

数据库第一次作业

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第三题开始使用 vsc 自带的终端使用 ssh 连接到虚拟机，因此截图有所变化

1. 找出满足以下要求的销售区域，显示销售区域的号码（ID）和名字：销售区域的销售税小于0.1，且对应供货仓库的销售税大于0.18。

```

benchmarksql=> WITH warehouse AS (
benchmarksql(>     SELECT w_id
benchmarksql(>     FROM bmsql_warehouse
benchmarksql(>     WHERE w_tax > 0.18
benchmarksql(> )
benchmarksql-> SELECT d_id, d_name
benchmarksql-> FROM bmsql_district, warehouse
benchmarksql-> WHERE bmsql_district.d_w_id = warehouse.w_id
benchmarksql->     AND d_tax < 0.1;
  d_id |   d_name
-----+-----
    1 | f6ybIs4
    5 | D7ty1Dx6a
    4 | RKvjzTvP
    6 | KA985Y
    8 | gstocHfc
   10 | aJ27nURx
    1 | K9Jk0EG
    2 | jcB6xb
    3 | rplFgRMfk
    8 | mVST3TZfMP
    2 | TEb8XYbak8
    3 | RmEKQ7
    4 | Bwu6cmq
    5 | jNsGyB
    6 | W8LT4bi
    7 | gkV19WWvNS
    8 | goV6o1
    9 | sCI m6PG57
    1 | zpcnT0
    3 | u6HpQi
    4 | UqEYQwIq
    8 | E0lEQZy
    9 | zikvy4xEK
    1 | qj7EC080Lw
    2 | aL7kRkzA
    3 | VB466diz
    9 | ZAMXmv7v
    3 | qhlPB2R5R
    4 | XHSvHKLn3
    5 | xNV4STHjG
    6 | PYEsUaa6
    7 | ICIE3oHJC
    8 | azcnL6N
    9 | Rab7JSb
(34 rows)

```

- 找出满足下面要求的仓库名字（不输出重复的名字）：有来自广东省（state为GD）且信用良好的顾客购买过该仓库的商品。

```

benchmarksql=> WITH customer AS(
benchmarksql(>      SELECT c_w_id
benchmarksql(>      FROM bmsql_customer
benchmarksql(>      WHERE c_state = 'GD'
benchmarksql(>      AND c_credit = 'GC'
benchmarksql(> )
benchmarksql-> SELECT distinct w_name
benchmarksql-> FROM bmsql_warehouse, customer
benchmarksql-> WHERE w_id = customer.c_w_id;
  w_name
-----
XcoveRpN
XwcR6kz
uEtycOjMHD
Y2Qa6Lhnc
UnQMHV
kJcpU09J3
LjkFTlKG
jYaJZFv3
BxUVUXR
L5vGjVYKOK
yn03sginC
q3CPrCoZ
ERs4w3
cl54KK9AL
kUMmiF5iO
s8e96cDard
LX82bDs
AjC38ie
QfRqpZzR25
nUMJoJ0tAS
CkHLYgir4
DC66TF0hh
tZI1Hzwb
Gpk6kI
E0fmDATq
Sh8vR9lUT0
fTDg0WpPQs
Je9C140Xtx
ZUXDGg
Wa7HLjzX
ak0vUwFZcE
BVImmI
EsMWX4M
sG9udYG
vf6ezbz
nxRFtPMV9
ii0MDKxAg0
FrfEN5so53
aAJl1bTg
KL04z0f9
(40 rows)

benchmarksql=>

