

mysql 递归查询 - 平凡希 - 博客园

1、创建表:



```
DROPTABLEIFEXISTS `t_areainfo`;CREATETABLE `t_areainfo` ( `id` int(11) NOT'0' AUTO_INCREMENT, `level` int(11)
DEFAULT'0', `name` varchar(255) DEFAULT'0', `parentId` int(11) DEFAULT'0', `status` int(11) DEFAULT'0', PRIMARYKEY
(`id`)) ENGINE=InnoDB AUTO_INCREMENT=65DEFAULT CHARSET=utf8;
```



2、初始数据:



```
INSERTINTO `t_areainfo` VALUES ('1', '0', '中国', '0', '0');INSERTINTO `t_areainfo` VALUES ('2', '0', '华北区', '1',
'0');INSERTINTO `t_areainfo` VALUES ('3', '0', '华南区', '1', '0');INSERTINTO `t_areainfo` VALUES ('4', '0', '北京', '2',
'0');INSERTINTO `t_areainfo` VALUES ('5', '0', '海淀区', '4', '0');INSERTINTO `t_areainfo` VALUES ('6', '0', '丰台区',
'4', '0');INSERTINTO `t_areainfo` VALUES ('7', '0', '朝阳区', '4', '0');INSERTINTO `t_areainfo` VALUES ('8', '0', '北京XX
区1', '4', '0');INSERTINTO `t_areainfo` VALUES ('9', '0', '北京XX区2', '4', '0');INSERTINTO `t_areainfo` VALUES ('10',
'0', '北京XX区3', '4', '0');INSERTINTO `t_areainfo` VALUES ('11', '0', '北京XX区4', '4', '0');INSERTINTO `t_areainfo`
VALUES ('12', '0', '北京XX区5', '4', '0');INSERTINTO `t_areainfo` VALUES ('13', '0', '北京XX区6', '4', '0');INSERTINTO
`t_areainfo` VALUES ('14', '0', '北京XX区7', '4', '0');INSERTINTO `t_areainfo` VALUES ('15', '0', '北京XX区8', '4',
'0');INSERTINTO `t_areainfo` VALUES ('16', '0', '北京XX区9', '4', '0');INSERTINTO `t_areainfo` VALUES ('17', '0', '北京XX
区10', '4', '0');INSERTINTO `t_areainfo` VALUES ('18', '0', '北京XX区11', '4', '0');INSERTINTO `t_areainfo` VALUES ('19',
'0', '北京XX区12', '4', '0');INSERTINTO `t_areainfo` VALUES ('20', '0', '北京XX区13', '4', '0');INSERTINTO `t_areainfo`
VALUES ('21', '0', '北京XX区14', '4', '0');INSERTINTO `t_areainfo` VALUES ('22', '0', '北京XX区15', '4', '0');INSERTINTO
`t_areainfo` VALUES ('23', '0', '北京XX区16', '4', '0');INSERTINTO `t_areainfo` VALUES ('24', '0', '北京XX区17', '4',
'0');INSERTINTO `t_areainfo` VALUES ('25', '0', '北京XX区18', '4', '0');INSERTINTO `t_areainfo` VALUES ('26', '0', '北京XX
区19', '4', '0');INSERTINTO `t_areainfo` VALUES ('27', '0', '北京XX区1', '4', '0');INSERTINTO `t_areainfo` VALUES ('28',
'0', '北京XX区2', '4', '0');INSERTINTO `t_areainfo` VALUES ('29', '0', '北京XX区3', '4', '0');INSERTINTO `t_areainfo`
VALUES ('30', '0', '北京XX区4', '4', '0');INSERTINTO `t_areainfo` VALUES ('31', '0', '北京XX区5', '4', '0');INSERTINTO
`t_areainfo` VALUES ('32', '0', '北京XX区6', '4', '0');INSERTINTO `t_areainfo` VALUES ('33', '0', '北京XX区7', '4',
'0');INSERTINTO `t_areainfo` VALUES ('34', '0', '北京XX区8', '4', '0');INSERTINTO `t_areainfo` VALUES ('35', '0', '北京XX
区9', '4', '0');INSERTINTO `t_areainfo` VALUES ('36', '0', '北京XX区10', '4', '0');INSERTINTO `t_areainfo` VALUES ('37',
'0', '北京XX区11', '4', '0');INSERTINTO `t_areainfo` VALUES ('38', '0', '北京XX区12', '4', '0');INSERTINTO `t_areainfo`
VALUES ('39', '0', '北京XX区13', '4', '0');INSERTINTO `t_areainfo` VALUES ('40', '0', '北京XX区14', '4', '0');INSERTINTO
`t_areainfo` VALUES ('41', '0', '北京XX区15', '4', '0');INSERTINTO `t_areainfo` VALUES ('42', '0', '北京XX区16', '4',
'0');INSERTINTO `t_areainfo` VALUES ('43', '0', '北京XX区17', '4', '0');INSERTINTO `t_areainfo` VALUES ('44', '0', '北京XX
区18', '4', '0');INSERTINTO `t_areainfo` VALUES ('45', '0', '北京XX区19', '4', '0');INSERTINTO `t_areainfo` VALUES ('46',
'0', 'xx省1', '1', '0');INSERTINTO `t_areainfo` VALUES ('47', '0', 'xx省2', '1', '0');INSERTINTO `t_areainfo` VALUES
('48', '0', 'xx省3', '1', '0');INSERTINTO `t_areainfo` VALUES ('49', '0', 'xx省4', '1', '0');INSERTINTO `t_areainfo`
VALUES ('50', '0', 'xx省5', '1', '0');INSERTINTO `t_areainfo` VALUES ('51', '0', 'xx省6', '1', '0');INSERTINTO
`t_areainfo` VALUES ('52', '0', 'xx省7', '1', '0');INSERTINTO `t_areainfo` VALUES ('53', '0', 'xx省8', '1',
'0');INSERTINTO `t_areainfo` VALUES ('54', '0', 'xx省9', '1', '0');INSERTINTO `t_areainfo` VALUES ('55', '0', 'xx省10',
'1', '0');INSERTINTO `t_areainfo` VALUES ('56', '0', 'xx省11', '1', '0');INSERTINTO `t_areainfo` VALUES ('57', '0', 'xx省
12', '1', '0');INSERTINTO `t_areainfo` VALUES ('58', '0', 'xx省13', '1', '0');INSERTINTO `t_areainfo` VALUES ('59', '0',
'xx省14', '1', '0');INSERTINTO `t_areainfo` VALUES ('60', '0', 'xx省15', '1', '0');INSERTINTO `t_areainfo` VALUES ('61',
'0', 'xx省16', '1', '0');INSERTINTO `t_areainfo` VALUES ('62', '0', 'xx省17', '1', '0');INSERTINTO `t_areainfo` VALUES
('63', '0', 'xx省18', '1', '0');INSERTINTO `t_areainfo` VALUES ('64', '0', 'xx省19', '1', '0');
```



