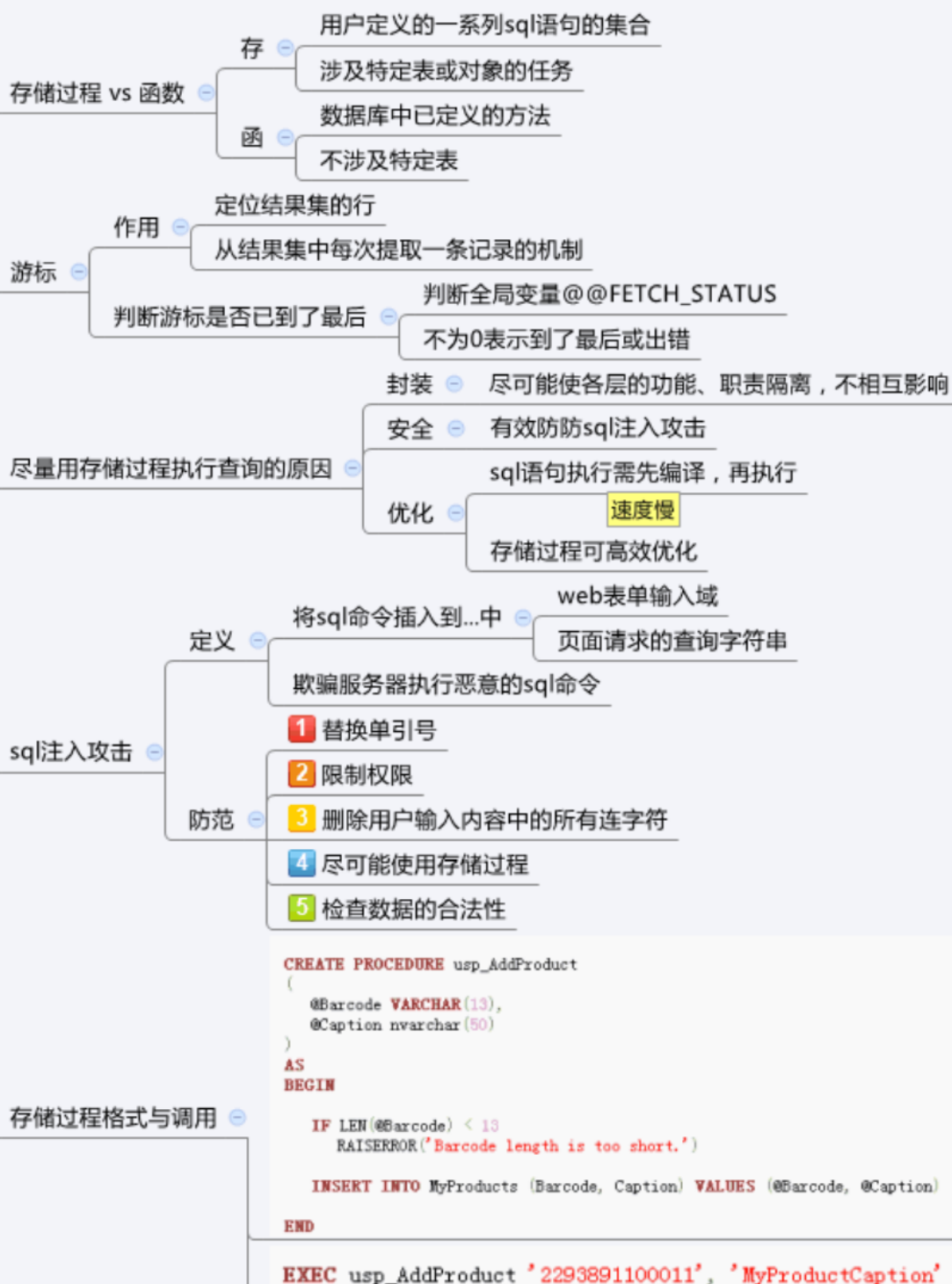


数据库总结

白秀秀

六、概念总结





二、关系运算

- 集合运算
 - 并
 - 定义 抽取两张表中所有行的运算
 - 须去重
 - 符号: \cup
 - 交
 - 定义 抽取既在表1, 又在表2中的行
 - 差
 - 定义 抽取其中一张表中独有行的运算
 - 符号: $-$
 - 笛卡尔积
 - 定义 将两张表的所有行进行排列组合
 - 符号: \times
 - 投影
 - 定义 抽取列的运算
 - 选择
 - 定义 抽取行的运算
 - 连接
 - 定义 如表中某字段是其他表中的主键
 - 通过连接运算, 可以将两张表连起来
 - 除
 - 定义 从“被除表格”中调取“除表格”中包含的所有行
 - 去掉“除表格”中所有列的运算
 - 总结 笛卡尔积的逆运算
- 关系运算

完成

Student	Task
Fred	Database1
Fred	Database2
Fred	Compiler1
Eugene	Database1
Eugene	Compiler1
Sara	Database1
Sara	Database2

DB项目

Task
Database1
Database2

完成 ÷ DB项目

Student
Fred
Sara

实例

R:

A	B	C
a1	b1	c2
a2	b3	c7
a3	b4	c6
a1	b2	c3
a4	b6	c6
a2	b2	c3
a1	b2	c1

S:

B	C	D
b1	c2	d1
b2	c1	d1
b2	c3	d2

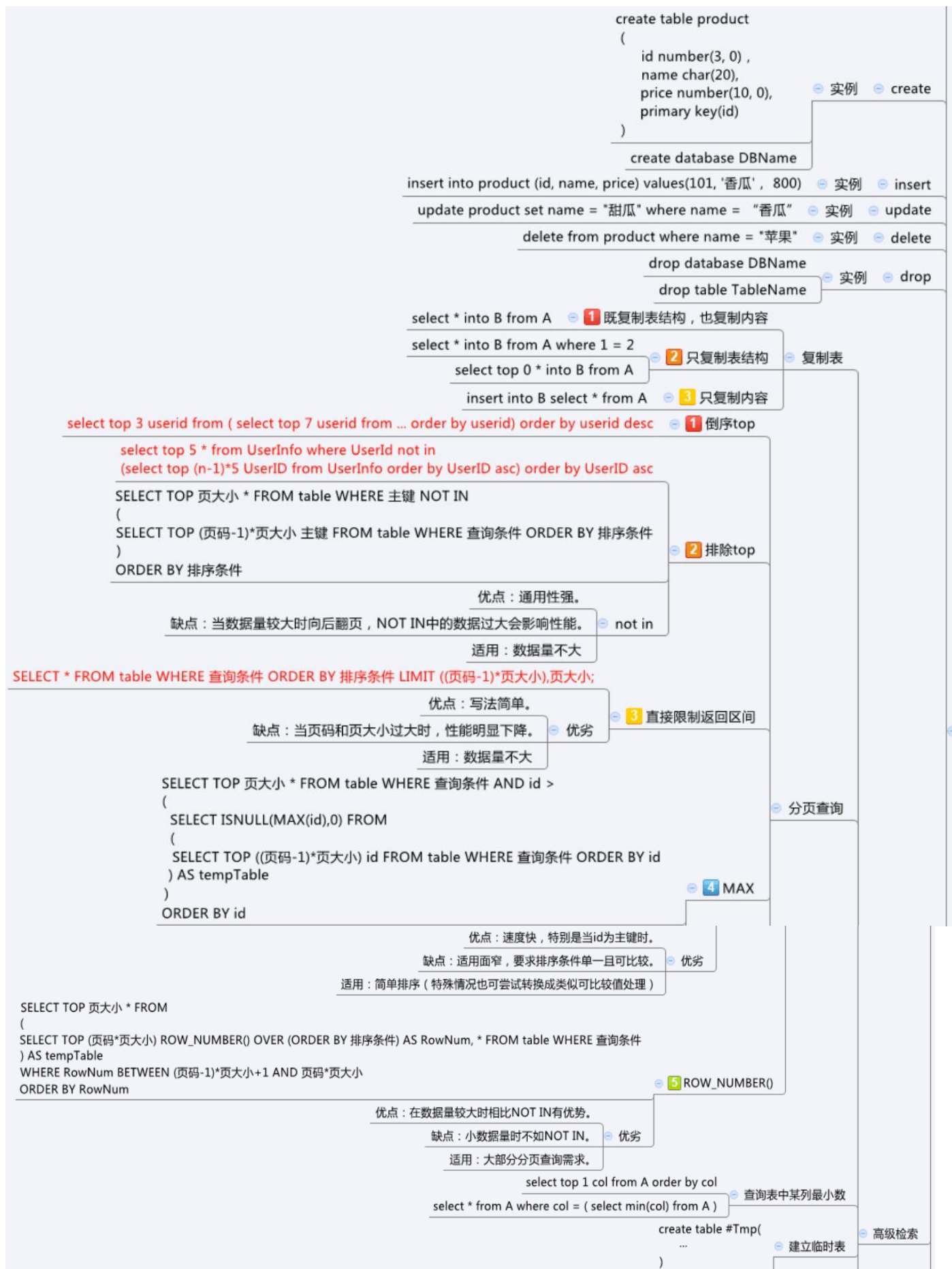
R÷S

A
a1



SQL 基本操作






```
select * from people where peopleId in
(
    select peopleId from people
    group by peopleId having count(peopleId) > 1
)
```

单个字段

```
select * from vitae a where (a.peopleId,a.seq) in
(
    select peopleId,seq from vitae
    group by peopleId,seq having count(*) > 1
)
```

多个字段

```
select distinct * from tableName
```

完全重复

```
delete from people where peopleId in
(
    select peopleId from people
    group by peopleId having count(peopleId) > 1
)
```

全删

```
delete from people where peopleId in
(
    select peopleId from people
    group by peopleId having count(peopleId) > 1
) and rowid not in
(
    select min(rowid) from people group by peopleId having count(peopleId) > 1
)
```

单个字段

留一条数据

```
delete from vitae a where (a.peopleId,a.seq) in
(
    select peopleId,seq from vitae
    group by peopleId,seq having count(*) > 1
)
```

全删

```
delete from vitae a where (a.peopleId,a.seq) in
(
    select peopleId,seq from vitae
    group by peopleId,seq having count(*) > 1
) and rowid not in
(
    select min(rowid) from vitae group by peopleId,seq having count(*) > 1
)
```

留一条数据

```
select distinct * into #Tmp from tableName
```

```
drop table tableName
```

```
select * into tableName from #Tmp
```

