```
Last login: Fri May  1 16:55:42 on ttys000
Serhiis-MacBook-Pro:~ serhii$ psql -d dvdrental -U postgres
Password for user postgres:
psql (12.2)
Type "help" for help.

dvdrental=# SHOW TIMEZONE;
  TimeZone
------------
 Europe/Kiev
(1 row)

dvdrental=#
dvdrental=#
dvdrental=# SELECT NOW();
              now
-------------------------------
 2020-05-01 17:09:16.525622+03
(1 row)

dvdrental=#
dvdrental=# SELECT TIMEOFDAY();
               timeofday
--------------------------------------
 Fri May 01 17:09:57.958444 2020 EEST
(1 row)

dvdrental=#
dvdrental=# SELECT CURRENT_TIME;
    current_time
-------------------
 17:10:34.41046+03
(1 row)

dvdrental=#
dvdrental=# SELECT CURRENT_DATE;
 current_date
--------------
 2020-05-01
(1 row)

dvdrental=#
dvdrental=# SELECT EXTRACT(YEAR FROM payment_date) FROM payment;
 date_part
-----------
      2007
      2007
      2007
      2007
      2007
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dvdrental=#
dvdrental=#
dvdrental=#
dvdrental=# SELECT EXTRACT(QUARTER FROM payment_date) FROM payment;
 date_part
-----------
         1
         1
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dvdrental=#
```

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                                                          1
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                                                          1
                                                          1
                                                          1
dvdrental=#
dvdrental=#
dvdrental=#
dvdrental=# SELECT payment_date FROM payment LIMIT 5;
        payment_date
----------------------------
 2007-02-15 22:25:46.996577
 2007-02-16 17:23:14.996577
 2007-02-16 22:41:45.996577
 2007-02-19 19:39:56.996577
 2007-02-20 17:31:48.996577
(5 rows)

dvdrental=#
dvdrental=#
dvdrental=# SELECT AGE(payment_date) FROM payment LIMIT 5;
                   age
-----------------------------------------
 13 years 2 mons 13 days 01:34:13.003423
 13 years 2 mons 12 days 06:36:45.003423
 13 years 2 mons 12 days 01:18:14.003423
 13 years 2 mons 9 days 04:20:03.003423
 13 years 2 mons 8 days 06:28:11.003423
(5 rows)

dvdrental=#
dvdrental=# SELECT TO_CHAR(payment_date, 'MONTH') FROM payment LIMIT 5;
   to_char
-----------
 FEBRUARY
 FEBRUARY
 FEBRUARY
 FEBRUARY
 FEBRUARY
(5 rows)

dvdrental=#
dvdrental=#
dvdrental=# SELECT TO_CHAR(payment_date, 'MONTH-YYYY') FROM payment LIMIT 5;
     to_char
----------------
 FEBRUARY -2007
 FEBRUARY -2007
 FEBRUARY -2007
 FEBRUARY -2007
 FEBRUARY -2007
(5 rows)

dvdrental=# SELECT TO_CHAR(payment_date, 'MONTH YYYY') FROM payment LIMIT 5;
     to_char
------------------
 FEBRUARY  2007
 FEBRUARY  2007
 FEBRUARY  2007
 FEBRUARY  2007
 FEBRUARY  2007
(5 rows)

dvdrental=# SELECT TO_CHAR(payment_date, 'mon/dd/YYYY') FROM payment LIMIT 5;
   to_char
-------------
 feb/15/2007
 feb/16/2007
 feb/16/2007
 feb/19/2007
 feb/20/2007
(5 rows)

dvdrental=#
dvdrental=# SELECT TO_CHAR(payment_date, 'MM/dd/YYYY') FROM payment LIMIT 5;
   to_char
------------
 02/15/2007
 02/16/2007
 02/16/2007
 02/19/2007
 02/20/2007
(5 rows)

