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=oracle  driver=com.alipay.oceanbase.obproxy.mysql.jdbc.Driver  conn=jdbc:oceanbase://172.22.150.7:2883/trade?useUnicode=true&characterEncoding=utf-8  user=root@obtest#test  password=Zls19830907)  warehouses=1  loadWorkers=5  terminals=5  //To run specified transactions per terminal- runMins must equal zero  runTxnsPerTerminal=0  //To run for specified minutes- runTxnsPerTerminal must equal zero  runMins=1  //Number of total transactions per minute  limitTxnsPerMin=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 100  newOrderWeight=45  paymentWeight=43  orderStatusWeight=4  deliveryWeight=4  stockLevelWeight=4  // Directory name to create for collecting detailed result data.  // Comment this out to suppress.  resultDirectory=my\_result\_%tY-%tm-%td\_%tH%tM%tS  osCollectorScript=./misc/os\_collector\_linux.py  osCollectorInterval=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.sql  runSQL.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 1  create 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.ob  runLoader.sh: line 8: source: funcs.sh: file not found  [root@ob run]# vi runLoader.sh  #!/usr/bin/env bash  if [ $# -lt 1 ] ; then  echo "usage: $(basename $0) PROPS\_FILE [ARGS]" >&2  exit 2  fi  source funcs.sh $1  shift  setCP || exit 1  java -cp "$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 bash  if [ $# -lt 1 ] ; then  echo "usage: $(basename $0) PROPS\_FILE [ARGS]" >&2  exit 2  fi  source /tmp/benchmarksql-5.0-master/run/funcs.sh $1  shift  setCP || exit 1  java -cp "$myCP" -Dprop=$PROPS LoadData $\* |

在执行造数据脚本：

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| [root@ob run]# sh runLoader.sh props.ob  Starting BenchmarkSQL LoadData  driver=com.alipay.oceanbase.obproxy.mysql.jdbc.Driver  conn=jdbc:oceanbase://172.22.150.7:2883/trade?useUnicode=true&characterEncoding=utf-8  user=root@test#obtest  password=\*\*\*\*\*\*\*\*\*\*\*  warehouses=1  loadWorkers=2  fileLocation (not defined)  csvNullValue (not defined - using default 'NULL')  Worker 000: Loading ITEM  Worker 001: Loading Warehouse 1  Worker 000: Loading ITEM done  Worker 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) = 7.57  06:17:19,861 [Thread-1] INFO jTPCC : Term-00, Measured tpmTOTAL = 19.7  06:17:19,861 [Thread-1] INFO jTPCC : Term-00, Session Start = 2024-03-09 06:16:00  06:17:19,862 [Thread-1] INFO jTPCC : Term-00, Session End = 2024-03-09 06:17:19  06:17:19,862 [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$plan\_cache\_plan\_explain where tenant\_id=1001 and plan\_id=58 and IP='xxxx' and port='2882';  Empty set (0.002 sec)  obclient [oceanbase]>  4ce88eeb4c2f159551eef344c9a0e2b8  6dd9ec54b2a50e3e1552015b0917afeb |
| --获取某个DB平均执行时间最慢的20条SQL  SELECT sql\_id, count(\*), round(avg(elapsed\_time)) avg\_elapsed\_time, round(avg(execute\_time)) avg\_exec\_time  FROM v$sql\_audit s  WHERE s.db\_name='trade'  GROUP BY sql\_id  order by avg\_elapsed\_time desc limit 20;      获取SQL文本和SQL\_ID  select 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'; |