

GDPLS Movie

Grand Duke of Programming Language Script

2017 June

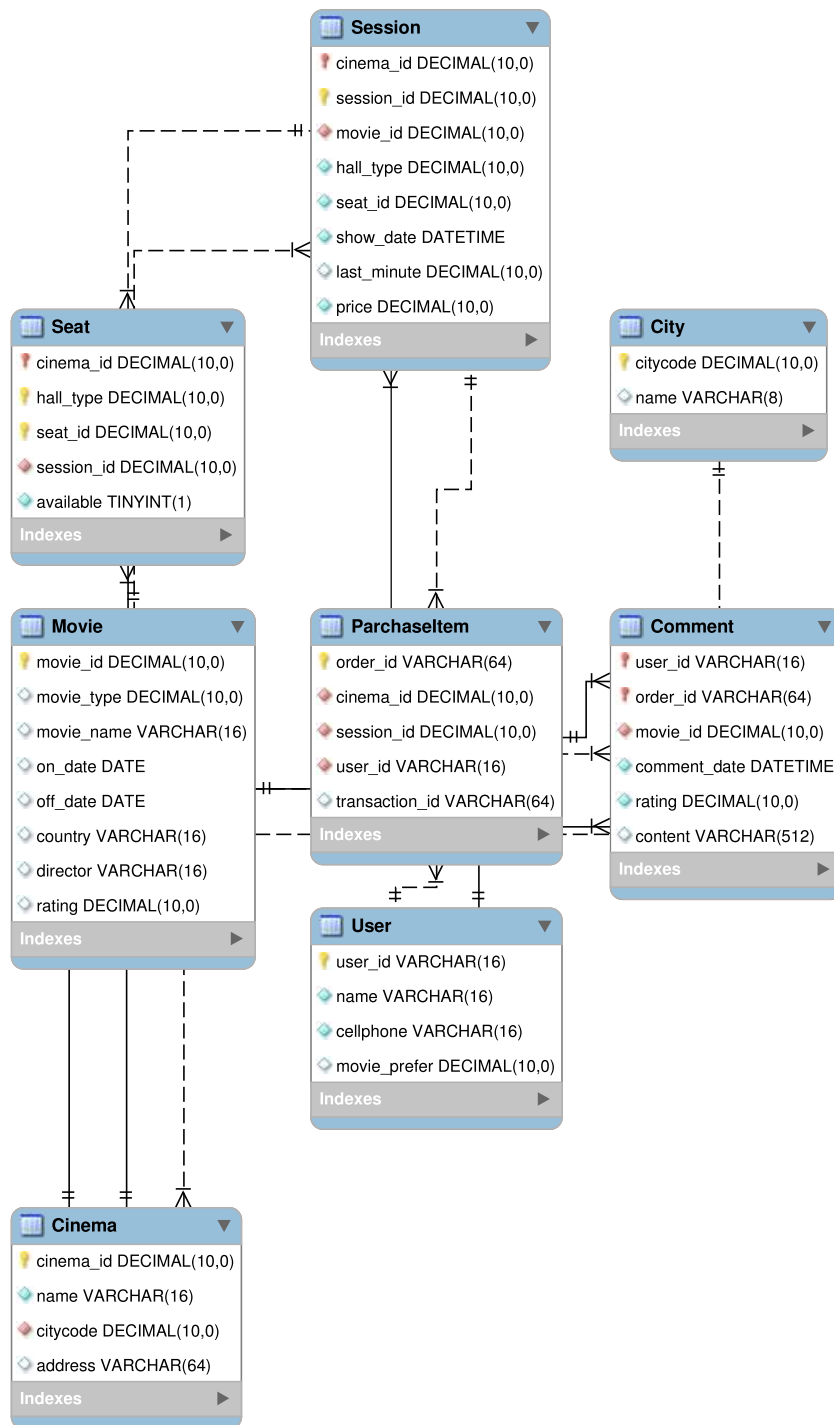
Database Model

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版本日志

版本号	修改人	修改时间	说明
1.0.0	方铭	2016.5.6	设计初稿

1 数据模型



2 设计代码

```

1 drop database movie_db;
2 create database movie_db;
3 use movie_db;
4
5 — 用户使用微信号作为主键，不需要记录登录口令，用户头像图片
  
