1. 下载BenmarkSQL

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| https://github.com/meiq4096/benchmarksql-5.0 |

1. 解压安装

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| unzip benchmarksql-5.0-master.zip  |

1. 修改参数文件在目录benchmarksql-5.0-master/run/props.ob下面,编辑后内容如下：

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| [root@ob run]# cat props.ob db=oracledriver=com.alipay.oceanbase.obproxy.mysql.jdbc.Driverconn=jdbc:oceanbase://172.22.150.7:2883/trade?useUnicode=true&characterEncoding=utf-8user=root@obtest#testpassword=Zls19830907)warehouses=1loadWorkers=5terminals=5//To run specified transactions per terminal- runMins must equal zerorunTxnsPerTerminal=0//To run for specified minutes- runTxnsPerTerminal must equal zerorunMins=1//Number of total transactions per minutelimitTxnsPerMin=0//Set to true to run in 4.x compatible mode. Set to false to use the//entire configured database evenly.terminalWarehouseFixed=true//The following five values must add up to 100newOrderWeight=45paymentWeight=43orderStatusWeight=4deliveryWeight=4stockLevelWeight=4// Directory name to create for collecting detailed result data.// Comment this out to suppress.resultDirectory=my\_result\_%tY-%tm-%td\_%tH%tM%tSosCollectorScript=./misc/os\_collector\_linux.pyosCollectorInterval=1 |

执行创建表脚本报错：

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| [root@ob run]# sh runSQL.sh props.ob sql.common/tableCreates.sqlrunSQL.sh: line 14: source: funcs.sh: file not found[root@ob run]# |

该报错解决如下，修改runSQL.sh文件，修改内容如下：

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| vi runSQL.sh# ----# Load common functions# ----source /tmp/benchmarksql-5.0-master/run/funcs.sh $1 |

在执行脚本：sh runSQL.sh props.ob sql.common/tableCreates.sql

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| [root@ob run]# sh runSQL.sh props.ob sql.common/tableCreates.sql# ------------------------------------------------------------# Loading SQL file sql.common/tableCreates.sql# ------------------------------------------------------------create table bmsql\_config (cfg\_name varchar(30) primary key,cfg\_value varchar(50));create table bmsql\_warehouse (w\_id integer not null,w\_ytd decimal(12,2),w\_tax decimal(4,4),w\_name varchar(10),w\_street\_1 varchar(20),w\_street\_2 varchar(20),w\_city varchar(20),w\_state char(2),w\_zip char(9));create table bmsql\_district (d\_w\_id integer not null,d\_id integer not null,d\_ytd decimal(12,2),d\_tax decimal(4,4),d\_next\_o\_id integer,d\_name varchar(10),d\_street\_1 varchar(20),d\_street\_2 varchar(20),d\_city varchar(20),d\_state char(2),d\_zip char(9));create table bmsql\_customer (c\_w\_id integer not null,c\_d\_id integer not null,c\_id integer not null,c\_discount decimal(4,4),c\_credit char(2),c\_last varchar(16),c\_first varchar(16),c\_credit\_lim decimal(12,2),c\_balance decimal(12,2),c\_ytd\_payment decimal(12,2),c\_payment\_cnt integer,c\_delivery\_cnt integer,c\_street\_1 varchar(20),c\_street\_2 varchar(20),c\_city varchar(20),c\_state char(2),c\_zip char(9),c\_phone char(16),c\_since timestamp,c\_middle char(2),c\_data varchar(500));create sequence bmsql\_hist\_id\_seq;You have an error in your SQL syntax; check the manual that corresponds to your OceanBase version for the right syntax to use near 'sequence bmsql\_hist\_id\_seq' at line 1create table bmsql\_history (hist\_id integer,h\_c\_id integer,h\_c\_d\_id integer,h\_c\_w\_id integer,h\_d\_id integer,h\_w\_id integer,h\_date timestamp,h\_amount decimal(6,2),h\_data varchar(24));create table bmsql\_new\_order (no\_w\_id integer not null,no\_d\_id integer not null,no\_o\_id integer not null);create table bmsql\_oorder (o\_w\_id integer not null,o\_d\_id integer not null,o\_id integer not null,o\_c\_id integer,o\_carrier\_id integer,o\_ol\_cnt integer,o\_all\_local integer,o\_entry\_d timestamp);create table bmsql\_order\_line (ol\_w\_id integer not null,ol\_d\_id integer not null,ol\_o\_id integer not null,ol\_number integer not null,ol\_i\_id integer not null,ol\_delivery\_d timestamp,ol\_amount decimal(6,2),ol\_supply\_w\_id integer,ol\_quantity integer,ol\_dist\_info char(24));create table bmsql\_item (i\_id integer not null,i\_name varchar(24),i\_price decimal(5,2),i\_data varchar(50),i\_im\_id integer);create table bmsql\_stock (s\_w\_id integer not null,s\_i\_id integer not null,s\_quantity integer,s\_ytd integer,s\_order\_cnt integer,s\_remote\_cnt integer,s\_data varchar(50),s\_dist\_01 char(24),s\_dist\_02 char(24),s\_dist\_03 char(24),s\_dist\_04 char(24),s\_dist\_05 char(24),s\_dist\_06 char(24),s\_dist\_07 char(24),s\_dist\_08 char(24),s\_dist\_09 char(24),s\_dist\_10 char(24)); |

