我的机经补充

left join and in-line view

Product

Product_id	Product
1	1001
2	1002
3	1003

Sales

Product_id	Sales
3	100
1	200
5	100
1	200
3	100
1	100

```
Proc sql;
  Select p.product s.totalsales
        From  product as p
              left join (
                        select sum(sales) as totalsales
                        from sales as s)
              on p.product_id=s.product_id;
quit;
```

What is the output?

Answer:

Product	Totalsales
1001	500
1002	.
1003	200

No.4 from 63 题库

干扰选项 :into group separate=',’

正确选项 into :GROUPS separated by ','

关于 view 考了三道题，

（1）哪个个 view 的命名 code 正确？ data xxx/ view=xxx （view 和 data set 的命名必须一样）

（2）q. 11 变型，改了 data set 命名，并且只生成一个 data set。选项原理木有改。

（2）生成了 view 之后在 proc mean 中如何引用？和普通 data set 一样。（后面机经总结中也有）

Proc sort data=xxx Nodupkey;By var; 考了三道

（1）q.45 题目明确 unsorted data set， 所以 first 那个不能用

（2）给了 data set 和 desired output，要求选 code。 发现是要生成 unique value of key variable. 只有 proc sort nodupkey; by var 的选项对，有干扰选项 proc sort nodup; by var;

（3）后面机经中提到的 q.45 变型 I

in-line view 另外还考了一道题，给了一段 code 明确告知 in-line view 中给定的 condition 有 multiply observations satisfied the condition， 问 program 运行结果。答案是运行出错没有结果，因为 in-line view return multiple results.

考到的填空题目（后面论坛机经总结中有详细题目）

out union corr

average of … is 7

%put _Global_ ;

HashAlpha

人大经济论坛机经总结

New questions

SQL

1. 填空 Data three; set one two; run;

⇔ proc Append base=one data=two;run;

⇔ proc sql; select * from one OUT UNION CORR select * from two;quit;

2. Merge statement in data procedure ⇔ proc sql; FULL join with coalesce() function

63 题库 q.13 变型

Note: before using merge procedure, we need to sort variable first.

In the question, one table is unsorted, so we cannot use merge procedure.

3. in-line view 考了两道题

(i)

```
 proc sql;
    create table forecast as
    select a.*, b.sales
    from actual a, _________
   where a.dept=b.dept;
quit;
```

Answer:

```
(select  avg(revenue) as average
  from Budegt
  group by 1) b
```

Note, if select is out of the parentheses, then it is wrong. Beside, in-line view cannot use order by statement.

e.g. the following code is wrong

```
select( avg(revenue) as average
from Budegt
group by 1) b
```

(ii) given a failed program, ask the reason of failure.

```
Proc sql;
   select  Jobcode, Salary,
         (select avg(Salary)
               from WORK.PILOTS
               order by Jobcode) as Avg
```

```
   from WORK.PILOTS
    order by ID;
quit;
```

Answer: Order By statement cannot be used inside of an in-line view.

Warning: There is another choice says that if using in-line view then we cannot use Order By statement. This is not true. The ORDER BY ID statement in the outside query is OK.

4. Horizontal join set operator

(i) right join

Two data sets

Work.One
year sales
2001 800
2001 500
2003 700

Work.Two
year profit
2001 100
2002 200

```
proc sql;
  select sum(profit)
  from one right join two
  on one.year=two.year;
quit;
```

what is the output: 400

A. 100
B. 300
C. 400
D. 500

There are two 2001 year in the left set(Work.one), so the joined data set has three observations for the variable profit: 100, 100, 200

Sum(profit)=400

5. Vertical join set operator, it is about except operator, given two data sets,

ask about the output. Choose the answer with one

Answer:

Charlie

Omar

6. nested query and inner join

given two data sets and SQL code, ask for the output.

Choose the answer with Thomas, Jones, Smith, but no Adam. Besides, there is a descreasing option in the code, so the Sales need to be in decreasing order.

7. Outer Join

except corr, what is the output.

Excep all

Excep

Intersect corr

Outerunion corr

Union corr

MACRO

1. given data set and macro program, choose missing correct code

A. &Num=California
B. call symputx('&Num', California)

Answer: B

2.

```
%let this_year=%substr(&sysdate9, 6);
%let next_year=&this_year+1;
%let check_year=%eval(&next_year<2016);
%put two years after this year is &next_year+1;
%put check_year is &check_year;
```

Assume system time is 01Jan2013, what is the output?