```

3. 找出享有九折优惠但信用不良的顾客，显示他们的姓名（包括中间名）。

```

benchmarksql=> SELECT c_first, c_middle, c_last FROM bmsql_customer WHERE c_credit = 'BC' AND c_discount = 0.1;
  c_first      | c_middle | c_last
-----+-----+-----
w9I1cYxtDW0bicav | OE      | ANTICALLYCALLY
Ffkuixjix      | OE      | ABLEESEPRI
o3YZ19knvQ6n   | OE      | EINGCALLYEING
B2EcJyvM0hYjakXL | OE      | EINGEINGABLE
o0VH3cUXDPza   | OE      | PRESESEEING
F4hLtDXhh      | OE      | EINGATIONCALLY
x1luNhTtbRAwpXE3 | OE      | PRESBARABLE
lKgnRD1pG      | OE      | BARBARESE
BT2PDzrBws     | OE      | PRIATIONPRES
gsaE204wUkT    | OE      | ESECALLYANTI
Tk1ZXudzvzNXveX | OE      | PRESATIONESE
aMuvU480y9uEG0 | OE      | ESEBAREING
KnNXxracA      | OE      | BARATIONATION
pgPvCf0goDD4BIPS | OE      | PRIESEESE
kw9ww1DMrglwuiZG | OE      | PRESATIONESE
KxUU6ti2a      | OE      | PRIESECALLY
Twf8fzTm6UupKQ | OE      | ABLEESEPRI
hd43QGzVgboobhR | OE      | EINGPRIPRI
eBht0JAC       | OE      | BARBARABLE
twJZraKHplD78Gi4 | OE      | CALLYOUGHTCALLY
QchAgIXup       | OE      | ABLEESEPRI
vhp0V7n7wonbx6Hv | OE      | BAREINGOUGH
P6NFf477       | OE      | EINGEINGCALLY
ouluOo1QQf2    | OE      | PRESOUGHTANTI
oGLI6VOYPvJf0a | OE      | ABLEPRIOUGH
y5n9IiMA       | OE      | PRIABLEPRI
oSrGzTi5LWgNupaU | OE      | ABLEPRESESE
QXFJ9LN0w      | OE      | ESEEINGATION
(28 rows)

```

4. 如果一种货物剩余的数量少于12，我们就认为该货物短缺。找出所有短缺的货物的名字，其所在仓库的名字，以及货物剩余的数量。

```

benchmarksql(> )
benchmarksql-> SELECT i_name, w_name, s_quantity
benchmarksql-> FROM bmsql_item, bmsql_warehouse, stock
benchmarksql-> WHERE w_id = s_w_id AND i_id = s_i_id
benchmarksql-> ORDER BY i_id;
ERROR: column "s_quantity" does not exist
LINE 6: SELECT i_name, w_name, s_quantity
                                ^

```

```

benchmarksql=> WITH stock AS(
benchmarksql(> SELECT s_w_id, s_i_id, s_quantity
                  i_name      | w_name      | s_quantity
-----+-----+-----
dGt8rEsWdEj2H2wRRYc1oU    | sG9udYG     |          11
AVasgnJpvGmsAgJ            | kJcpU09J3   |          10
AVasgnJpvGmsAgJ            | QfRqpZzR25  |          11
v0YrU3GQC0x4bkicbBjKuzSu  | vf6ezbz     |          11
OTBk92vzUnchdZsCCcE       | EsMwX4M     |          11
: ...skipping...

```

```

                  i_name      | w_name      | s_quantity
-----+-----+-----
dGt8rEsWdEj2H2wRRYc1oU    | sG9udYG     |          11
AVasgnJpvGmsAgJ            | kJcpU09J3   |          10
AVasgnJpvGmsAgJ            | QfRqpZzR25  |          11
v0YrU3GQC0x4bkicbBjKuzSu  | vf6ezbz     |          11
OTBk92vzUnchdZsCCcE       | EsMwX4M     |          11
OTBk92vzUnchdZsCCcE       | XcoveRpN    |          11
OTBk92vzUnchdZsCCcE       | nUMJoJ0tAS  |          10
wYKkn5t13AXP5V3GIFTdY8    | tZI1Hzwb    |          10
chQsxmTkqFwCY8Zu4CSW      | ERs4w3      |          11
LaqgoMIUwgbtHm2           | Sh8vR9lUT0  |          10
xDhorSeZm3dN9Eo4UIIhoyE   | fTDg0WpPQs  |          10
QDGpRW58CxQye3nviDRNaJyW  | Gpk6kI       |          11
dtEQK82ogM9LFaV2V9PF7BY   | UnQMhV       |          11
dtEQK82ogM9LFaV2V9PF7BY   | kUMmiF5i0    |          11
V7M92zd5gheyhKovS7j       | Y2Qa6Lhnc   |          11
cGQCyoLZsVMHfzrDGLHN7     | nUMJoJ0tAS  |          10
cGQCyoLZsVMHfzrDGLHN7     | L5vGjVYKOK  |          11
ro7DqgDIUwhf4QNa3LBRrM7x  | BxUVUXR      |          11
xJ5f8ZBg19awYpCv8         | LjkFTlKG     |          10
LVtTsE0T5ooxPkM3          | nUMJoJ0tAS  |          11
iyDipUqu1d39q1BQ5819      | s8e96cDard   |          10
TsmDxw7v570tvXoKCyTvh5g5  | Je9C140Xtx   |          11
TsmDxw7v570tvXoKCyTvh5g5  | kUMmiF5i0    |          10
wCGRBevCLH065Cd1u         | fTDg0WpPQs  |          11
k4HJWemv7A8EP5NZXEx0WfRT  | q3CPrCoZ     |          10
UNIZ0xhkAZ1x41Cjdi        | Je9C140Xtx   |          11
02uJHSbqBV4vBYWkutXLC     | Je9C140Xtx   |          10
COaouWVXUWZdqembdTewU     | L5vGjVYKOK  |          10
COaouWVXUWZdqembdTewU     | yn03sginC    |          10
y3qDxYB8BPLP7dQ0yG9q1LAg  | Y2Qa6Lhnc   |          10
y3qDxYB8BPLP7dQ0yG9q1LAg  | KLO4z0f9     |          11
rRotV00Rs51L0W0UcejL      | uEtyc0jMHD   |          11
KPtX3Mog6G44Vt4qQ3WY      | kJcpU09J3   |          10
A28A102VS2ixxxRH2pCqpl    | BxUVUXR      |          11
V6iCmtQQ9Lv3tUi0Q0qpdrB7  | XcoveRpN     |          10
M1z4kBnSVciTIhCmvFne      | vf6ezbz     |          11
sP6emFgrNkSFZj            | nUMJoJ0tAS  |          10
p0fLA5hJzILzhho50hRb      | ERs4w3       |          10
S8LDLopJGq97ts3W1YM       | uEtyc0jMHD   |          11
S8LDLopJGq97ts3W1YM       | Sh8vR9lUT0  |          10
S8LDLopJGq97ts3W1YM       | s8e96cDard   |          10

