



JAVAE PROJECT

博影(BOYING)票务娱乐平台

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目录

CONTENTS

1

Instruction

2

Function Realization

3

Architecture

4

Database Design

5

Collaboration

6

Development

7

Problems & Solution

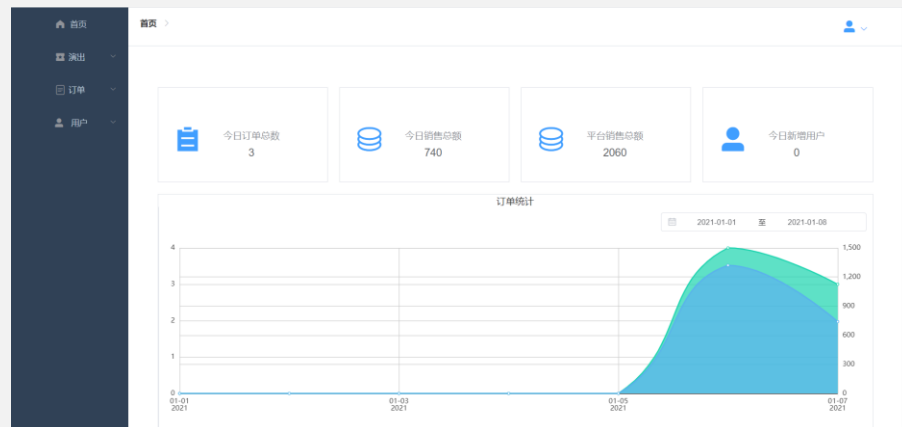
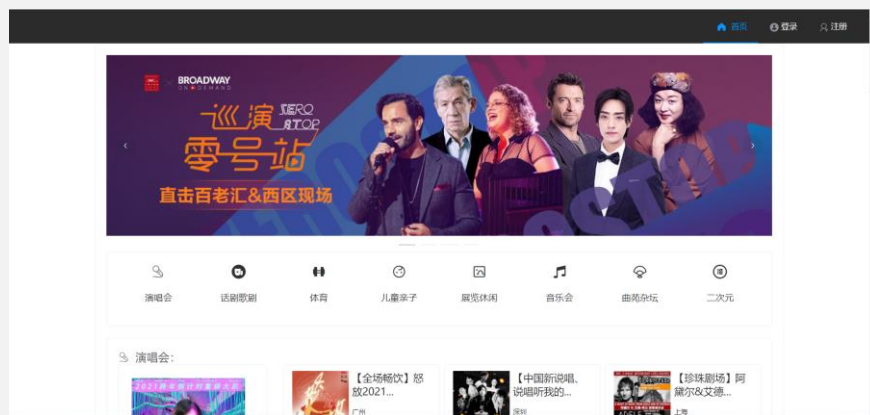


PART 01

Introduction

Introduction

Our project is an entertainment ticket marketing platform, with business covering concerts, dramas, musicals, sports events and other fields. The purpose is to allow users to safely, quickly and easily purchase tickets for various performances and improve user experience. The system is desperate to two parts, the first is user interface, the other one is administrator interface.





