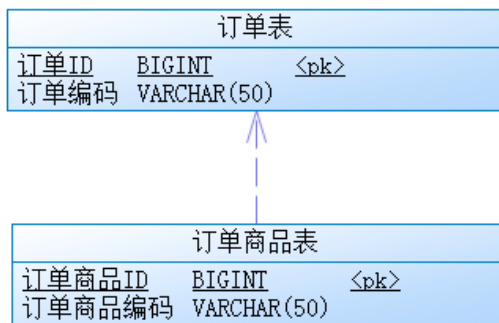# 电商系统(极简版1.0)PDM说明

电商系统**PDM**设计说明如下：

- **目标数据库 MYSQL_5.0**

- **UUID说明：**

  整体**PDM**没有外键，所有表的编码字段均为UUID，关联表均通过UUID关联。

- **模块划分说明：**

  1. 订单域： 处理订单模块，包含订单表和订单商品表，其中订单表有订单父编码为级数结构，可以支持拆单。订单商品表为叶子节点订单与商品的勾稽关系表，并记录对应订单的商品数量，总金额等。


```
alter table TB_ORDER
   drop primary key;

drop table if exists TB_ORDER;

/*==============================================================*/
/* Table: TB_ORDER                              */
/*==============================================================*/
create table TB_ORDER
(
   ORDER_ID             BIGINT not null,
   ORDER_CODE           VARCHAR(50) not null,
   ORDER_NAME           VARCHAR(100) not null,
   ORDER_TYPE           CHAR(2) not null comment '10-线上支付
        20-线下支付',
   ORDER_MESSAGE        VARCHAR(200) not null,
   ORDER_PARENT_CODE    VARCHAR(50) not null,
```

```sql
   ORDER_SPLIT_STATUS   CHAR(2) not null comment '10-未拆分
         20-已拆分',
   ORDER_STATUS        CHAR(2) not null comment '10-处理中
         20-完成
         30-异常
         40-取消',
   ORDER_NODE_FLAG      CHAR(2) not null comment '10-非叶子节点
         20-叶子节点',
   MEMBER_CODE         VARCHAR(50) not null,
   STATUS            CHAR(2) not null comment '10-有效
         20-无效',
   CREATE_TIME         timestamp not null,
   UPDATE_TIME          timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_ORDER
   add primary key (ORDER_ID);

alter table TB_ORDER_COMMODITY
   drop primary key;

drop table if exists TB_ORDER_COMMODITY;

/*==============================================================*/
/* Table: TB_ORDER_COMMODITY                          */
/*==============================================================*/
create table TB_ORDER_COMMODITY
(
   ORDER_COMMODITY_ID   BIGINT not null,
   ORDER_COMMODITY_CODE VARCHAR(50) not null,
   ORDER_CODE          VARCHAR(50) not null,
   COMMODITY_CODE      VARCHAR(50) not null,
   COMMODITY_NUMBER     INTEGER not null,
   COMMODITY_AMOUNT_SUM DECIMAL(17,6) not null,
   STATUS            CHAR(2) not null comment '10-有效
         20-无效',
   CREATE_TIME         timestamp not null,
   UPDATE_TIME          timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_ORDER_COMMODITY
   add primary key (ORDER_COMMODITY_ID);
```
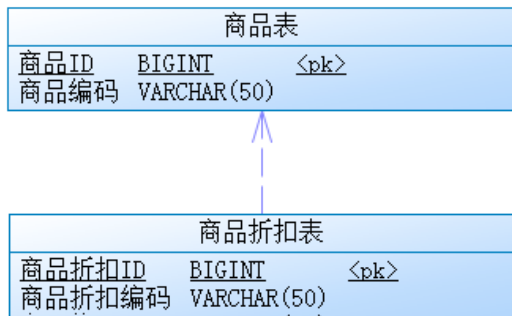
2. 商品域： 处理商品模块，包含商品表和商品折扣表。其中商品表记录商品信息，商品折扣表是商品表和计费域的费率组的勾稽表。

