# 项目流程草稿

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## 数据库表设计

## user表

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| id | user\_name | user\_password | job\_id\_fk | department\_id\_fk | user\_info |
|  | 吴磊 | wl | 1 | 1 |  |
|  | 赵启忠 | zqz | 2 | 2 |  |
|  | 吕宗同 | lzt | 2 | 2 |  |
|  | 刘可哲 | lkz | 3 | 2 |  |
|  | 岳强 | lq | 3 | 2 |  |
|  | 施明青 | smq | 4 | 3 |  |
|  | 张汶平 | zwp | 5 | 3 |  |
|  | 杨志民 | lzm | 4 | 4 |  |
|  | 李政渊 | lzy | 5 | 4 |  |
|  | 莫军宗 | mjz | 6 | 1 |  |
|  | 沈洋 | sy | 7 | 1 |  |
|  | 徐凌娴 | xlx | 2 | 5 |  |
|  | 王颖 | wy | 2 | 5 |  |
|  | 毛刚 | mg | 3 | 5 |  |
|  | 张汶平 | zwp | 3 | 5 |  |

## job表

|  |  |  |  |
| --- | --- | --- | --- |
| id | job\_name | job\_salary | job\_info |
| 1 | 总经理 | 8000 |  |
| 2 | 快递员 | 800 |  |
| 3 | 营业厅业务员 | 1500 |  |
| 4 | 中转中心业务员 | 1800 |  |
| 5 | 仓库管理人员 | 1200 |  |
| 6 | 财务人员 | 2000 |  |
| 7 | 系统管理员 | 5000 |  |

## department表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id | department\_name | department\_location | department\_type(int) |  |
| 1 | 北京公司总部 | 北京市西城区西直门北大街100号 | 财务管理部门3 |  |
| 2 | 南京仙林营业厅 | 南京市栖霞区仙林街道仙林大道168号 | 营业厅1 |  |
| 3 | 南京中转中心 | 南京市雨花台区玉兰路8号 | 中转中心2 |  |
| 4 | 北京中转中心 | 北京市天安门大道259号 | 中转中心2 |  |
| 5 | 北京西直门营业厅 | 北京市西城区西直门北大街55号 | 营业厅1 |  |

## 寄件人 sender表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id | sender\_name | sender\_address | sender\_phone | sender\_info |
| 1 | 吴艺 | 北京市西城区西直门北大街24号 | 13823456789 |  |
| 2 | 周丹 | 江苏省南京白下区洪武路88号万达购物广场 | 13612345678 |  |

## 收件人 receiver表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id | receiver\_name | receiver\_address | receiver\_phone | receiver\_info |
| 1 | 朱佳兰 | 南京市鼓楼区大桥南路7号 | 18362920000 |  |
| 2 | 白仁忠 | 北京汉中门大街151号 | 13845671234 |  |

## 货物 goods表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| id | goods\_name | | goods\_num | | goods\_weight | | goods\_length |
|  | iPhone6 | | 1 | | 500 | | 14 |
| goods\_width | | goods\_height | | goods\_info | |
| 6 | | 0.3 | |  | |

注：长宽高，单位为cm (demical 6-2)

重量weight为double 单位g

## 寄件单post

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| id | sender\_id\_fk | | collection\_id\_fk | | receiver\_id\_fk | | goods\_id\_fk | post\_type | packingexpense |
| 1 | 1 | |  | | 1 | |  | 经济快递 | 16 int |
|  | | post\_estimateddatetime | | barcode | |
|  | |  | | String | |
|  | |  | |  | |

BItransport\_id\_fk IItransport\_id\_fk IBtransport\_id\_fk

注：所有订单都会通过这3步运输过程完成运输B-I-B

start\_stock\_id\_fk end\_stock\_id\_fk delivery\_id\_fk recipient \_id\_fk

1

注：post\_type分为 type都定义为静态字符串

1经济快递  Economy Express，

2标准快递，Standard Express

3特快专递 Special Express

为简化起见，不建立新的表

## 收件单 recipient

|  |  |  |  |
| --- | --- | --- | --- |
| id | post\_id\_fk | recipient\_name | recipient\_datetime |
| 1 |  | 孙静卫 |  |

注：收件人 receiver表是寄件人想要寄到的收件人

收件单 recipient 表 是实际签收的人

## BI运输表 BItransport

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| id | post\_id\_fk | | start\_department\_id\_fk | | end\_department\_id\_fk | | BItransport\_start\_datetime | | BItransport\_end\_datetime | |
| 1 |  | | 2 | | 3 | |  | |  | |
|  | | vehicle\_id\_fk | | driver\_id\_fk | | BItransport\_fare | | BItransport\_info | |
|  | |  | |  | |  | |  | |