```

LSQniLE5SFC0lNgdHuVXw1	LX82bDs	11
rPtv8Uw3TJdb6F7	Wa7HLjzX	10
FWlT3RMdLzHC3TS046QCTT	nUMJoJ0tAS	11
fpAE7itK4gCm9mxsi	ERS4w3	11
IMbGNnatg629K1cvG2	ERS4w3	11
IMbGNnatg629K1cvG2	XwcR6kz	11
Rm2vGsQLxpnlSbxrti29vh	kJcpU09J3	10
Rm2vGsQLxpnlSbxrti29vh	ii0MDKxAg0	11
rmPgqtqyAMgEQjBAfiGapjn2	ak0vUwFZcE	10
yGsYckYAbbvSuvS	yn03sginC	11
t6S5GHADVUNb7NN0	ftDg0WpPQs	11
ThQPmbxy0H44vT694Faj0tPg	Wa7HLjzX	10

5. 找出给广东销售区域供货的仓库都来自哪个省和城市。

```
benchmarksql=> WITH dist AS (
benchmarksql(>   SELECT d_w_id
benchmarksql(>   FROM bmsql_district
benchmarksql(>   WHERE d_state = 'GD'
benchmarksql(> )
benchmarksql-> SELECT w_state, w_city
benchmarksql-> FROM bmsql_warehouse, dist
benchmarksql-> WHERE w_id = d_w_id;
w_state | w_city
-----+-----
(0 rows)
```

发现没有一行之后，决定使用下列语句查找 `bmsql_district` 表中是否含有 广东省 的区域

```
SELECT d_state, d_city
FROM bmsql_district
ORDER BY d_state;
```

在表中找到 G 开头的省份，如图，发现确实没有广东

FY	PHsFagR1TzL9q
FY	xnzU5y2XIXPPj
GB	QWKTWlyrkVY
GF	02R5wR2fd5Qv02Nlt5F
GH	rB2Apt187Hw
GJ	IE69Wk1mTf
GJ	cy7n43RLtjlskUCS6r1
GL	fEolWnjisrkWINC0kj9L
GN	HBZv1DeAueCARNo9nX
GN	Gb2Vgwc08f008I
GN	mnyV6q36872Fv
GO	yUHko79AY8DNbtA35TQ
GS	JkDAZ0KRM9Bu
GS	QHqwteyJsUCR
GU	zDyF43j7ekX1X1M
GW	yHeeS060Es4YBHNkUh
GZ	TiVY7ZLjq0l
HB	u01YfqSGCQm6vM
HD	oBoBB45YNz4R
HG	H3kYd0Uar0Wf