造数据：

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| [root@ob run]# sh runLoader.sh props.obrunLoader.sh: line 8: source: funcs.sh: file not found[root@ob run]# vi runLoader.sh #!/usr/bin/env bashif [ $# -lt 1 ] ; then echo "usage: $(basename $0) PROPS\_FILE [ARGS]" >&2 exit 2fisource funcs.sh $1shiftsetCP || exit 1java -cp "$myCP" -Dprop=$PROPS LoadData $\* |

解决办法类似，如下：

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| [root@ob run]# vi runLoader.sh #!/usr/bin/env bashif [ $# -lt 1 ] ; then echo "usage: $(basename $0) PROPS\_FILE [ARGS]" >&2 exit 2fisource /tmp/benchmarksql-5.0-master/run/funcs.sh $1shiftsetCP || exit 1java -cp "$myCP" -Dprop=$PROPS LoadData $\* |

在执行造数据脚本：

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| [root@ob run]# sh runLoader.sh props.obStarting BenchmarkSQL LoadDatadriver=com.alipay.oceanbase.obproxy.mysql.jdbc.Driverconn=jdbc:oceanbase://172.22.150.7:2883/trade?useUnicode=true&characterEncoding=utf-8user=root@test#obtestpassword=\*\*\*\*\*\*\*\*\*\*\*warehouses=1loadWorkers=2fileLocation (not defined)csvNullValue (not defined - using default 'NULL')Worker 000: Loading ITEMWorker 001: Loading Warehouse 1Worker 000: Loading ITEM doneWorker 001: Loading Warehouse 1 done |

创建索引

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|  create index bmsql\_customer\_idx1 on bmsql\_customer(c\_w\_id,c\_d\_id,c\_last,c\_first);Query OK, 0 rows affected (2.574 sec)obclient [trade]> create index bmsql\_order\_idx1 on bmsql\_oorder(o\_w\_id,o\_d\_id,o\_carrier\_id,o\_id) local;Query OK, 0 rows affected (1.274 sec) |

执行性能压测：

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| sh runBenchmark.sh props.ob也需要修改该runBenchmark.sh路径Term-00, Running Average tpmTOTAL: 19.70 Current tpmTOTAL: 204 Memory Usage: 25MB / 241MB 06:17:19,860 [Thread-1] INFO jTPCC : Term-00, 06:17:19,860 [Thread-1] INFO jTPCC : Term-00, 06:17:19,861 [Thread-1] INFO jTPCC : Term-00, Measured tpmC (NewOrders) = 7.5706:17:19,861 [Thread-1] INFO jTPCC : Term-00, Measured tpmTOTAL = 19.706:17:19,861 [Thread-1] INFO jTPCC : Term-00, Session Start = 2024-03-09 06:16:0006:17:19,862 [Thread-1] INFO jTPCC : Term-00, Session End = 2024-03-09 06:17:1906:17:19,862 [Thread-1] INFO jTPCC : Term-00, Transaction Count = 25 |

