

Servidor de dados

Inicialização

```
gbpereira@dataserver:~$ python3.8 data_server.py
* Serving Flask app 'data_server' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on all addresses (0.0.0.0)
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://127.0.0.1:5000
* Running on http://10.0.0.4:5000 (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 129-256-627
```

Output

```
gbpereira@dataserver:~$
20.226.20.175 - - [22/May/2022 02:40:17] "GET /autentica?id_negoc=10.0.0.7%3A5000 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /getLock?id_negoc=10.0.0.7%3A5000&conta=5 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /getSaldo?id_negoc=10.0.0.7%3A5000&conta=5 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /unLock?id_negoc=10.0.0.7%3A5000&conta=5 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /autentica HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /autentica HTTP/1.1" 200 -
20.226.17.255 - - [22/May/2022 02:40:17] "GET /autentica?id_negoc=10.0.0.5%3A5000 HTTP/1.1" 200 -
20.226.17.255 - - [22/May/2022 02:40:17] "GET /getLock?id_negoc=10.0.0.5%3A5000&conta=0 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /autentica?id_negoc=10.0.0.7%3A5000 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /getLock?id_negoc=10.0.0.7%3A5000&conta=8 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /getSaldo?id_negoc=10.0.0.7%3A5000&conta=8 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /unLock?id_negoc=10.0.0.7%3A5000&conta=8 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /autentica HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /autentica?id_negoc=10.0.0.7%3A5000 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /getLock?id_negoc=10.0.0.7%3A5000&conta=2 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /getSaldo?id_negoc=10.0.0.7%3A5000&conta=2 HTTP/1.1" 200 -
20.226.20.175 - - [22/May/2022 02:40:17] "GET /unLock?id_negoc=10.0.0.7%3A5000&conta=2 HTTP/1.1" 200 -
```

Servidores de negócio

Inicialização

```
gbpereira@business-server1: ~$ python3.8 business_server.py http://20.226.19.87:5000
* Serving Flask app 'business_server' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on all addresses (0.0.0.0)
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://127.0.0.1:5000
* Running on http://10.0.0.5:5000 (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 885-180-603

gbpereira@business-server2: ~$ python3.8 business_server.py http://20.226.19.87:5000
* Serving Flask app 'business_server' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on all addresses (0.0.0.0)
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://127.0.0.1:5000
* Running on http://10.0.0.6:5000 (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 328-246-004

gbpereira@business-server3: ~$ python3.8 business_server.py http://20.226.19.87:5000
* Serving Flask app 'business_server' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on all addresses (0.0.0.0)
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://127.0.0.1:5000
* Running on http://10.0.0.7:5000 (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 143-053-458
```

Output

```
gbpereira@business-server1: ~
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saldo/0 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saque/10/1000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saldo/9 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saldo/9 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saldo/0 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saldo/5 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:15] "GET /saldo/6 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:16] "GET /saldo/6 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:16] "GET /saque/6/500 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:16] "GET /saldo/10 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:16] "GET /deposito/3/5000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /transferencia/3/10/2000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saque/0/1000 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/6 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/10 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/3 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/0 HTTP/1.1" 404 -

gbpereira@business-server2: ~
189.100.71.154 - - [22/May/2022 02:40:11] "GET /saldo/9 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:12] "GET /saque/6/500 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:12] "GET /deposito/3/5000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:12] "GET /transferencia/3/5/2000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saque/10/1000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/6 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/5 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/3 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/10 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saque/9/500 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /deposito/3/5000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:14] "GET /transferencia/3/5/2000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:14] "GET /saque/10/1000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:14] "GET /saldo/9 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:14] "GET /saldo/5 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:14] "GET /saldo/3 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:14] "GET /saldo/10 HTTP/1.1" 200 -

gbpereira@business-server3: ~
189.100.71.154 - - [22/May/2022 02:40:12] "GET /saldo/4 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:12] "GET /saque/0/500 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:12] "GET /deposito/2/5000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:12] "GET /transferencia/2/1/2000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saque/5/1000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/0 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/1 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/2 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:13] "GET /saldo/5 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:16] "GET /saque/0/500 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /deposito/8/5000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /transferencia/8/5/2000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saque/2/1000 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/0 HTTP/1.1" 404 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/5 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/8 HTTP/1.1" 200 -
189.100.71.154 - - [22/May/2022 02:40:17] "GET /saldo/2 HTTP/1.1" 200 -
```

Testes

O output do script de execução (executado em duas sessões do terminal).

