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שאילתות באלגברה רלציונית/יחסית

1. SELECT * FROM book WHERE stock > 0

$$\sigma_{stock > 0}(book)$$

2. SELECT * FROM orders WHERE order_status != 'Payed'

$$\sigma_{order\_status <> "Payed"}(orders)$$

3. SELECT * FROM costumer

$$\sigma_{true}(costumer)$$

4. SELECT * FROM supplier

$$\sigma_{true}(supplier)$$

5. SELECT * FROM transaction WHERE transaction_date BETWEEN StartDate AND EndDate

$$\sigma_{transaction\_date\ BETWEEN\ StartDate\ AND\ EndDate}(transaction)$$

6. SELECT * FROM book WHERE global_discount_precents > 0

$$\sigma_{global\_discount\_precents > 0}(book)$$

7. SELECT * FROM book WHERE book_name = Bookname

$$\sigma_{book\_name = Bookname}(book)$$

8. SELECT * FROM supplier_supplies WHERE book_name = ?

$$\sigma_{book\_name = Bookname}(supplier\_supplies)$$

9. SELECT * FROM contain INNER JOIN transaction ON contain.order_id = transaction.order_id WHERE contain.book_name = Bookname AND contain.order_date >= Date

$$\sigma_{contain.book\_name = Bookname\ AND\ contain.order\_date >= Date}(contain \bowtie_{contain.order\_id = transaction.order\_id} transaction)$$

10. SELECT * FROM transaction WHERE costumer_id = CosID AND transaction_date >= Date

$$\sigma_{costumer\_id = CosID\ AND\ transaction\_date >= Date}(transaction)$$

11. SELECT costumer_id FROM transaction WHERE transaction_date >= Date

$$\pi_{costumer\_id}(\sigma_{transaction\_date >= Date}(transaction))$$

SELECT * FROM transaction WHERE transaction_date >= Date

$$\sigma_{transaction\_date >= Date}(transaction)$$

SELECT * FROM costumer WHERE costumer_id = Index

$$\sigma_{costumer\_id = Index}(costumer)$$

12. SELECT supplier_id FROM supply WHERE supply_date >= ?

$$\pi_{supplier\_id}\left(\sigma_{supply\_date \;>=\; Date}(supply)\right)$$

SELECT * FROM supply WHERE supply_date >= ?

$$\sigma_{supply\_date \;>=\; Date}(supply)$$

SELECT * FROM supplier WHERE supplier_id = ?

$$\sigma_{supplier\_id \;=\; Index}(supplier)$$

13. SELECT * FROM orders WHERE order_date BETWEEN ? AND ?

$$\sigma_{order\_date \; BETWE \quad StartDate \; AND \; EndDate}(orders)$$

14. SELECT * FROM orders WHERE order_date BETWEEN ? AND ? AND order_status = 'Payed'

$$\sigma_{order\_date \; BETWEEN \; StartDate \; AND \; EndDate \; AND \; order\_status \;=\;"Payed"}(orders)$$

15. SELECT SUM(discount_ils) as counter FROM transaction WHERE transaction_date >= ? AND costumer_id = ?

$$\rho_{(counter)}\left(\pi_{SUM}(discount\_ils)\left(\sigma_{transaction\_date \;>=\; StartDate \; AND \; costumer\_id \;=\; Id}(transaction)\right)\right)$$

16. SELECT SUM(cost) as totalIn FROM transaction WHERE transaction_date BETWEEN ? AND ?

$$\rho_{(totalIn)}\left(\pi_{SUM}(cost)\left(\sigma_{transaction\_date \; BETWEEN \; StartDate \; AND \; EndDate}(transaction)\right)\right)$$

SELECT SUM(supply_cost) as totalOut FROM supply WHERE supply_date BETWEEN ? AND ?

$$\rho_{(totalOut)}\left(\pi_{SUM}(supply\_cost)\left(\sigma_{supply\_date \; BETWEEN \; StartDate \; AND \; EndDate}(supply)\right)\right)$$

17. SELECT * FROM costumer WHERE join_date >= ?

$$\sigma_{join\_date \;>=\; Date}(costumer)$$

18. SELECT SUM(supply_cost) as counter FROM supply WHERE supplier_id = ? AND supply_date BETWEEN ? AND ?

$$\rho_{(counter)}\left(\pi_{SUM}(supply\_cost)\left(\sigma_{supplier\_id \;=\; Id \; AND \; supply\_date \; BETWEEN \; StartDate \; AND \; EndDa}(supply)\right)\right)$$

19. SELECT SUM(cost) AS counter FROM transaction WHERE emp_id = ? AND transaction_date BETWEEN ? AND ?

$$\rho_{(counter)}\left(\pi_{SUM}(cost)\left(\sigma_{emp\_id \;=\; Id \; AND \; transaction\_date \; BETWEEN \; StartDate \; AND \; EndDate}(transaction)\right)\right)$$

20. SELECT book_name FROM contain INNER JOIN transaction ON contain.order_id = transaction.order_id WHERE transaction.transaction_date BETWEEN ? AND ?

$$\pi_{book\_name}\left(\sigma_{transaction.transaction\_date \; BETWEEN \; StartDate \; AND \; EndDate}(contain \bowtie_{contain.order\_id \;=\; transaction.order\_id} transaction)\right)$$

SELECT book_name, order_id FROM contain INNER JOIN transaction ON contain.order_id = transaction.order_id WHERE transaction.transaction_date BETWEEN ? AND ?

$$\pi_{book\_name, order\_id}\left(\sigma_{transaction.transaction\_date \; BETWEEN \; StartDate \; AND \; EndDate}(contain \bowtie_{contain.order\_id=transaction.order\_id} transaction)\right)$$