商品表

商品表		
商品ID	BIGINT	<pk>
商品编码	VARCHAR(50)	

商品折扣表		
商品折扣ID	BIGINT	<pk>
商品折扣编码	VARCHAR(50)	

```
alter table TB_COMMODITY
   drop primary key;

drop table if exists TB_COMMODITY;

/*==============================================================*/
/* Table: TB_COMMODITY                        */
/*==============================================================*/
create table TB_COMMODITY
(
   COMMODITY_ID         BIGINT not null,
   COMMODITY_CODE       VARCHAR(50) not null,
   COMMODITY_NAME       VARCHAR(100) not null,
   COMMODITY_AMOUNT     DECIMAL(17,6) not null,
   STATUS               CHAR(2) not null comment '10-有效
        20-无效',
   CREATE_TIME          timestamp not null,
   UPDATE_TIME          timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_COMMODITY
   add primary key (COMMODITY_ID);

alter table TB_COMMODITY_DISCOUNT
   drop primary key;

drop table if exists TB_COMMODITY_DISCOUNT;

/*==============================================================*/
```
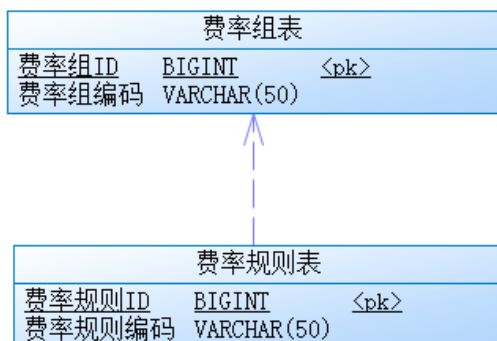
```
/* Table: TB_COMMODITY_DISCOUNT                          */
/*==================================================================*/
create table TB_COMMODITY_DISCOUNT
(
   COMMODITY_DISCOUNT_ID BIGINT not null,
   COMMODITY_DISCOUNT_CODE VARCHAR(50) not null,
   COMMODITY_CODE       VARCHAR(50) not null,
   GROUP_RATE_CODE      VARCHAR(50) not null,
   STATUS            CHAR(2) not null comment '10-有效
        20-无效',
   CREATE_TIME          timestamp not null,
   UPDATE_TIME           timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_COMMODITY_DISCOUNT
   add primary key (COMMODITY_DISCOUNT_ID);
```

3. 计费域： 计费域包含费率组和计费交易包。其中费率组包含费率组表和费率规则表，前者针对的是规则组，后者针对的是费率规则。计费交易包里面包含计费流水表，该表会记录每次计费的流水信息。

费率组表		
费率组ID	BIGINT	<pk>
费率组编码	VARCHAR(50)	

费率规则表		
费率规则ID	BIGINT	<pk>
费率规则编码	VARCHAR(50)	

```
alter table TB_GROUP_RATE
   drop primary key;

drop table if exists TB_GROUP_RATE;

/*==================================================================*/
/* Table: TB_GROUP_RATE                          */
/*==================================================================*/
create table TB_GROUP_RATE
(
   GROUP_RATE_ID        BIGINT not null,
```

```
   GROUP_RATE_CODE      VARCHAR(50) not null,
   GROUP_RATE_NAME      VARCHAR(100) not null,
   STATUS               CHAR(2) not null comment '10-有效
        20-无效',
   CREATE_TIME          timestamp not null,
   UPDATE_TIME          timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_GROUP_RATE
   add primary key (GROUP_RATE_ID);

alter table TB_RATE_RULE
   drop primary key;

drop table if exists TB_RATE_RULE;

/*==============================================================*/
/* Table: TB_RATE_RULE                             */
/*==============================================================*/
create table TB_RATE_RULE
(
   RATE_RULE_ID         BIGINT not null,
   RATE_RULE_CODE       VARCHAR(50) not null,
   RATE_RULE_NAME       VARCHAR(100) not null,
   RATE_RULE_TYPE       CHAR(2) not null comment '10-折扣金额
        20-折扣率',
   GROUP_RATE_CODE      VARCHAR(50) not null,
   STEP_LINE_AMOUNT     DECIMAL(17,6) not null,
   STEP_DOWN_AMOUNT     DECIMAL(17,6) not null,
   DISCOUNT_AMOUNT      DECIMAL(17,6),
   DISCOUNT_RATE        NUMERIC(8,4),
   STATUS               CHAR(2) not null comment '10-有效
        20-无效',
   CREATE_TIME          timestamp not null,
   UPDATE_TIME          timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_RATE_RULE
   add primary key (RATE_RULE_ID);
```