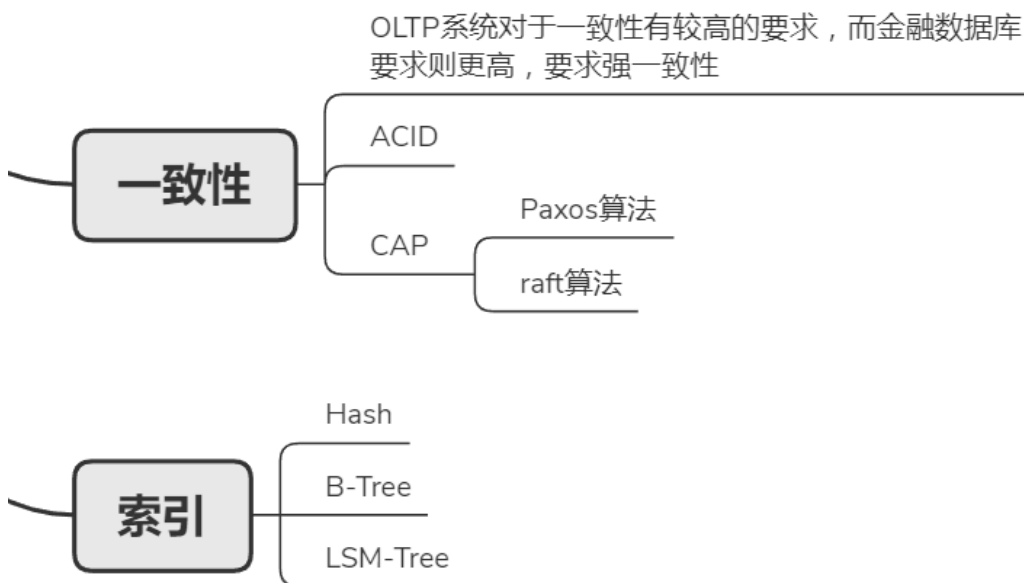