dvdrental=#
dvdrental=# SELECT TO_CHAR(payment_date, 'MM-dd-YYYY') FROM payment LIMIT 5;
   to_char
------------
 02-15-2007
 02-16-2007
 02-16-2007
 02-19-2007
 02-20-2007
(5 rows)

dvdrental=#
dvdrental=# SELECT TO_CHAR(payment_date, 'dd-MM-YYYY') FROM payment LIMIT 5;
   to_char
-------------
 15-02-2007
 16-02-2007
 16-02-2007
 19-02-2007
 20-02-2007
(5 rows)

dvdrental=# SELECT TO_CHAR(payment_date, 'dd/MM/YYYY') FROM payment LIMIT 5;
   to_char
-------------
 15/02/2007
 16/02/2007
 16/02/2007
 19/02/2007
 20/02/2007
(5 rows)

dvdrental=#
dvdrental=# SELECT COUNT(*) FROM payment WHERE EXTRACT (dow FROM payment_date) = 1
dvdrental-# ;
 count
-------
  2948
(1 row)

dvdrental=# SELECT COUNT(*) FROM payment WHERE EXTRACT (dow FROM payment_date) = 1;
 count
-------
  2948
(1 row)

dvdrental=#
dvdrental=# SELECT rental_rate/replacement_cost FROM film;
        ?column?
------------------------
 0.3328885923949299530
 0.2496248124062031015
 0.3120700437736085053
 0.3841416474210931485
 0.0471653168175321581
 0.3841416474210931485
 0.1574512901527119536
 0.1107817710263060392
 0.1300565654632448890822
 0.1662034463590883824
 0.1721283201103828906
 0.1359708958617553433
 0.1996798719487795118
 0.0582695703354914655
 0.0430622009569377990
 0.0495247623811905530
 0.2269213278763074124
 0.0412671946644435181
 0.2720655141037306642
 0.1246352646936223426
 0.0660440293529019346
 0.0353697749196141479
 0.0471653168175321581
 0.2080083347228011671
 0.2773763201778765981
```

```
 0.27206551410373066424
 0.0909909090909090910
 0.1495747873936984842
 0.1869918699186991869 9
 0.0619136960660003752345
 0.07621247113163972286
 0.29370217775161859918
 0.2493744787322768974 1
 0.1068238656666303939621
 0.29370217775161859918
 0.41618015012510425354
 0.18691869918699186999
 0.0330110036678892996 43
 0.11964789514365746299
 0.07621247113163972286
 0.10313901345291479821
 0.03809157368218545594
 0.09008189262963330 30
 0.04306220095693779984
 0.05503057254030016676
 0.27206551410373066424
 0.17212832011038289065
 0.18691869918699186999
 0.22692132787630741246
 0.33288859239492995330
 0.35668334524660471766
 0.20800333472280116715
 0.19967987194877951180
 0.1300565463244890822 2
 0.14244878513577894235
 0.29370217775161859918
 0.27206551410373066424
 0.03301100366788929643
 0.11504424778761861947
 0.0619136960660003752345
 0.10682386566630939621
 0.18691869918699186999
 0.15745129015271195366
 0.1759858740435550323 7
 0.14244878513577894235
 0.21705089169204001740
 0.17212832011038289065
 0.12463526469362234264
 0.04502046384720327422
 0.03668025194516487588
 0.23773225345402572654
dvdrental=#
dvdrental=# SELECT rental_rate/replacement_cost FROM film LIMIT 5;
       ?column?
-----------------------
 0.33288859239492995330
 0.24962481240620310155
 0.31207004377736085053
 0.38414164742109314858
 0.04716531681753215817
(5 rows)

dvdrental=#
dvdrental=#
dvdrental=# SELECT ROUND(rental_rate/replacement_cost, 2) FROM film LIMIT 5;
 round
-------
  0.33
  0.25
  0.31
  0.38
  0.05
(5 rows)

