

NO ERROR!!!

Basic:

test function create table:

create table student (name, ID, totalScore);

insert

insert into student values 'Tom', 111222, 300;

insert into student values "Mary", 122112, 238;

insert into student values Kitty, 121212, 275;

print

print student;

select

select ID from student;

select name from student where totalScore > 250;

select name, totalScore from student where ID >= 121212;

select ID, totalScore from student where name = "Tom";

create table when it already exists

create table student (studentName, PE, Geography, Chemistry);

insert

insert into student values Tom, 100, 100, 100;

insert into student values Alice, 78, 94, 100;

insert into student values Jerry, 100, 65, 84;

insert into student values Peter, 86, 80, 80;

insert into student values Helen, 92, 95, 84;

insert into student values Luo, 86, 89, 90;

print

print student;

store

store student;

select from single table

select Geography, Chemistry from student where PE = 100;

select studentName from student where Geography = 80;

select studentName, Chemistry from student where Chemistry > 90;

select studentName, PE from student where PE >= 86;

create table ... as ...

create table students as select studentName from student;

print students;

create table students as select studentName, Chemistry from student;

print students;

create table students as select studentName from student where Chemistry = 84;

print students;

create table students as select studentName from student where PE = 86 and
Geography > 85;

print students;

grades.db

```

load grades;
print grades;
# insert
insert into grades values 10006, Luo, 87, 90, 94;
print grades;
insert into grades values 10006, Luo, 87, 90, 94;
print grades;
# select from multi-table
select PE, Geography from student, grades where Chemistry = 100;
select Chemistry, PE from student, grades where PE > 86;
select Chemistry, Geography, PE from student, grades where PE >= 86;
# create table ... as ...
create table ChemistryGrade as select studentName, Chemistry from student, grades;
print ChemistryGrade;
print ChemistryGrade;
create table goodStudent as select studentName from student, grades where PE > 90
and Chemistry > 90;
print goodStudent;
create table Chemistry as select studentName, Chemistry from student, grades where
Chemistry >= 94;
print Chemistry;
# exit
exit;
Test2
# load
load students;
load enrolled;
load schedule;
# select
# single table
select SID, Firstname from students where Lastname = 'Chan';
# multi-table
select Firstname, Lastname, Grade from students, enrolled where CCN = 21001;
# create table ... as ...
create table enrolled2 as select SID from enrolled, schedule where Dept = 'EECS' and
Num = '61A';
# print
print enrolled2;
# select
select Firstname, Lastname from students, enrolled2;
# quit
quit;
# ERROR output
1. Unknow type:

```

load students;

(SQL syntax error: unknown command type)

2. No semicolon (;):

load students

(SQL syntax error: require ';' for the end of the statement)

3. Create table command

- a) lack table name: create table <table name> (<column name>+,)

create table;

SQL syntax error: create table command lacks table name

- b) lack column name:

create table table1;

SQL syntax error: create table command lacks column name

- c) lack parentheses;

create table table1 col;

SQL syntax error: create table command requires parentheses

- d) duplicate columns;

create table table1 (col1, col2, col3, col1);

SQL syntax error: create table command has duplicate columns

- e) lack column;

create table table1 ();

SQL syntax error: create table command lacks columns

4. load command

- a) lacks table name

load;

SQL syntax error: load command lacks table name

- b) meaningless parameter

load s student;

SQL syntax error: load command has meaningless parameter

- c) file doesn't exist

load sd;

Error: File doesn't exist.

5. store command

- a) lacks table name

store;

SQL syntax error: store command lacks table name

- b) meaningless parameter

store s student;

SQL syntax error: store command has meaningless parameter

- c) table doesn't exist

store a;

Error: Table doesn't exist.

6. insert command

- a) lacks table name

insert into;

SQL syntax error: insert command lacks table name

- b) lacks key word values

```
insert into values 1, 2, 3;
```

SQL syntax error: insert command lacks key word values

- c) lack completed "

```
insert into students values 'je, q, w;
```

(need existed table)

SQL syntax error: lack completed "

- d) table doesn't exist

```
insert into studn values a, b, c;
```

Error: Table doesn't exist.

- e) lack literals

```
insert into students values a, s, d;
```

Error: Lack literals.

- f) Too many literals

```
insert into students values 1, 2, s, f, f, s, f, f, s, x, d;
```

Error: Too many literals.

7. print command

- a) lack table name

```
print;
```

SQL syntax error: print command lacks table name

- b) has meaningless parameter

```
print s students;
```

SQL syntax error: print command has meaningless parameter

- c) table doesn't exist

```
print s;
```

Error: Table doesn't exist.

8. comparing expression

- a) no such comparing expression

```
select Lastname from students where YearEnter ! 2003;
```

SQL syntax error: no such comparing operation

9. select

- a) lacks from

```
select Lastname students;
```

SQL syntax error: select command lacks from key word

- b) lack table name parameter

```
select Lastname from;
```

SQL syntax error: select command lacks table name parameter

- c) lack column parameter

```
select from students;
```

SQL syntax error: select command lacks column parameter

- d) lack condition parameter

```
select Lastname from students where;
```

SQL syntax error: select command lacks conditions parameter

- e) has duplicate key word where

```
select Lastname from students where YearEnter > 2003 where YearEnter > 2000;
```

SQL syntax error: select command has duplicate key word where

- f) more than two tables

```
select studentName from students, enrolled, schedule;
```

Error: More than 2 tables

- g) type

```
select PE from student where Chemistry < '11';
```

Error: The left and right data types of condition "Chemistry" do not match

10. create table

- a) lack table name

```
create table;
```

SQL syntax error: create table command lacks table name

- b) lack key word 'select'

```
create table stude as YearEnter from students;
```

SQL syntax error: create table as command lacks key word select

11. store: table doesn't exist

```
store sd;
```

Error: Table doesn't exist.