Detalhes: as respostas de sucesso tem status 200, o script também usa tokens/contas inválidas, nesse caso o status é 401...404.

```
~/Workspace/mackenzie/repositories/compdist-banco-distribuido-webservices master [*] 2.7.1
> python3.8 executa-cliente.py
client -> server_address: http://20.226.17.255:5000 authentication_server: http://20.226.19.87:5000/autentica token: 8ace
saque(2, 500) -> body: {}, status: 200
deposito(4, 5000) -> body: {}, status: 200
transferencia(4, 10, 2000) -> body: {}, status: 200
saque(5, 1000) -> body: {}, status: 200
saldo(2) -> body: {'saldo': 500}, status: 200
saldo(10) -> body: {'saldo': 5000}, status: 200
saldo(4) -> body: {'saldo': 4000}, status: 200
saldo(5) -> body: {'saldo': -500}, status: 200

client -> server_address: http://20.226.17.255:5000 authentication_server: http://20.226.19.87:5000/autentica token: __INVALID__
saque(0, 500) -> body: {}, status: 401
deposito(1, 5000) -> body: {}, status: 401
transferencia(1, 7, 2000) -> body: {}, status: 401
saque(9, 1000) -> body: {}, status: 401
saldo(0) -> body: {}, status: 401
saldo(7) -> body: {}, status: 401
saldo(1) -> body: {}, status: 401
saldo(9) -> body: {}, status: 401

client -> server_address: http://20.226.17.255:5000 authentication_server: http://20.226.19.87:5000/autentica token: a5fc
saque(1, 500) -> body: {}, status: 200
deposito(0, 5000) -> body: {}, status: 404
transferencia(0, 3, 2000) -> body: {}, status: 404
saque(8, 1000) -> body: {}, status: 200
saldo(1) -> body: {'saldo': 10500}, status: 200
saldo(3) -> body: {'saldo': 0}, status: 200
saldo(0) -> body: {}, status: 404
saldo(8) -> body: {'saldo': 2000}, status: 200

client -> server_address: http://20.226.19.161:5000 authentication_server: http://20.226.19.87:5000/autentica token: __INVALID__
saque(4, 500) -> body: {}, status: 401
deposito(3, 5000) -> body: {}, status: 401
transferencia(3, 1, 2000) -> body: {}, status: 401
saque(8, 1000) -> body: {}, status: 401
saldo(0) -> body: {}, status: 401

gbpereira@vm:~/Workspace/mackenzie/repositories/compdist-banco-distribuido-webservices
saldo(0) -> body: {}, status: 404
saldo(1) -> body: {'saldo': 9500}, status: 200
saldo(2) -> body: {'saldo': 3500}, status: 200
saldo(5) -> body: {'saldo': 0}, status: 200

client -> server_address: http://20.226.17.255:5000 authentication_server: http://20.226.19.87:5000/autentica token: ba0f
saque(10, 500) -> body: {}, status: 200
deposito(0, 5000) -> body: {}, status: 404
transferencia(0, 0, 2000) -> body: {}, status: 404
saque(9, 1000) -> body: {}, status: 200
saldo(10) -> body: {'saldo': 7500}, status: 200
saldo(0) -> body: {}, status: 404
saldo(0) -> body: {}, status: 404
saldo(9) -> body: {'saldo': 5500}, status: 200

client -> server_address: http://20.226.17.255:5000 authentication_server: http://20.226.19.87:5000/autentica token: b317
saque(0, 500) -> body: {}, status: 404
deposito(0, 5000) -> body: {}, status: 404
transferencia(0, 9, 2000) -> body: {}, status: 404
saque(6, 1000) -> body: {}, status: 200
saldo(0) -> body: {}, status: 404
saldo(9) -> body: {'saldo': 5000}, status: 200
saldo(0) -> body: {}, status: 404
saldo(6) -> body: {'saldo': 4000}, status: 200

client -> server_address: http://20.226.17.255:5000 authentication_server: http://20.226.19.87:5000/autentica token: 1aac
saque(6, 500) -> body: {}, status: 200
deposito(3, 5000) -> body: {}, status: 200
transferencia(3, 10, 2000) -> body: {}, status: 200
saque(0, 1000) -> body: {}, status: 404
saldo(6) -> body: {'saldo': 3500}, status: 200
saldo(10) -> body: {'saldo': 8500}, status: 200
saldo(3) -> body: {'saldo': 9000}, status: 200
saldo(0) -> body: {}, status: 404
```

```
~/Workspace/mackenzie/repositories/compdist-banco-distribuido-webservices master [*] 2.7.1
```