Answer:
two years after this year is 2013+1+1
check_year is 1

3. %put option 填空

```
%let a=1;
%let b=2;
%macro test;
        %let c=4;
        %do i=1 %to 3;
            %letd&i=123&i;
        %end;
        %put _____;
%mend;
%let c=3;
%test;
Output
[xxx] a=1;
[xxx] b=2;
[xxx] c=4;
```

SAS log shows three global macro variables, so we should use

%put __Global__ ;

4. 引用 macro in a WHERE clause 填空

given two datasets, variables: state_ID and state, and state_ID and city
%let selection=North Carolina;
proc sql step;
…
where s.state=__"&selection"__;
quit;

5. macro variable with macro trigger signs.

Output title "XXX A&M XXX", which macro definition should be used.
A. title %sysfundc("XXX A&M XXX")
B. title %str("XXX A&M XXX");
C. title %nrstr("XXX A&M XXX");
D. title %bquote("XXX A&M XXX);

Answer: C. %nrstr(…), to mask macro trigger sign &.

Advanced Tech

1. Hash object 填空

the first part of code gives Key:valuepair definition, the variables are somekey and someAlpha, we need to fill in the hash object definition.

Some.definedata(“ someAlpha”);

e.g in the Guid book.

```
 declare has Goal();
Goal.definekey(“QtrNum”);
Goal.definedata(“GoalAmount”);
Goal.definedone();
```

2. repeated need a local data set, what kind of effect does SASFILE statement has to the Global statement.

Answer: reduce CPU, reduce I/O, increase memory

3. IDXWHERE 指定必须用 index，但是具体用哪个 SAS 可以自己选择

IDXNAME=… (instruc SAS to use a specific index for where processing)

4. FCMP 填空

```
proc fcmp outlib=sasuser.funcs.trial;
  …
endsub;

options    cmplib     =sasuser.funcs;
data null;
  …
run;
```

3. Compress 填空

A data set has 2000 million observations and 300 character variables, what is the correct way to compress.
Compress= YES (Char is also OK.)

4. Efficiency of If-then/Else and Where clauses

A compressed data set has 200,000 observations, 300 variables. We need 20% of character observations, what method can minimize computer resource usage?

A. If-then/Else clause
B. Case
C. Where
D. …

Answer: WHERE clause is more efficient, since it only read 20% observations as the condition required.

5. KEEP&DROP statement and option Efficiency

A data set ahs 300,000 observations, 20 character variables, 50 numeric variables. We need 5 character variables and 7 numeric variables, which one is the most efficient:

A. Drop=option in data step
B. KEEP=option in data step
C. Keep =option in set statement
D. Keep statement

Answer: Keep=option in set statement. With it the system only read the desired variables.

6. multi array

Array multi{1:2, 2}(1,2);
Do i=1 to 2;
Do j=1 to 2;
Output=multi{I,j};
What is the corresponding values of i, j, and output.

Answer:
A 2*2 multi-array, only two initial values, so the array is following
$\begin{pmatrix} 1 & 2 \\ . & . \end{pmatrix}$, that means

i	j	output
1	1	1
1	2	2
2	1	.
2	2	.

7. Using View

Data company.newdata/view=company.newdata;
Infile<fileref>;
<Data step statements>;
run;

Submit the above code and create a data step view, then we need to use this view in the PROC MEANS procedure, which one to use:

A. Proc Means view=company.newdata;
B. Proc Means data=company.newdata/view=company.newdata;
C. Proc means data company.newdata/view
D. Proc means data=company.newdata

Answer: D. proc means data=dataset_name. The same way as to use a normal data set.

另外 View 的考点还有 63 题库 q.11, q.29

8. Format search library

given two format with the same name $Gender, one store in Mylib, and the other in library.

Proc print data=… ; run;
Using the format $Gender. From the desired output, we can tell that the format in Mylib is used.

Options fmtsearch=_____; Which statement should be filled in here?