```

```

6  — movie_prefer为用户喜欢的电影类型，一个数据位为一种类型的电影，
7  — 1表示感兴趣，0表示不感兴趣
8  create table User (
9      — use weixin account for user_id
10     user_id varchar(16) not null primary key,
11     name nvarchar(16) not null,
12     cellphone varchar(16) not null,
13     movie_prefer numeric
14 );
15
16 — 购买记录，transaction_id为交易流水号，接入微信支付
17 — 若未发起支付，transaction_id为null
18 create table PurchaseItem (
19     order_id varchar(64) not null primary key,
20     cinema_id numeric not null,
21     session_id numeric not null,
22     user_id varchar(16) not null,
23     transaction_id varchar(64)
24     — — when user comments, insert comment_id
25     — comment_id numeric
26 );
27
28 — 评论信息使用user_id和order_id作为主键
29 — movie_id是冗余项，可以在order_id中查到，
30 — 考虑打开某电影介绍界面可能需要查找评价信息，
31 — 这里加上是为了便于查表，可以考虑删除
32 create table Comment (
33     — comment_id numeric not null primary key,
34     user_id varchar(16) not null,
35     order_id varchar(64) not null,
36     movie_id numeric not null,
37     comment_date datetime not null,
38     rating numeric not null,
39     content nvarchar(512),
40     primary key (user_id, order_id)
41 );
42
43 create table Session (
44     cinema_id numeric not null,
45     session_id numeric not null,
46     movie_id numeric not null,
47     hall_type numeric not null,
48     seat_id numeric not null,
49     show_date datetime not null,
50     last_minute numeric,
51     price numeric not null,
52     primary key (cinema_id, session_id)
53 );
54
55 create table Cinema (
56     cinema_id numeric not null primary key,
57     name nvarchar(16) not null,
58     citycode numeric not null,
59     address nvarchar(64)
60 );
61
62 create table City (
63     citycode numeric not null primary key,
64     name nvarchar(8)
65 );
66
67 create table Seat (
68     cinema_id numeric not null,

```

```

69     hall_type numeric not null,
70     seat_id numeric not null,
71     session_id numeric not null,
72     available boolean not null,
73     primary key (cinema_id, hall_type, seat_id)
74 );
75
76 — 之前在Comment的表中加入了movie_id, 这里本可以不用存放rating
77 — 存rating只是为了缓存评分
78 create table Movie (
79     movie_id numeric not null primary key,
80     — one type per bit
81     movie_type numeric,
82     movie_name nvarchar(16),
83     on_date date,
84     off_date date,
85     country varchar(16),
86     director nvarchar(16),
87     rating numeric
88 );
89
90 alter table PurchaseItem
91     add constraint FK_PI_REF_USER foreign key (user_id)
92     references User(user_id);
93 alter table PurchaseItem
94     add constraint FK_PI_REF_SESS foreign key (cinema_id, session_id)
95     references Session(cinema_id, session_id);
96 — alter table PurchaseItem
97 — add constraint FK_PI_REF_CMNT foreign key (comment_id)
98 — references Comment(comment_id);
99
100 alter table Comment
101     add constraint FK_CMNT_REF_USER foreign key (user_id)
102     references User(user_id);
103 alter table Comment
104     add constraint FK_CMNT_REF_PI foreign key (order_id)
105     references PurchaseItem(order_id);
106 alter table Comment
107     add constraint FK_CMNT_REF_MOVIE foreign key (movie_id)
108     references Movie(movie_id);
109
110 alter table Session
111     add constraint FK_SESS_REF_MOVIE foreign key (movie_id)
112     references Movie(movie_id);
113 alter table Session
114     add constraint FK_SESS_REF_CINE foreign key (cinema_id)
115     references Cinema(cinema_id);
116
117 alter table Cinema
118     add constraint FK_CINE_REF_CITY foreign key (citycode)
119     references City(citycode);
120
121 alter table Seat
122     add constraint FK_SEAT_REF_CINE foreign key (cinema_id)
123     references Cinema(cinema_id);
124 alter table Seat
125     add constraint FK_SEAT_REF_SESS foreign key (cinema_id, session_id)
126     references Session(cinema_id, session_id);

```