02

PART 02

Function Realization

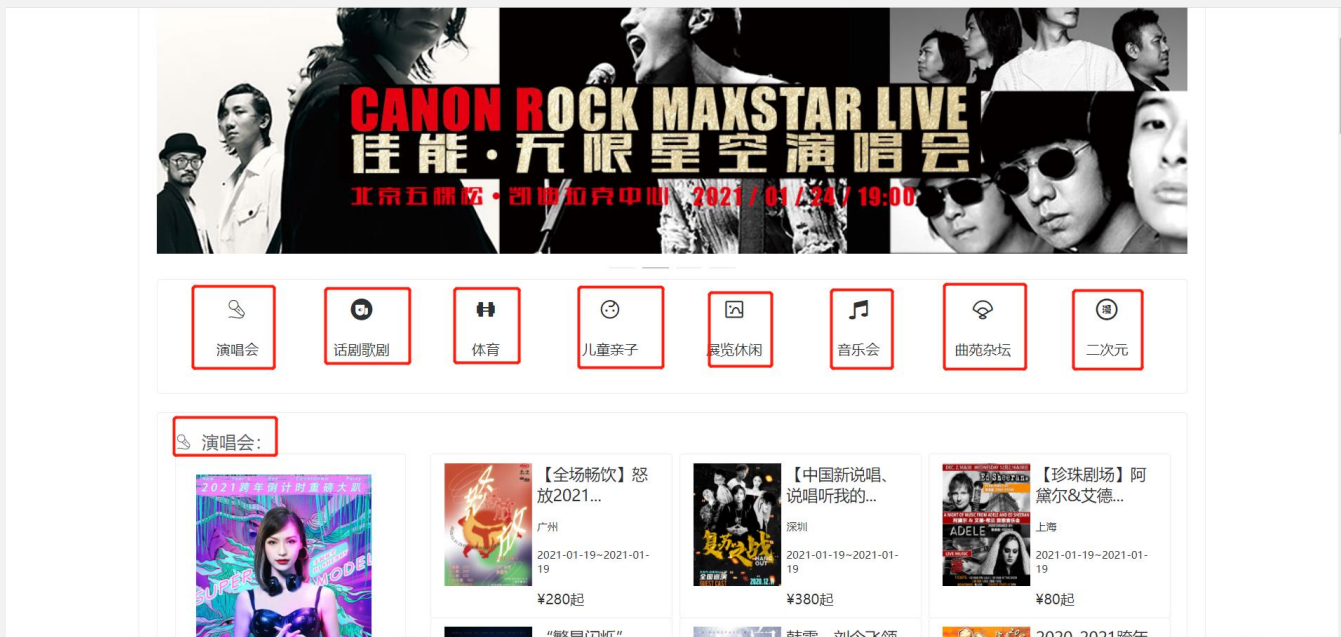
Overview of function realization

User interface function

Function	Remarks
Register	Use phone number to register an unique account
Login	User can login by three ways
Update personnel information	User can change some information except some that can't be modified
Search for shows	User can search for shows by many kinds of conditions
Buy tickets	User can choose different tickets to buy,for different tickets,the prices are different
Manage orders	User can view all orders he has ordered and do some operations to them.
Refund tickets	User can refund tickets

Search for shows

User can click any category to jump to the search page. Click different category will get a different initial search show page for user



Search for shows

Here we can enter search name to search show in the search bar. In the next line, we can choose different cities to filter the search result. Also we can choose different categories, time and different sort condition to change the search result

[首页](#)

搜索:

城市: 全国 上海 北京 广州 深圳

分类: 全部 演唱会 话剧歌剧 体育 儿童亲子 展览休闲 音乐会 曲艺杂坛 二次元

时间:

相关度排序 推荐排序 最近开场 价格升序 价格降序



【摩登站】2021跨年倒计时重磅大趴 “超模DJ荧光派对” -魅惑女王控场，地表最闪亮！

中国大戏院 北京

2021-01-19~2021-01-19

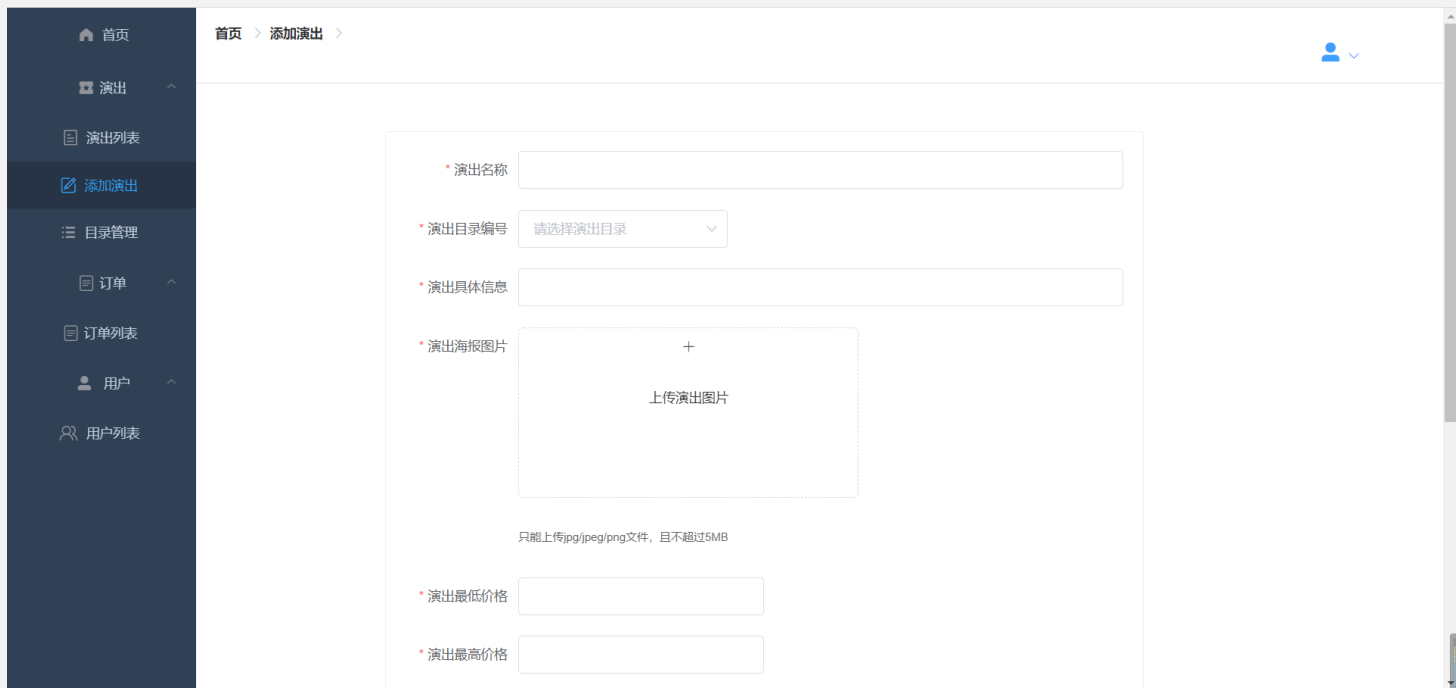
Overview of function realization

Administrator interface function

Function	Remarks
Login	Admin can login by only one ways
View statistics information of platform	Admin can view some information of platform like order and user information statistics
Manage shows	Admin can view platform shows and delete shows
Add new shows	Admin can enter new show's information to add new shows to platform
Manage show category	Admin can view ,edit , delete and add category
Manage orders	Admin can manage all users' orders
Manage users	Admin can manage all users on the platform

Add shows

Here we need to finish this form to add a new show, conditions with star mark must be given. Here you should enter show name, poster, category, price and other information, then you can add this new show to database and reflect to user interface




The screenshot displays a web application interface for adding a new show. On the left is a dark sidebar with navigation links: 首页 (Home), 演出 (Performance), 演出列表 (Performance List), 添加演出 (Add Performance), 目录管理 (Catalog Management), 订单 (Order), 订单列表 (Order List), 用户 (User), and 用户列表 (User List). The main content area has a breadcrumb trail: 首页 > 添加演出 >. The form for adding a show contains the following fields:

- * 演出名称 (Performance Name): A text input field.
- * 演出目录编号 (Performance Catalog Number): A dropdown menu with the placeholder text "请选择演出目录" (Please select performance catalog).
- * 演出具体信息 (Performance Specific Information): A text input field.
- * 演出海报图片 (Performance Poster Image): A dashed box containing a plus sign and the text "上传演出图片" (Upload performance image). Below this box is a note: "只能上传jpg/jpeg/png文件, 且不超过5MB" (Only upload jpg/jpeg/png files, and not more than 5MB).
- * 演出最低价格 (Performance Minimum Price): A text input field.
- * 演出最高价格 (Performance Maximum Price): A text input field.