A. no fmsearch needed
B. fmsearch=(mylib, library)
C. fmsearch=(library, mylib)
D. fmsearch=(mylib)

Answer: B. With this option, system first check the work library, then MYLIB, and then LIBRARY.
Note: D is wrong.
Without noting fmsearch options, the default search order is
(1 work.formats 2 library.formats 3 mylib.formats)
If specified as D, then the search order is
(1. Work.formats 2. library.formats 3. mylib)
If specified as B, then the search order is
(1. Work.formats 2. mylib 3.library.formats)

9. Check pagesize information using Proc Contents procedure. (填空或者 given output and choose code)

Which is equivalent to Describe Table Var statement in SQL procedure.

Note: 迷惑选项 describe table=var;

BASE

1. 填空

given data sets and program code, calculated the returned average value from the subquery .

Avg(Num)=avg(6,8)=7

63 题库及变型

q.9 变型

Given the SAS data set WORK.TRANSACT:

Rep	Cost	Ship
SMITH	200	50
SMITH	400	20
JONES	100	10
SMITH	600	100
JONES	100	5

The following output is desired:

Rep	
JONES	105

JONES 105
SMITH 105
SMITH 105
SMITH 105

Which SQL statement was used?
A.
```
select Rep, min(Cost+Ship)
    from WORK.TRANSACT
order by Rep
;
```
B.
```
select Rep, min(Cost,Ship) as Min
      from WORK.TRANSACT
summary by Rep
order by Rep
;
```
C.
```
select Rep, min(Cost,Ship)
      from WORK.TRANSACT
group by Rep
order by Rep
;
```
D.
```
select Rep, min(Cost+Ship)
      from WORK.TRANSACT
group by Rep
order by Rep
```

Answer: A

q.10 变型

The following SAS program is submitted:

```
%let Value=11;
%let Add=5;
%let Newval=%eval(&Value/&Add);
%put &Newval;
```

What is the value of the macro variable Newval when the %PUT statement executes?
A. 0.555
B. 2
C. 1.8
D. 1

Answer: 2

q.11 变型

题干叙述有变动，但是答案不变

q.13 变型

given SAS data sets:

WORK.ONE
Id Name
--- ------
112 Smith
243 Wei
457 Jones

WORK.TWO
Id Salary
---- ------
243 150000
523 75000
355 45000

Our desired output is following, which is the correct program to get it?

id	name	salary
112	Smith	.
243	Wei	150000
355		450000
457	Jones	.
523		75000

A.
```
data WORK.COMBINE;
      merge WORK.ONE WORK.TWO;
      by Id;
 run;
```

B.
```
proc sql;

create table WORK.COMBINE as
  select
    coalesce(ONE.Id, TWO.Id) as Id,
    Name,
    Salary
  from WORK.ONE, WORK.TWO
  where ONE.Id=TWO.Id
;quit;
```

C.
```
proc sql;
      create table WORK.COMBINE as
      select
            coalesce(ONE.Id, TWO.Id) as Id,
            Name, Salary
       from WORK.ONE
            full join
            WORK.TWO
       on ONE.Id=TWO.Id
       order by Id
       ;quit;
```

D.
```
proc sql;
          create table WORK.COMBINE as
          select  Id,  Name, Salary
          from
                WORK.ONE
                full join
                WORK.TWO
```

```
on ONE.Id=TWO.Id
;quit;
```

Answer: C

Here A is wrong, because the data set WORK.TWO is not sorted by variable ID.

Here we need the equivalent sql procedure, full join with coalesce() function.

q. 15 变型，四道

(i)

Given the SAS data set ONE:

```
REP         COST
SMITH         20
SMITH         40
JONES         10
SMITH         60
JONES         10
```

The following SAS program is submitted:

```
proc sql;
  select rep, sum(cost)
    from one
    group by Rep
    order by Rep;
quit;
```

What is the Output

Answer:

```
   Rep
-------------------
JONES     20
SMITH    120
```

(ii)

same data set One as (i)

Which SAS program can generate the following result?

```
  Rep
----------------
JONES    20
JONES    20
SMITH  120
SMITH  120
SMITH  120
```

Answer: (注意，原机经 11/02/2014 答案错误！)

```
proc sql;
  select rep,
         (select sum(cost)
```

```
            from one as O1
           where O1.rep=O2.rep)
         from one as O2
  order by Rep;
quit;
```

(iii)

Data set ONE

REP	COST
SMITH	200
SMITH	400
JONES	100
SMITH	600
JONES	100
CHANG	400
JONES	.
CHANG	600

The following SAS program is submitted:

```
proc sql;
   select rep,  avg(cost) as Average
    from ONE
   group by rep
   having average ge 100
   order  by rep;
quit;
```

What is the output?