dvdrental=#
dvdrental=# SELECT ROUND(rental_rate/replacement_cost, 2)*100 FROM film LIMIT 5;
 ?column?
----------
    33.00
    25.00
    31.00
    38.00
     5.00
(5 rows)

dvdrental=# SELECT ROUND(rental_rate/replacement_cost, 4) * 100 FROM film LIMIT 5;
 ?column?
----------
  33.2900
  24.9600
  31.2100
  38.4100
   4.7200
(5 rows)

dvdrental=#
dvdrental=# SELECT LENGTH(first_name) FROM customer LIMIT 5;
 length
--------
      5
      4
      8
      5
      7
(5 rows)

dvdrental=#
dvdrental=#
dvdrental=# SELECT first_name || ' ' || last_name FROM customer LIMIT 5;
     ?column?
-------------------
 Jared Ely
 Mary Smith
 Patricia Johnson
 Linda Williams
 Barbara Jones
(5 rows)

dvdrental=# SELECT upper(first_name) || ' ' || upper(last_name) FROM customer LIMIT 5;
     ?column?
-------------------
 JARED ELY
 MARY SMITH
 PATRICIA JOHNSON
 LINDA WILLIAMS
 BARBARA JONES
(5 rows)

dvdrental=#
dvdrental=# SELECT LOWER(LEFT(first_name, 1)) || LOWER(last_name) || '@gmail.com' FROM customer LIMIT 5;
       ?column?
--------------------
 jely@gmail.com
 msmith@gmail.com
 pjohnson@gmail.com
 lwilliams@gmail.com
 bjones@gmail.com
(5 rows)

dvdrental=#
dvdrental=#
dvdrental=# SELECT student, grade FROM test_score LIMIT 5;
ERROR:  relation "test_score" does not exist
LINE 1: SELECT student, grade FROM test_score LIMIT 5;
                                   ^
dvdrental=#
dvdrental=#
dvdrental=# SELECT AVG(rental_rate) FROM film;
        avg
--------------------
 2.980000000000000
(1 row)

dvdrental=#
dvdrental=#
dvdrental=# SELECT title, rental_rate FROM film WHERE rental_rate >  SELECT AVG(rental_rate) FROM film;
ERROR:  syntax error at or near "SELECT"
LINE 1: ...title, rental_rate FROM film WHERE rental_rate >  SELECT AVG...
                                                             ^
dvdrental=#
dvdrental=#
dvdrental=# SELECT title, rental_rate FROM film WHERE rental_rate > (SELECT AVG(rental_rate) FROM film);
           title            | rental_rate
----------------------------+-------------
 Chamber Italian            |        4.99
 Grosse Wonderful           |        4.99
 Airport Pollock            |        4.99
 Bright Encounters          |        4.99
 Ace Goldfinger             |        4.99
 Adaptation Holes           |        2.99
 Affair Prejudice           |        2.99
 African Egg                |        2.99
 Agent Truman               |        2.99
 Airplane Sierra            |        4.99
 Alabama Devil              |        2.99
 Aladdin Calendar           |        4.99
 Ali Forever                |        4.99
 Alien Center               |        2.99
 Alley Evolution            |        2.99
```

