数据库设计&Powerdesiner使用

【实验环境】

操作系统：Windows

Tools：MySQL Workbench 6.1，PowerDesigner 16.5

Database：MySQL 5.6

【实验目的】

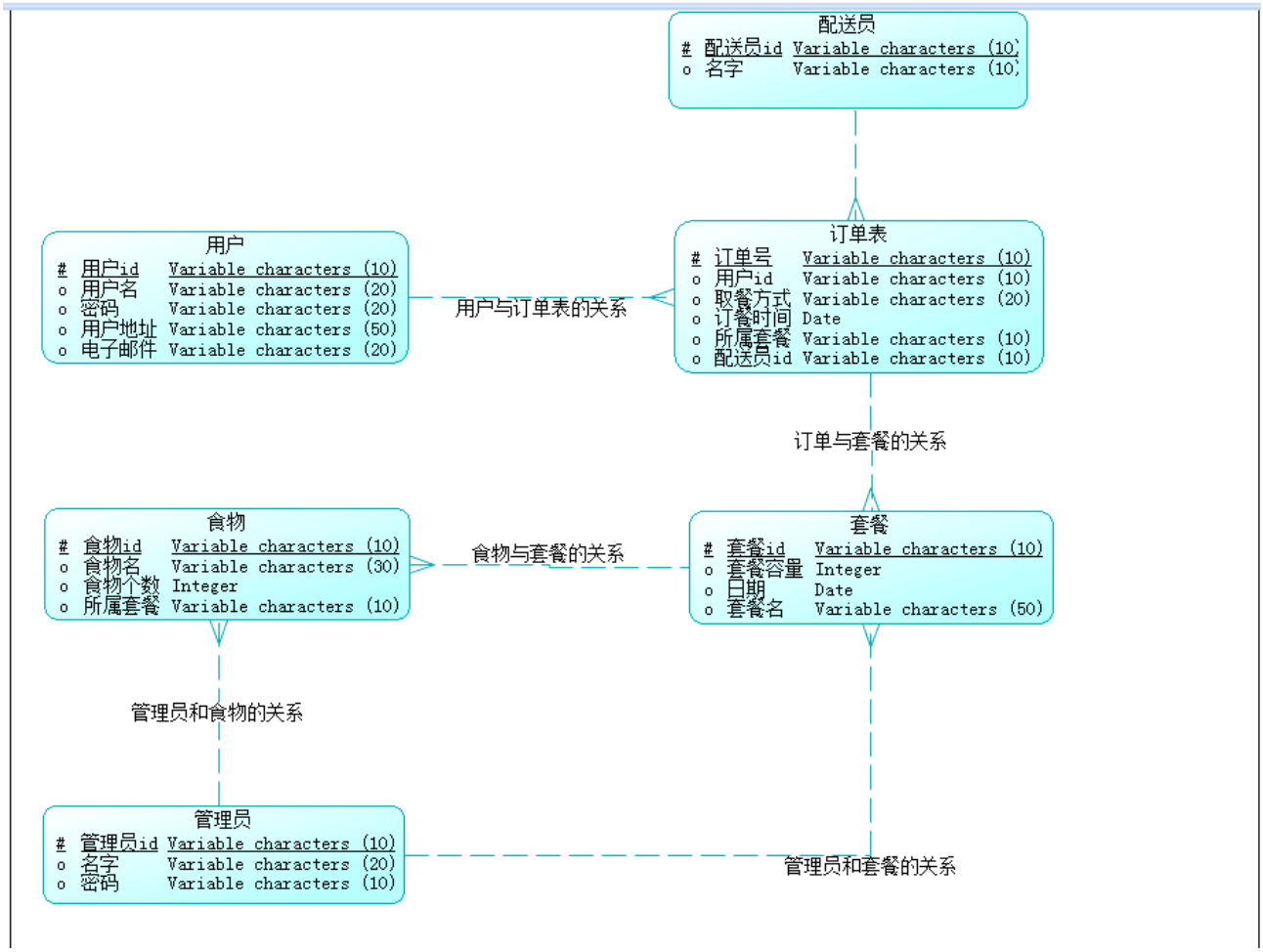
1. PowerDesiner12安装
2. 熟悉PowerDesiner12操作环境
3. 使用PowerDesiner12建立概念模型
4. 使用PowerDesiner12建立物理模型
5. 配置MYSQL数据源
6. 由PowerDesiner12物理模型自动生成MYSQL表

