**注：本表不包含Oracle数据库的用户管理等。只是T-SQL的基本用法，通用性较强。**

**基本用法**

|  |  |
| --- | --- |
| 新建表： | create table table1( id varchar(**300**) primary key, name varchar(**200**) not null); |
| 插入数据 **增** | insert into table1 (id,name) values ('aa','bb'); |
| 删除数据 **删** | delete from table1 where id ='cc'; |
| 更新数据 **改** | update table1 set id = 'bb' where id='cc'; |
| 条件查询： **查** | select id,name (case gender when **0** then '男' when **1** then ‘女’ end ) gender from table1 |
| 删除表 | drop table table1; |
| 修改表名： | alter table table1 rename to table2; |
| 表数据复制： | insert into table1 (select \* from table2); |
| 复制表结构： | create table table1 select \* from table2 where **1**>**1**; |
| 复制表结构和数据： | create table table1 select \* from table2; |
| 复制指定字段： | create table table1 as select id, name from table2 where **1**>**1**; |

**数学函数**

|  |  |
| --- | --- |
| 绝对值：abs() | select abs(-**2**) value from dual; (2) |
| 取整函数（大）：ceil（） | select ceil(-**2.001**) value from dual; (-2) |
| 取整函数（小）：floor（） | select floor(-**2.001**) value from dual; (-3) |
| 取整函数（截取）：trunc（） | select trunc(-**2.001**) value from dual; (-2) |
| 四舍五入：round（） | select round(**1.234564**,**4**) value from dual; (1.2346) |
| 取平方：Power（m,n） | select power(**4**,**2**) value from dual; (16) |
| 取平方根:SQRT() | select sqrt(**16**) value from dual; (4) |
| 取随机数:dbms\_random(minvalue,maxvalue) | select dbms\_random.value() from dual; (默认是0到1之间)  select dbms\_random.value(**2**,**4**) value from dual; （2-4之间随机数） |
| 取符号：Sign() | select sign(-**3**) value from dual; (-1) |
| 取集合的最大值:greatest(value) | select greatest(-**1**,**3**,**5**,**7**,**9**) value from dual; (9) |
| 取集合的最小值:least(value) | select least(-**1**,**3**,**5**,**7**,**9**) value from dual; (-1) |
| 处理Null值：nvl(空值，代替值) | select nvl(null,**10**) value from dual; (10) |

**rownum相关**

|  |  |
| --- | --- |
| rownum小于某个数时可以直接作为查询条件（注意oracle不支持select top） | select \* from student where rownum <**3**; |
| 查询rownum大于某个数值,需要使用子查询，并且rownum需要有别名 | select \* from(select rownum rn ,id,name from student) where rn>**2**;  select \* from (select rownum rn, student.\* from student) where rn >**3**; |
| 区间查询 | select \* from (select rownum rn, student.\* from student) where rn >**3** and rn<**6**; |
| 排序+前n条 | select \* from (select rownum rn, t.\* from ( select d.\* from DJDRUVER d order by drivernumber)t )p where p.rn<**10**; |
| 排序+区间查询1 | select \* from (select rownum rn, t.\* from ( select d.\* from DJDRIVER d order by DJDRIVER\_DRIVERTIMES)t )p where p.rn<**9** and p.rn>**6**; |
| 排序+区间查询2 | select \* from (select rownum rn, t.\* from ( select d.\* from DJDRIVER d order by DJDRIVER\_DRIVERTIMES)t where rownum<**9** )p where p.rn>**6**;*效率远高于方式一* |

**分页查询（假设每页10条）**

**不包含排序：**

|  |  |
| --- | --- |
| 效率低 | select \* from (select rownum rn, d.\* from DJDRIVER d )p where p.rn<=**20** and p.rn>=**10**;  select \* from (select rownum rn, d.\* from DJDRIVER d )p where p.rn between **10** and **20**; |
| 效率高 | select \* from (select rownum rn, d.\* from DJDRIVER d where rownum<=**20** )p where p.rn>=**10**; |

**包含排序：**

|  |  |
| --- | --- |
| 排序+区间查询1（效率低） | select \* from (select rownum rn, t.\* from ( select d.\* from DJDRIVER d order by DJDRIVER\_DRIVERTIMES)t )p where p.rn<=**20** and p.rn>=**10**; |
|  | select \* from (select rownum rn, t.\* from ( select d.\* from DJDRIVER d order by DJDRIVER\_DRIVERTIMES)t )p where p.rn between **10** and **20**; |
| 排序+区间查询2（效率高） | select \* from (select rownum rn, t.\* from ( select d.\* from DJDRIVER d order by DJDRIVER\_DRIVERTIMES)t where rownum<=**20** )p where p.rn>=**10**; |

**字符函数**

|  |  |
| --- | --- |
| 字符串截取 | substr('abcdefg',**1**,**5**)substr, |
| 查找子串 | instr('abcdefg','bc') instr, |
| 连接 | 'Hello'||'World' concat, |
| 去前后空格 | trim(' wish ') trim, |
| 去后面空格 | rtrim('wish ') rtrim, |
| 去前面空格 | ltrim(' wish') ltrim, |
| 去前缀 | trim(leading 'w' from 'wish') deleteprefix, |
| 去后缀 | trim(trailing 'h' from 'wish') deletetrailing, |
|  | trim('w' from 'wish') trim1, |
|  | ascii('A') A1, |
| ascii(转换为对应的十进制数) | ascii('a') A2, |
|  | chr(**65**) C1, |
| chr(十进制转对应字符) | chr(**97**) C2, |
| length | length('abcdefg') len, |
|  | lower('WISH')lower, |
| 大小写变换 | upper('wish')upper, |
|  | initcap('wish')initcap, |
| 替换 | replace('wish1','1','youhappy') replace, |
| 转换，对应一位(前面的位数大于等于后面的位数) | translate('wish1','1','y')translate, |
|  | translate('wish1','sh1','hy')translate1, |
| 连接 | concat('11','22') concat |

**to\_number函数**

to\_number(expr)

to\_number(expr,format)

to\_number(expr,format,'nls-param')

**聚合函数**

|  |  |
| --- | --- |
| 项目条数 | count (distinct|all) |
| 平均数 | avg (distinct|all) |
| 最大值 | max (distinct|all) |
| 最小值 | min (distinct|all) |
| 标准差 | stddev(distinct|all) |
| 总和 | sum(distinct|all) |
| 中位数 | median(distinct|all) |

e.g.

select **median**(score) from student;

select classno, **avg**(score) score from student group by classno;