查看前20 SQL的执行计划

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| obclient [oceanbase]> SELECT sql\_id, count(\*), round(avg(elapsed\_time)) avg\_elapsed\_time, round(avg(execute\_time)) avg\_exec\_time FROM v$sql\_audit s WHERE s.db\_name='trade' GROUP BY sql\_id order by avg\_elapsed\_time desc limit 20;+----------------------------------+----------+------------------+---------------+| sql\_id | count(\*) | avg\_elapsed\_time | avg\_exec\_time |+----------------------------------+----------+------------------+---------------+| 4939724541E5F423190D4AF52F2ACCD7 | 1 | 993384 | 711934 || F86483FB17A84B0EA8381F4FA4EBA1AA | 1 | 734731 | 729334 || 1838E7E251B1BA4339CCC88C5146FB81 | 1 | 621995 | 618027 || 7E4721D8365262EE06FC3AE4C343580A | 1 | 614337 | 611455 || 8E574096EBB891E4B8AB89AB1E228D0C | 1 | 465439 | 460976 || 44B9A0759F26D257A6809DA60454F3A4 | 1 | 418019 | 393424 || 49E1673CDABDC24B09B1E20E10F29F55 | 1 | 414378 | 412815 || C84218767866D760C2C9F33BF5A114A2 | 1 | 381376 | 228203 || 7686EEE3A85D9D6FF5C0A0D0F2772377 | 1 | 370221 | 520 || E97FF6485D3853BB783B0AA3D6E8B05D | 1 | 305043 | 303772 || 3B6366A4BBB3F3DD91FEE90A15DF4C2A | 1 | 271564 | 266488 || 2D1366676CD073B5199DF5888FB3B0D9 | 1 | 257289 | 252037 || 2447C440D7D94DAA18896F2EEFBD4D4C | 1 | 207978 | 199833 || A4525988E72C9537ED712A53518E5C6F | 1 | 184059 | 175067 || EB7BE9AF0EC5544B58DBB4D74AD3D336 | 1 | 151798 | 142944 || 7393444B5280DCEDF76E817AA70D51B2 | 1 | 139644 | 86200 || A7BD91B95A5D4861C13E0994AFC106D0 | 1 | 49004 | 35975 || EED5B82FBC97FA98E3F2C706A41CD449 | 2 | 30694 | 131 || 01828903736DEE7D4C5F36EEF3616498 | 1 | 25697 | 249 || ED9D53F3FD4BF914D81F9B7F5CD88F11 | 1 | 20847 | 263 |+----------------------------------+----------+------------------+---------------+20 rows in set (0.353 sec) |

查看执行计划

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| obclient [trade]> explain select \* from bmsql\_config;+--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+| Query Plan |+--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+| ===========================================|ID|OPERATOR |NAME |EST. ROWS|COST|-------------------------------------------|0 |TABLE SCAN|bmsql\_config|4 |37 |===========================================Outputs & filters: ------------------------------------- 0 - output([bmsql\_config.cfg\_name], [bmsql\_config.cfg\_value]), filter(nil),  access([bmsql\_config.cfg\_name], [bmsql\_config.cfg\_value]), partitions(p0) |+--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+1 row in set (0.016 sec) |

查看真实的执行计划

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| obclient [oceanbase]> select \* from gv$plan\_cache\_plan\_explain where tenant\_id=1001 and plan\_id=58 and IP='xxxx' and port='2882';Empty set (0.002 sec)obclient [oceanbase]> 4ce88eeb4c2f159551eef344c9a0e2b86dd9ec54b2a50e3e1552015b0917afeb |
| --获取某个DB平均执行时间最慢的20条SQLSELECT sql\_id, count(\*), round(avg(elapsed\_time)) avg\_elapsed\_time, round(avg(execute\_time)) avg\_exec\_time FROM v$sql\_audit s WHERE s.db\_name='trade' GROUP BY sql\_id order by avg\_elapsed\_time desc limit 20;  获取SQL文本和SQL\_IDselect distinct query\_sql,plan\_id,TENANT\_ID from v$sql\_audit where sql\_id='A7BD91B95A5D4861C13E0994AFC106D0';--查看真实执行计划select \* from gv$plan\_cache\_plan\_explain where tenant\_id=1001 and plan\_id=58 and IP='xxxx' and port='2882'; |