【实验内容】

1. 下载并安装Powerdesigner 16.5
2. 根据需求文档中功能需求部分的2.1和2.5，在PowerDesigner中建立相应的表概念数据模型，并将其转化为物理数据模型。
3. 根据1中完成的物理数据模型，利用PowerDesigner自动生成对应的数据库表

【实验结果】

1. 概念模型



2. 导出的sql语句

```
/*==============================================================*/
/* DBMS name:      MySQL 5.0                                    */
/* Created on:     2018/8/27 20:15:04                           */
/*==============================================================*/


drop table if exists Patron;

drop table if exists deliever;

drop table if exists food;

drop table if exists menu;

drop table if exists message;

drop table if exists orderlist;

/*==============================================================*/
/* Table: Patron                                                */
/*==============================================================*/
create table Patron
(
   id                   varchar(10) not null,
   name                 varchar(20),
   password             varchar(20),
   location             varchar(50),
   email                varchar(20),
   primary key (id)
);

alter table Patron comment 'ÓÃ»§±í';

/*==============================================================*/
/* Table: deliever                                              */
/*==============================================================*/
create table deliever
(
   deliever_id          varchar(10) not null,
   deliever_name        varchar(10),
   primary key (deliever_id)
);

/*==============================================================*/
/* Table: food                                                  */
/*==============================================================*/
```

```
create table food
(
	food_id		varchar(10) not null,
	message_id	varchar(10),
	menu_id		varchar(10),
	mes_message_id	varchar(10),
	food_name	varchar(30),
	food_cnt	int,
	menu___id	varchar(10),
	primary key (food_id)
);

alter table food comment 'Ê³²Ä±í';

/*==============================================================*/
/* Table: menu                                                  */
/*==============================================================*/
create table menu
(
	menu_id		varchar(10) not null,
	message_id	varchar(10),
	mes_message_id	varchar(10),
	order_id	varchar(10),
	menu_cnt	int,
	menu_date	date,
	menu_name	varchar(50),
	primary key (menu_id)
);

alter table menu comment 'ÓÃ»§¿ÉÒÔ¶¨µÄì×²Í';

/*==============================================================*/
/* Table: message                                               */
/*==============================================================*/
create table message
(
	message_id	varchar(10) not null,
	message_name	varchar(20),
	password	varchar(10),
	primary key (message_id)
);

alter table message comment 'ÐÞ¸ÄmenuµÄ¹ÜÀíÔ±';

/*==============================================================*/
/* Table: orderlist                                             */
/*==============================================================*/
```

```
create table orderlist
(
        order_id            varchar(10) not null,
        id                  varchar(10),
        del_deliever_id     varchar(10),
        patron_id           varchar(10),
        type                varchar(20),
        order_time          date,
        menu___id           varchar(10),
        deliever_id         varchar(10),
        primary key (order_id)
);

alter table food add constraint FK_food_menu_r foreign key (menu_id)
        references menu (menu_id) on delete restrict on update restrict;

alter table food add constraint FK_messager_food_r foreign key (message_id)
        references message (message_id) on delete restrict on update restrict;

alter table food add constraint FK_messager_food_re foreign key (mes_message_id)
        references message (message_id) on delete restrict on update restrict;

alter table menu add constraint FK_messager_menu_r foreign key (mes_message_id)
        references message (message_id) on delete restrict on update restrict;

alter table menu add constraint FK_messager_menu_re foreign key (message_id)
        references message (message_id) on delete restrict on update restrict;

alter table menu add constraint FK_order_menu_r foreign key (order_id)
        references orderlist (order_id) on delete restrict on update restrict;

alter table orderlist add constraint FK_deliever_order_r foreign key (del_deliever_id)
        references deliever (deliever_id) on delete restrict on update restrict;

alter table orderlist add constraint FK_patron_order_r foreign key (id)
        references Patron (id) on delete restrict on update restrict;
```