3、向下递归:

利用find_in_set()函数和group_concat()函数实现递归查询:



```
DROPFUNCTIONIFEXISTS queryChildrenAreaInfo;CREATEFUNCTION queryChildrenAreaInfo(areaId
INT) RETURNSVARCHAR(4000) BEGINDECLARE sTemp VARCHAR(4000);DECLARE sTempChd VARCHAR(4000);SET sTemp='$';SET sTempChd
=CAST(areaId ASCHAR);WHILE sTempChd ISNOTNULL DOSET sTemp= CONCAT(sTemp, ',', sTempChd);SELECT GROUP_CONCAT(id) INTO
sTempChd FROM t_areainfo WHERE FIND_IN_SET(parentId, sTempChd)>0;ENDWHILE;RETURN sTemp;END;
```



4、调用方式:

```
SELECT queryChildrenAreaInfo(1);
```

信息	结果1	结果2	状态
queryChildrenAreaInfo(1)			
\$, 1, 2, 3, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 58			

查询id为"4"下面的所有节点

```
SELECT*FROM t_areainfo WHERE FIND_IN_SET(id, queryChildrenAreaInfo(4));
```

信息	结果1	结果2	状态	
id	level	name	parentId	status
4	0	北京	2	0
5	0	海淀区	4	0
6	0	丰台区	4	0
7	0	朝阳区	4	0
8	0	北京XX区1	4	0
9	0	北京XX区2	4	0
10	0	北京XX区3	4	0
11	0	北京XX区4	4	0
12	0	北京XX区5	4	0
13	0	北京XX区6	4	0
14	0	北京XX区7	4	0
15	0	北京XX区8	4	0
16	0	北京XX区9	4	0
17	0	北京XX区10	4	0
18	0	北京XX区11	4	0

5、向上递归:



```
DROPFUNCTIONIF EXISTS queryChildrenAreaInfo1;CREATEFUNCTION queryChildrenAreaInfo1(areaId
INT)RETURNSVARCHAR(4000)BEGINDECLARE sTemp VARCHAR(4000);DECLARE sTempChd VARCHAR(4000);SET sTemp='$';SET sTempChd
=CAST(areaId ASCHAR);SET sTemp = CONCAT(sTemp,',',sTempChd);SELECT parentId INTO sTempChd FROM t_areainfo WHERE id =
sTempChd;WHILE sTempChd <>0 DOSET sTemp = CONCAT(sTemp,',',sTempChd);SELECT parentId INTO sTempChd FROM t_areainfo WHERE
id = sTempChd;ENDWHILE;RETURN sTemp;END;
```



6、调用方式:

查询id为"7"的节点的所有上级节点:

```
SELECT*from t_areainfo where FIND_IN_SET(id,queryChildrenAreaInfo1(7));
```

信息		结果1		状态	
id	level	name	parentId	status	
1	0	中国	0	0	
2	0	华北区	1	0	
4	0	北京	2	0	
7	0	朝阳区	4	0	