Note: here there is a missing value in the data set, pay attention to the value of mean in that case.

Answer:

Rep	Average
CHANG	500
JONES	100
SMITH	400

(iv)

Given the SAS data set WORK.ONE:

Rep	Cost
SMITH	200
SMITH	400
JONES	100
SMITH	600
JONES	100

The following SAS program is submitted;

```
proc sql;
   select  Rep,   avg(Cost)
   from WORK.ONE
     group by Rep
     order by Rep
;
quit;
```

Which result set would be generated?

Note: here it adds a “group by” statement comparing with the original question.

Answer:

```
Rep       Cost
--------- --------
JONES    100
SMITH    400
```

q.16 变型，两道

(i)
Given the SAS data sets:

```
WORK.MATH1A          WORK.MATH1B
Name      Fi                  Name     Fi
----------------              ---------------
Lauren      L                 Smith    M
Patel       A                 Lauren   L
Chang       Z                 Patel    A
Hillier     R
```

The following SAS program is submitted:

```
proc sql;
select *
from WORK.MATH1A
[_insert_set_operator_]
select *
from WORK.MATH1B
;
quit;
```

The following output is desired:

```
Name      Fi
----------------
Chang       Z
Hillier     R
```

Which SQL set operator completes the program and generates the desired output?
A. except corr
B. union corr
C. outer union corr
D. intersect corr

Answer: A. Actually here no option is needed. Except/Except all/Except corr give the same output.

(ii)

The following output is desired:
Name Fi

Lauren L
Patel A

Which SQL set operator completes the program and generates the desired output?
A. except corr
B. union corr
C. outer union corr
D. intersect corr

Answer: Intersect/Intersect corr/Intersect all. As last question, here option doesn't matter.

q.25 变型

Given the SAS data set SASUSER.HIGHWAY:
Steering Seatbelt Speed Status Count
---
absent No 0-29 serious 31
absent No 0-29 not 1419
absent No 30-49 serious 191
absent no 30-49 not 2004
absent no 50+ serious 216

The following SAS program is submitted:
%macro HIGHWAY(Belt=No);
proc print data=SASUSER.HIGHWAY;
where Seatbelt="&Belt" ;
run;
%mend;
%HIGHWAY(Belt=no)
How many observations appear in the generated report?
A. 0
B. 2
C. 3
D. 5

Answer: 2

q.36 变型 Hash Objects

选项都变了，应该选“Can only be used in Data Step”.

Advantages of Hash Objects
- use of character and numeric keys
- use of composite keys
- ability for faster lookup
- ability to be loaded from a SAS data set
- fine level of control (flexibility)
- ability to do chained lookups

Disadvantages of Hash Objects
- unique keys required
- DATA step only

q.37 变型

Given the SAS data sets:

WORK.CLASS1

Name	Course
Lauren	MATH1
Patel	MATH1
Chang	MATH1
Chang	MATH3

WORK.CLASS2

Name	Class
Smith	MATH2
Farmer	MATH2
Patel	MATH2
Hillier	MATH2

The following SAS program is submitted:

```
proc sql;
select Name
from WORK.CLASS1
[_insert_set_operator_]
select Name
from WORK.CLASS2
;
quit;
```

All kinds of transformation

Except all

Name
Chang
Chang
Lauren

Except/Except corr

Name
Chang
Lauren

Union all

name
Lauren
Patel
Chang
Chang
Smith
Farmer
Patel
Hillier

Union/union corr

name
Chang
Farmer
Hillier
Lauren
Patel
Smith

Intersect/intersect all/intersect corr

Name

Patel

Outer union

name	name
Lauren	
Patel	
Chang	
Chang	
	Smith
	Farmer
	Patel
	Hillier

here Outer union corr ⇔ union all

q.38 变型

The following SAS program is submitted:
%macro CHECK(Num=10);
%let Result=%eval(&Num gt 5);
%put Result is &result;
%mend;
%check(Num=4)

What is written to the SAS log?
A. Result is 0
B. Result is 1
C. Result is 10 gt 5
D. Result is true

Answer: A

q.39 变型

The following SAS program is submitted:
%let Mv=bicycles;
%macro PRODUCT(Mv=shoes);
%let Mv=clothes;

%mend;
%PRODUCT(Mv=tents)
%put Mv is &Mv;
What is written to the SAS log?
A. Mv is bicycles
B. Mv is clothes
C. Mv is shoes
D. Mv is tents

Answer: A

q.40 题目叙述有变化，考点不变。

Track resource usage system options:

STIMER: tracks the CPU time used to perform a task (DATA or PROC step). CPU time can be divided into System CPU time and User CPU time.

