3.11/lib/python3.11/contextlib.py", line 137, in \_\_enter\_\_

return next(self.gen)

^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 705, in temporary\_connection

with self.cursor() as cursor:

^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/utils/asyncio.py", line 26, in inner

return func(\*args, \*\*kwargs)

^^^^^^^^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 330, in cursor

return self.\_cursor()

^^^^^^^^^^^^^^

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 306, in \_cursor

self.ensure\_connection()

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/utils/asyncio.py", line 26, in inner

return func(\*args, \*\*kwargs)

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File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 288, in ensure\_connection

with self.wrap\_database\_errors:

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/utils.py", line 91, in \_\_exit\_\_

raise dj\_exc\_value.with\_traceback(traceback) from exc\_value

File "/Users/cleozhang/.local/share/virtualenvs/gymProject-WpQ-9KWI/lib/python3.11/site-packages/django/db/backends/base/base.py", line 289, in ensure\_connection

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## Investigation

AWS Security Group Inbound Permission – All default, and I'm unsure why it does not work. My guess would be inner permission conflicts between RDS and EC2 or so. My second guess is Docker-related, but unlikely?

Source: stackoverflow, github, reddit

## Solve

MySQL Config 不对 or Django设置不对

>mysql client can help connect to aws db instance for:

- connection testing

- db configuration

Django -> in charge of 防火墙

* python manage.py mkmigration migrate runserver to see if it works

Notes:

* RDS: instance -> Infrastructure but no databases (can have multiple databases)

SQ: 大部分地址都是IPv4 除非特殊设置