```
        Amelie Hellfighters          |        4.99
        American Circus              |        4.99
        Amistad Midsummer            |        2.99
        Analyze Hoosiers             |        2.99
        Angels Life                  |        2.99
        Anthem Luke                  |        4.99
        Antitrust Tomatoes           |        2.99
        Anything Savannah            |        2.99
        Apache Divine                |        4.99
        Apocalypse Flamingos         |        4.99
        Apollo Teen                  |        2.99
        Arachnophobia Rollercoaster  |        2.99
        Arizona Bang                 |        2.99
        Artist Coldblooded           |        2.99
        Dying Maker                  |        4.99
        Atlantis Cause               |        2.99
        Attacks Hate                 |        4.99
        Attraction Newton            |        4.99
        Autumn Crow                  |        4.99
        Baby Hall                    |        4.99
        Backlash Undefeated          |        4.99
        Badman Dawn                  |        2.99
        Baked Cleopatra              |        2.99
        Casualties Encino            |        4.99
        Balloon Homeward             |        2.99
        Bang Kwai                    |        2.99
        Barbarella Streetcar         |        2.99
        Barefoot Manchurian          |        2.99
        Basic Easy                   |        2.99
        Beach Heartbreakers          |        2.99
        Bear Graceland               |        2.99
        Beast Hunchback              |        4.99
        Beauty Grease                |        4.99
        Bed Highball                 |        2.99
        Behavior Runaway             |        4.99
        Berets Agent                 |        2.99
        Betrayed Rear                |        4.99
        Beverly Outlaw               |        2.99
        Bikini Borrowers             |        4.99
        Bilko Anonymous              |        4.99
        Bill Others                  |        2.99
        Bingo Talented               |        2.99
        Birch Antitrust              |        4.99
        Bird Independence            |        4.99
        Birds Perdition              |        4.99
        Blackout Private             |        2.99
        Blanket Beverly              |        2.99
        Blindness Gun                |        4.99
        Blues Instinct               |        2.99
        Boiled Dares                 |        4.99
        Boogie Amelie                |        4.99
        Born Spinal                  |        4.99
        Bowfinger Gables             |        4.99
        Brannigan Sunrise            |        4.99
        Braveheart Human             |        2.99
        Breakfast Goldfinger         |        4.99
dvdrental=#
dvdrental=#
dvdrental=# SELECT inventory.film_id FROM rental INNER JOIN inventory ON inventory.inventory_id = rental.inventory_id WHERE return_date BETWEEN '2005-05-29' AND '2005-05-30';
 film_id
---------
      15
      19
      45
      50
      52
      54
      68
      73
      83
      89
     103
     120
     130
     138
     139
     164
     179
     200
     226
     227
     228
     233
     234
     241
     247
     248
     255
     257
     267
     288
     293
     295
     299
     300
     307
     347
     348
     349
     388
     393
     397
     418
     471
     471
     480
     484
     487
     505
     506
     517
     527
     563
     573
     621
     624
     630
     651
     681
     684
     694
     715
     757
     772
     776
     783
     838
     858
     865
     868
     870
     875
dvdrental=#
dvdrental=#
dvdrental=#
dvdrental=# SELECT film_id, title FROM film WHERE film_id IN  (SELECT inventory.film_id FROM rental INNER JOIN inventory ON inventory.inventory_id = rental.inventory_id WHERE return_date BETWEEN '2005-05-29' AND '2005-05-30');
 film_id |          title
---------+-------------------------
     307 | Fellowship Autumn
     255 | Driving Polish
     388 | Gunfight Moon
     130 | Celebrity Horn
     563 | Massacre Usual
     397 | Hanky October
     898 | Tourist Pelican
     228 | Detective Vision
     347 | Games Bowfinger
    1000 | Zorro Ark
     624 | Nightmare Chill
     179 | Conquerer Nuts
      54 | Banger Pinocchio
     684 | Pizza Jumanji
     267 | Eagles Panky
      68 | Betrayed Rear
     868 | Superfly Trip
     138 | Chariots Conspiracy
     418 | Hobbit Alien
     681 | Pirates Roxanne
      52 | Ballroom Mockingbird
      83 | Blues Instinct
     858 | Submarine Bed
      45 | Attraction Newton
     958 | Wardrobe Phantom
     783 | Shane Darkness
     295 | Expendable Stallion
     694 | Prejudice Oleander
     484 | Jerk Paycheck
     963 | Watch Tracy
     233 | Disciple Mother
     299 | Factory Dragon
     471 | Island Exorcist
      89 | Borrowers Bedazzled
     241 | Donnie Alley
     393 | Halloween Nuts
```