MEMRPT: tracks memory used while performing a task.

FULLSTIMER: tracks usage of additional resources. This option is ignored unless STIMER or MEMRPT is in effect. It can also be specified by the alias FULLSTATS.

STATS: writes information tracked by the above options to the SAS log.

q.41 变型

given log output, what is the macro debugging method here.

```
[XXX]: Parameter DShas value sasuser.houses
[XXX]:  %IF condition %sysprod(graph)=1 is TRUE
[XXX]:  Beginning execution.
[XXX]:  Parameter PROC has value gplot
[XXX]:  Parameter DATA has value sasuser.houses
```

Answer: mlogic

q.43 变型

Given the SAS data set WORK.ONE:

Rep	Cost
SMITH	200
SMITH	400
JONES	100
SMITH	600
JONES	100

The following SAS program is submitted:
proc sql;

```
   select  Rep, avg(Cost) as Average
         from WORK.ONE
    [either__insert_SQL_where_clause_]
    group by Rep
    [_or_ _insert_SQL_having_clause_]
;
quit;
```

The following output is desired:

```
 Rep    Average
--------------------
JONES     100
```

Which SQL clause completes the program and generates the desired output?
A. where calculated Average > (select avg(Cost) from WORK.ONE)
B. having Average > (select avg(Cost) from WORK.ONE)
C. having avg(Cost) < (select avg(Cost) from WORK.ONE)
D. where avg(Cost) > (select avg(Cost) from WORK.ONE)

Answer: C

q.45 变型, 两道 (unique value of a grouped variable)

(i)
Given data sets and SQL code with Select Distinct statement, which one has the same output.

The correct answer is proc SORT with Nodupkey, and with an option(drop=XXX).

Besides, BY variable cannot have the descending option, because in the SQL procedure, ORDER BY statement is in ascending order. So choose the answer like following:

```
proc  sort data=XXX
                  out=work.sorted (drop=xxx) nodupkey;
    by order_var;
run;
```

IF First.Customer_ID choice doesn't sort the data first, so cannot be used.

(ii) 填空

car column variables: year, model, color, name etc.

Model column varialbes: Sonata, Elantra, etc.

If __first.model__ =1, then output=…

Note: to create a list of unique variable values from a data set, there aethree methods:

1. proc SORT with Nodupkey and OUT=

2. data set with IF First.Customer_ID=1, but the data set need to be sorted first with variable Customer_ID.
3. proc SQL with SELECT DISTINCT statement

q.51 变型

The SAS data set WORK.TEMP is indexed on the variable ID;

Id Amount
-- ------
P 52
P 45
A 13
A 56
R 34
R 12
R 78

Will the following procedure successfully run?
proc print data=one;
by ID;
run;

Answer: run successfully

q.54 变型

The following SAS program is submitted:
%let Math1=Shoes;
%let Math2=Clothes;
%let Root=Math;
%let Suffix=2;
%put &&&Root&Suffix;

What is written to the SAS log?
A. &Name2
B. Clothes
C. &&&Root&Suffix
D. WARNING: Apparent symbolic reference ROOT2 not resolved.

Answer: B

q.55 变型

Given the SAS data sets:

WORK.ONE

Year	Qtr	Budget
2001	3	500
2001	4	400
2003	1	350

WORK.TWO

Year	Qtr	Sales
2001	4	300
2002	1	600

The following SAS program is submitted:

```
proc sql;
   select  TWO.*, budget
        from  WORK.ONE
    [_insert_join_operator_]
                WORK.TWO
     on ONE.Year=TWO.Year
;
quit;
```

The following output is desired:

```
Year  Qtr  Sales  Budget
------------------------------
2001    4      300      500
2001    4      300      400
  .       .        .       350
```

Which join operator completes the program and generates the desired output?

A. left join
B. right join
C. full join
D. outer join

Answer: left join

Note: here Two.* are the selected variables!