4. 会员域：针对会员模块，只包含会员表，其中可以支持TOB，TOC。

会员表

会员ID	BIGINT	<pk>
会员编码	VARCHAR(50)	

alter table TB_MEMBER
  drop primary key;

drop table if exists TB_MEMBER;

```
/*==============================================================*/
/* Table: TB_MEMBER                             */
/*==============================================================*/
create table TB_MEMBER
(
   MEMBER_ID          BIGINT not null,
   MEMBER_CODE        VARCHAR(50) not null,
   MEMBER_NAME        VARCHAR(100) not null,
   MEMBER_TYPE        CHAR(2) not null comment '10-私人
      20-企业',
   MEMBER_IDENTITY_CODE VARCHAR(50),
   MEMBER_ORGANIZATION_NUMBER VARCHAR(50),
   STATUS             CHAR(2) not null comment '10-有效
      20-无效',
   CREATE_TIME        timestamp not null,
   UPDATE_TIME        timestamp not null,
   DATA_VERSION       int(11) not null
);
```

alter table TB_MEMBER
  add primary key (MEMBER_ID);

5. 通用域：针对全平台的通用功能模块，极简版中只包含快照表。

快照表

快照ID	BIGINT	<pk>
快照编码	VARCHAR(50)	

alter table TB_SNAPSHOT
  drop primary key;

drop table if exists TB_SNAPSHOT;

```
/*==============================================================*/
```

```
/* Table: TB_SNAPSHOT                          */
/*==============================================================*/
create table TB_SNAPSHOT
(
   SNAPSHOT_ID          BIGINT not null,
   SNAPSHOT_CODE        VARCHAR(50) not null,
   SNAPSHOT_NAME        VARCHAR(100) not null,
   SNAPSHOT_TYPE        CHAR(4) not null comment '1001-计费类型',
   SNAPSHOT_TYPE_CONTENT BLOB(2M) not null,
   STATUS               CHAR(2) not null comment '10-有效
        20-无效',
   CREATE_TIME          timestamp not null,
   UPDATE_TIME          timestamp not null,
   DATA_VERSION         int(11) not null
);

alter table TB_SNAPSHOT
   add primary key (SNAPSHOT_ID);
```

- **索引说明：针对UUID加入唯一索引**

```
ALTER TABLE TB_ORDER ADD UNIQUE (ORDER_CODE)
ALTER TABLE TB_ORDER_COMMODITY ADD UNIQUE (ORDER_COMMODITY_CODE)

ALTER TABLE TB_COMMODITY ADD UNIQUE (COMMODITY_CODE)
ALTER TABLE TB_COMMODITY_DISCOUNT ADD UNIQUE     (COMMODITY_DISCOUNT_CODE)

ALTER TABLE TB_GROUP_RATE ADD UNIQUE (GROUP_RATE_CODE)
ALTER TABLE TB_RATE_RULE ADD UNIQUE (RATE_RULE_CODE)
ALTER TABLE TB_BILLING_FLOW ADD UNIQUE (BILLING_FLOW_CODE)

ALTER TABLE TB_MEMBER ADD UNIQUE (MEMBER_CODE)

ALTER TABLE TB_SNAPSHOT ADD UNIQUE (SNAPSHOT_CODE)
```