03

PART 03

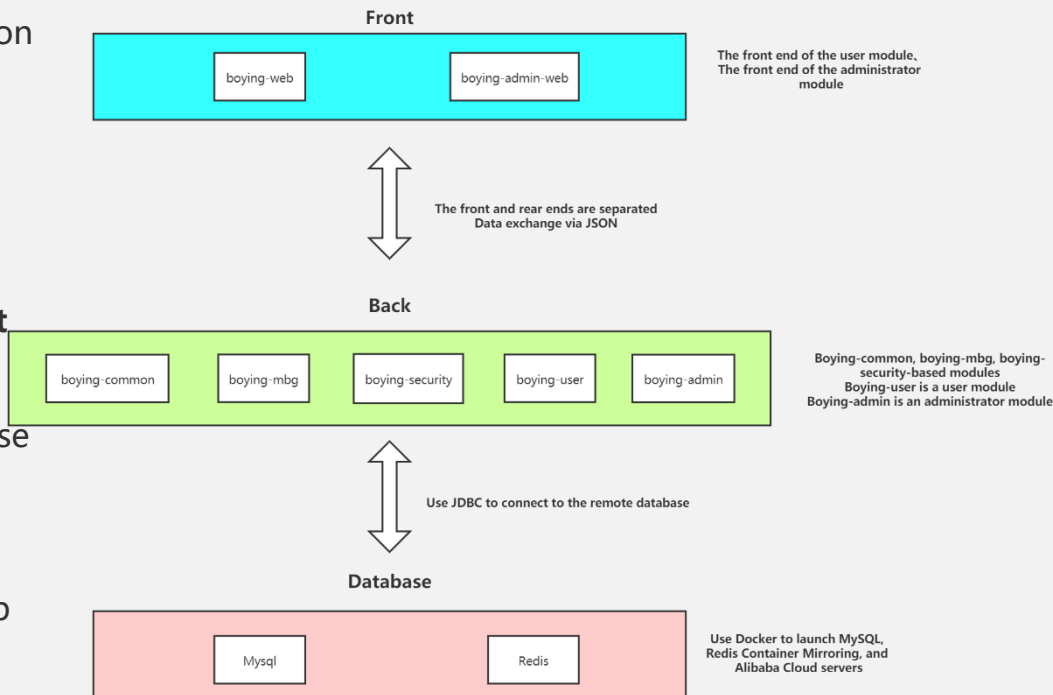


Architectural and Component Design



The overall structure of the project

- The boying project is a front-end separation project
- the front-end is developed by **Vue**
- The back-end is developed by **SpringBoot**
- the database uses the relationship database **Mysql** and the memory database **Redis**
- The front-end mainly includes boying-web (user module) and boying-admin-web (administrator module)



The project deployment address

- Project address (user interface):

<http://47.103.203.188:8080/boying-user/index.html>

- Project address (management page):

<http://47.103.203.188:8080/boying-admin/index.html>

- Back-end Swagger interface address (user module):

<http://47.103.203.188:8000/swagger-ui.html>

- Back-end Swagger interface address (administrator module):

<http://47.103.203.188:7000/swagger-ui.html>

The Front-end

User front

```
├assets
|   ├──config about the images and the aliyun's api
|   ├──css:total css of the web
|   └img:the images of the web
├components: some componets of the web
├icons
|   └iconfont
├router: router of the web
├store
├utils
└views: the pages of the web
```

admin front

```
├assets
|   ├──config
|   └css
├components
├icons
|   └iconfont
├router
├store
├utils
└views
```

The back-end project structure

The back-end mainly includes boying-common (universal code module), boying-mbg (mybatis generator module), boying-security (security authentication module), boying-user (user module), boying-admin (administrator module)