If we change the code as following

```
proc sql;
   select  One.*, sales
        from  WORK.ONE
         left join
                WORK.TWO
     on ONE.Year=TWO.Year
;
quit;
```

Then the result is

year	qtr	budget	sales
2001	3	500	300
2001	4	400	300
2003	1	350	.

Right Join Output

```
proc sql;
   select  TWO.*, budget
        from  WORK.ONE     right join     WORK.TWO
     on ONE.Year=TWO.Year
;
```

quit;

year	qtr	sales	budget
2001	4	300	500
2001	4	300	400
2002	1	600	.

q.60 变型

Given the data set SASHELP.CLASS:
Name Age
-------- -------
Mary 15
Philip 16
Robert 12
Ronald 15

The following SAS program is submitted:
%macro MP_ONE(pname=print);
proc &pname data=SASHELP.CLASS;
run;
%mend;
%MP_ONE(means)
%MP_ONE()

Which PROC steps execute successfully?
A. PROC MEANS only
B. PROC PRINT only
C. PROC MEANS and PROC PRINT
D. No PROC steps execute successfully

Answer: B

q.62 变型

把 “------>” 变成 “!!!” Doesn’t matter!

q.63 变型

The following SAS program is submitted:
%macro COLS1;
Name Age;
%mend;
%macro COLS2;
Height Weight;
%mend;

proc print data=SASHELP.CLASS;
var Weight Height %COLS1;
run;

Which variables are in the output in order?

Answer: Weight Height Name Age
Note, no semicolon after Age! The system ignores the extra semicolon.

其它
Advantage Technology Notes:

No index usage if

Where expression:

1) No single index could supply all required observations

- compound optimization condition:

i. at least the first two key variables in the composite index must be used in the WHERE conditions

ii. conditions are connected using the AND operator

iii. at least one condition must be the EQ or IN operator

2) any function other than TRIM or SUBSTR appears in the where expression

3) SUBSTR function does not search a string beginning at the first position

4) sounds-like operator(=*) is used;

SAS determines whether to use index or not:

If only a few observations are qualified -> use index

If most or all of the observations qualify -> use data file sequentially

- options that control index usage

(IDXWHERE=YES|NO)

(IDXNAME=…)

Factors affecting I/O

1) size of the subset relative to the size of the data file
2) order of data: data set is sorted on the indexed variables, fewer pages must be read into the input buffers
3) page size of the data file
4) number of buffers allocated
5) cost to uncompress a compressed file for a sequential read

Maintaining Indexes

-rename data set -> index file renamed

-rename variable -> variable renamed to new name in index file

- add observations -> value/identifier pairs added

-delete observations -> value/identifier pairs deleted; space recovered for re-use

-update observations -> value/identifier pairs updated if values change

-delete a data set -> index file delted

-rebuild a data set with a DATA step -> index file deleted

- sort the data set in place with the FORCE option the SORT procedure

  -> index file deleted

你需要重复用到同一个 local data set, 用 SASFILE 会对 Global statement 什么的有什么影响，选项有：CPU increase, I/O increase, memory increase。

Answer: Reduce some CPU usage, reduce I/O, increase memory

IF/ELSE & WHERE efficiency compare:

WHERE conditions are applied before the data enters the input buffer while IF conditions are applied after the data enters the program data vector. This is the reason why the WHERE condition is faster because not all observations have to be read and because it can only be applied on variables that exist in the input data set.

However, if your subset condition includes automatic variables or new variables created within the DATA step, then you must use the IF statement instead of the WHERE statement.

idxwhere和idxname
idxname是干嘛的？处理的时候指定某一个特定的index
idxwhere：指定必须用index，但是具体用哪个sas可以自己选择

SQL Knowledge

Vertical join

- union(all/corr), except(all/corr), intersect(all/corr), outer union(corr)

Horizontal join

-inner join

-outer join: left join, right join, full join

in-line view (order by 不能出现在 inline view 里面)

Append ⇔ out union corr

Merge ⇔ full join with coalesce() function

Proc datasets;

index create var /unique; (simple index)

index create var=(x y); (composite index)

index delete var;

Proc sql;

create (unique) index … ;

drop index …;

delect from table XXX <where-clause>; (deleting rows in table XXX)

alter table XXX

add	(add columns to a table)
drop	(drop columns from a table)
modifiy	(modify a column's length, informat, format and label)

drop table XXX; (delet tables, indexs and views)
drop view XXX;
drop index XXX from table XXX;