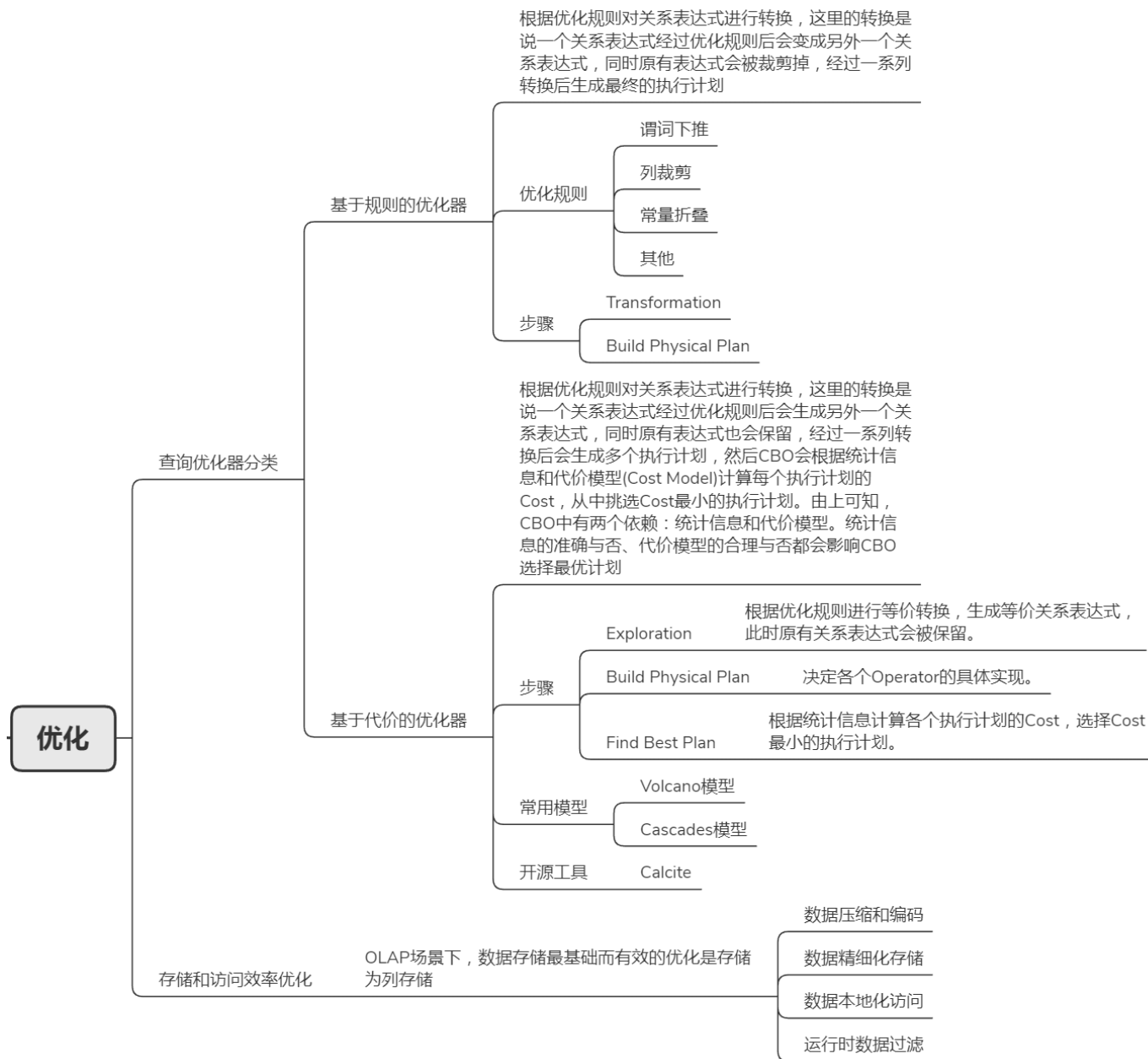
```
drop table #Tmp
```