注：B营业厅，I中转中心

使用公司的车辆（公司的车辆只跑中转中心和下级营业厅之间的运输）

## 车辆表 vehicle

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| id | department\_id\_fk | vehicle\_num | license\_plate\_number | usetime | vehicle\_info |  |
|  | 2 | 025001001 | 苏A12345 | 开始使用的时间 |  |  |
|  | 5 | 010001001 | 京A88888 |  |  |  |

车辆代号（城市编号（电话号码区号南京025）+营业厅编号（000三位数字）+000三位数字）

## 司机表driver

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| id | department\_id\_fk | driver\_name | driver\_num | driver\_gender | driver\_birthday | driver\_idcard | driver\_phone |
|  | 2 | 唐广清 | 025001030 | 男 |  | 371522197706269231 | 12545678998 |
|  | 5 | 戚明哲 | 010001125 | 男 |  | 411702198709277192 | 13512345678 |

司机编号（城市编号（电话号码区号南京025）+营业厅编号（000三位数字）+000三位数字

## II运输表 IItransport

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| id | post\_id\_fk | | start\_department\_id\_fk | | end\_department\_id\_fk | | IItransport\_start\_datetime | | IItransport\_end\_datetime |
| 1 |  | | 3 | |  | |  | |  |
|  | | IItransport\_type | | IItransport\_fare | | IItransport\_info | |
|  | | 铁路 | |  | |  | |

注：IItransport\_type分为

1飞机 plane、

2铁路 railway、

3公路 road

三种运输方式

## IB运输表 IBtransport

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| id | post\_id\_fk | | start\_department\_id\_fk | | end\_department\_id\_fk | | IBtransport\_start\_datetime | | IBtransport\_end\_datetime | |
| 1 |  | | 4 | | 5 | |  | |  | |
|  | | vehicle\_id\_fk | | driver\_id\_fk | | IBtransport\_fare | | IBtransport\_info | |
|  | |  | |  | |  | |  | |

注：B营业厅，I中转中心

使用公司的车辆（公司的车辆只跑中转中心和下级营业厅之间的运输）

## 库存表stock

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| id | post\_id\_fk | | department\_id\_fk | | area\_num | row\_num | | shelf\_num | | position\_num |
|  |  | |  | | smallint2 | 3 | | 1 | | 4 |
|  | | stockin\_datetime | | stockout\_datetime | | | stock\_isEmpty | |
|  | |  | |  | | | tinyint | |
|  | | IItransport\_id\_fk | | IBtransport\_id\_fk | | |  | |
|  | |  | |  | | |  | |

注：department\_id\_fk所属的中转中心id

## delivery 派件表

|  |  |  |  |
| --- | --- | --- | --- |
| id | post\_id\_fk | delivery\_time | courier\_user\_id\_fk |
|  |  |  |  |

注：派件人courier\_user\_id\_fk

总时间线

[post] post\_datetime

~ [BItransport] BItransport\_datetime

~ [stock] stockin\_datetime

~[stock]stockout\_datetime

~[IItransport]IItransport\_datetime

~[stock] stockin\_datetime

~[stock]stockout\_datetime (每个中转中心都有仓库，故有两次入库出库)

~[IBtransport]IBtransport\_datetime

~[delivery] arrive\_time

~ [recipient] recipient \_datetime

管理类表

## 收款单 collection

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| id | collection\_datetime | collection\_amount | courier\_user\_id\_fk | department\_id\_fk |
|  |  | 25.6 | 2 |  |

注：courier\_user\_id\_fk收款人，快递员

## 付款单 payment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| id | payment\_datetime | payment\_amount | finance\_user\_id\_fk | payment\_type | payment\_info |
|  |  | double |  |  |  |

注：付款人finance\_user\_id\_fk

注：payment\_type分为

1 租金（按年收） rent，

2运费（按次计算）freight,

3人员工资（按月统计）salary

4，奖励（一次性）bonus

## 账户表 account 该公司的银行账户

|  |  |  |  |
| --- | --- | --- | --- |
| id | account\_name | account\_amount | account\_startdate |
|  |  |  |  |

总经理单据审批

寄件单post

营业厅装车单 BItransport

营业厅到达单 IBtransport

收款单 collection

付款单 payment

派件单 delivery

入库单stock

中转中心中转单 IItransport