```
    776 | Secret Groundhog
    971 | Whale Bikini
    348 | Gandhi Kwai
    967 | Weekend Personal
    870 | Swarm Gold
     50 | Baked Cleopatra
    941 | Videotape Arsenic
    300 | Falcon Volume
    953 | Wait Cider
    487 | Jingle Sagebrush
    227 | Details Packer
    838 | Stagecoach Armageddon
    200 | Curtain Videotape
     73 | Bingo Talented
    630 | Notting Speakeasy
    505 | Labyrinth League
    103 | Bucket Brotherhood
    715 | Range Moonwalker
    902 | Trading Pinocchio
    875 | Talented Homicide
    772 | Sea Virgin
    527 | Lola Agent
    257 | Drumline Cyclone
    480 | Jeepers Wedding
    247 | Downhill Enough
    651 | Packer Madigan
    120 | Caribbean Liberty
    973 | Wife Turn
    757 | Sagebrush Clueless
     15 | Alien Center
    139 | Chasing Fight
    226 | Destiny Saturday
    349 | Gangs Pride
    164 | Coast Rainbow
    914 | Trouble Date
dvdrental=#
dvdrental=#
dvdrental=#
dvdrental=# SELECT film_id, title FROM film WHERE film_id IN  (SELECT inventory.film_id FROM rental INNER JOIN inventory ON inventory.inventory_id = rental.inventory_id WHERE return_date BETWEEN '2005-05-29' AND '2005-05-30') ORDER BY fil
m_id;
 film_id |         title
---------+------------------------
      15 | Alien Center
      19 | Amadeus Holy
      45 | Attraction Newton
      50 | Baked Cleopatra
      52 | Ballroom Mockingbird
      54 | Banger Pinocchio
      68 | Betrayed Rear
      73 | Bingo Talented
      83 | Blues Instinct
      89 | Borrowers Bedazzled
     103 | Bucket Brotherhood
     120 | Caribbean Liberty
     130 | Celebrity Horn
     138 | Chariots Conspiracy
     139 | Chasing Fight
     164 | Coast Rainbow
     179 | Conquerer Nuts
     200 | Curtain Videotape
     226 | Destiny Saturday
     227 | Details Packer
     228 | Detective Vision
     233 | Disciple Mother
     234 | Disturbing Scarface
     241 | Donnie Alley
     247 | Downhill Enough
     248 | Dozen Lion
     255 | Driving Polish
     257 | Drumline Cyclone
     267 | Eagles Panky
     288 | Escape Metropolis
     293 | Exorcist Sting
     295 | Expendable Stallion
     299 | Factory Dragon
     300 | Falcon Volume
     307 | Fellowship Autumn
     347 | Games Bowfinger
     348 | Gandhi Kwai
     349 | Gangs Pride
     388 | Gunfight Moon
     393 | Halloween Nuts
     397 | Hanky October
     418 | Hobbit Alien
     471 | Island Exorcist
     480 | Jeepers Wedding
     484 | Jerk Paycheck
     487 | Jingle Sagebrush
     505 | Labyrinth League
     506 | Lady Stage
     517 | Lesson Cleopatra
     527 | Lola Agent
     563 | Massacre Usual
     573 | Microcosmos Paradise
     621 | Network Peak
     624 | Nightmare Chill
     630 | Notting Speakeasy
     651 | Packer Madigan
     681 | Pirates Roxanne
     684 | Pizza Jumanji
     694 | Prejudice Oleander
     715 | Range Moonwalker
     757 | Sagebrush Clueless
     772 | Sea Virgin
     776 | Secret Groundhog
     783 | Shane Darkness
     838 | Stagecoach Armageddon
     858 | Submarine Bed
     865 | Sunrise League
     868 | Superfly Trip
     870 | Swarm Gold
     875 | Talented Homicide
     898 | Tourist Pelican
     902 | Trading Pinocchio
     914 | Trouble Date
     941 | Videotape Arsenic
dvdrental=#
dvdrental=#
dvdrental=#
dvdrental=# exit
Serhiis-MacBook-Pro:~ serhii$
```