重复记录保留1条

1 查找表中重复记录

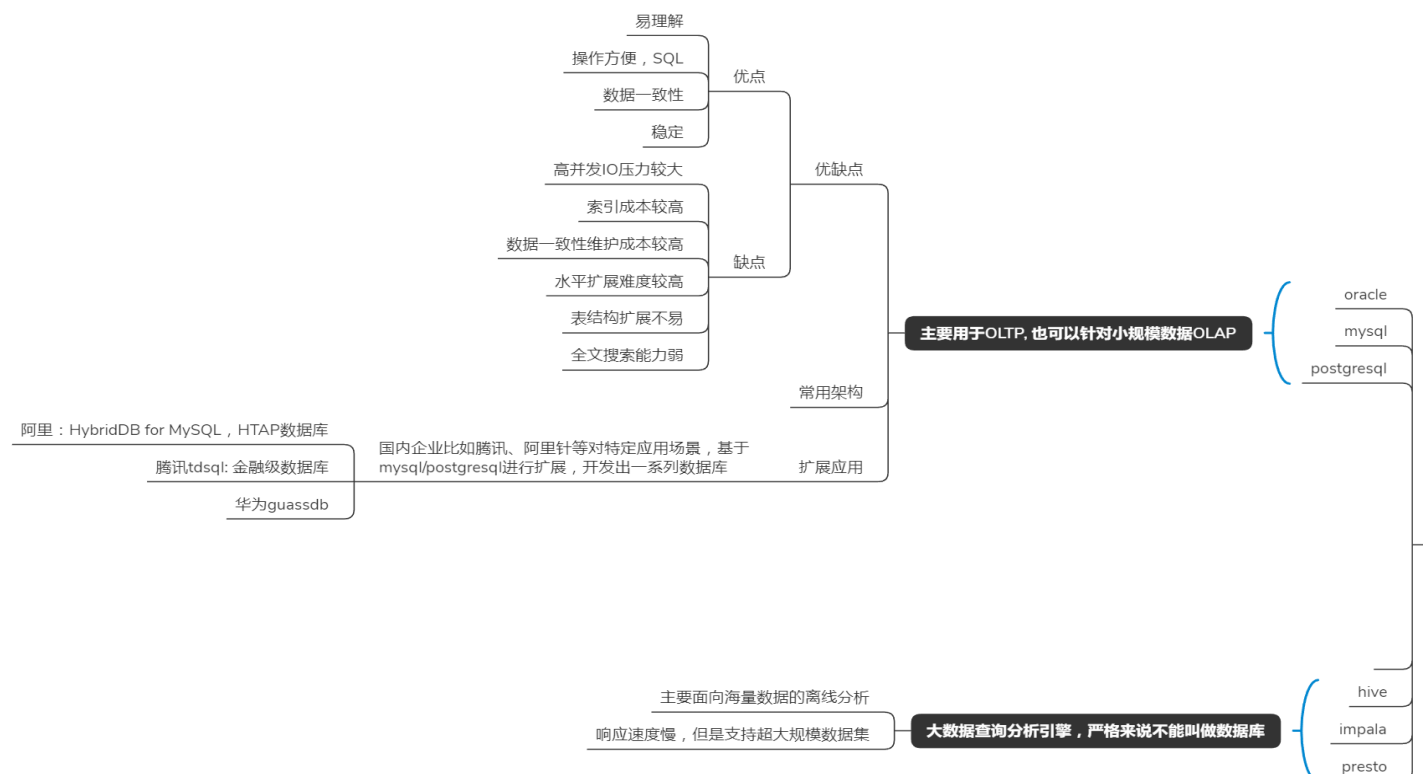
操作表中重复记录

2 删除表中重复记录





关系数据库（默认支持 SQL 查询）



将半结构化数据存储为文档的一种NoSql，文档型NoSql通常以JSON或者XML格式存储数据，因此文档型NoSql是没有Schema的，由于没有Schema的特性，我们可以随意地存储与读取数据，因此文档型NoSql的出现是解决关系型数据库表结构扩展不方便的问题的