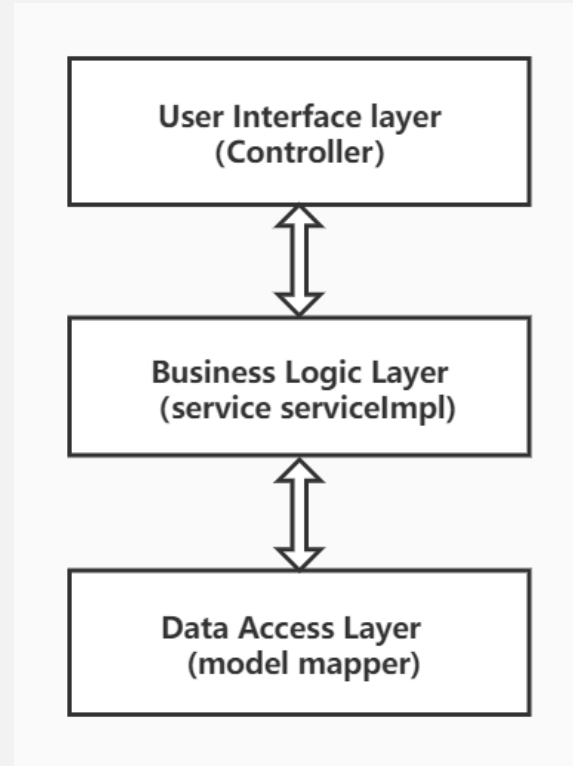
```
boying
├── boying-admin The background management module
├── boying-common Encapsulate the project's common code module
├── boying-mbg MyBatisGenerator automatically generates database operation
code
├── boying-security SpringSecurity permission authentication common code
module
└── boying-user Ticket purchase module for the show at the front desk
```

The back-end Technical selection

Technology	Version	Description
JDK	1.8	Java Development Kit JDK
Spring Boot	2.3.0	Containers and MVC frameworks
Spring Security	5.1.4	Certification and authorization framework
MyBatis	3.4.6	ORM framework
MyBatisGenerator	1.3.3	The data layer code is generated
PageHelper	5.1.8	MyBatis physical pedding plug-in
Swagger-UI	2.9.2	API Document production tools
Redis	5.0	Distributed caching
Docker	18.09.0	Apply the container engine
Druid	1.1.10	The database connection pool
JWT	0.9.0	JWT login support
Lombok	1.18.6	Simplify object encapsulation tools
MySQL	5.7.30	A related database

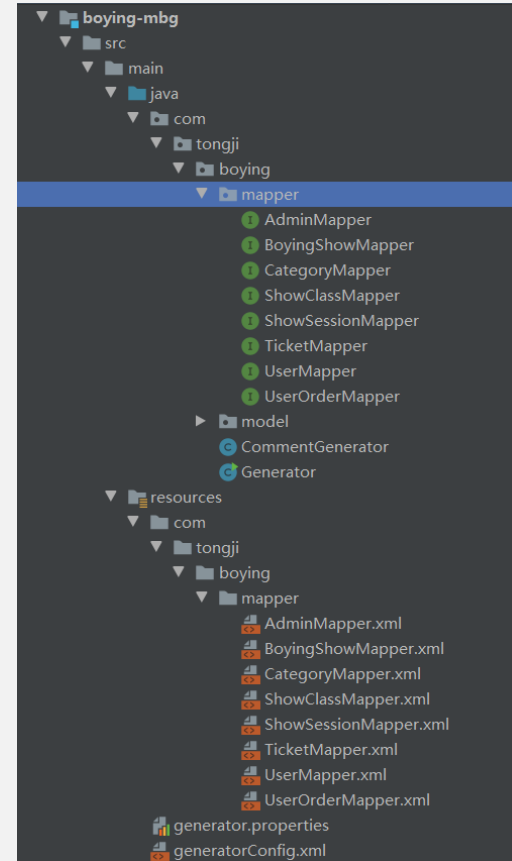
Three-tier architecture

- Boying back-end is a project based on SpringBoot
- The boying back-end project is developed based on the idea of a three-tier architecture
- Data Access Layer (mapper), Business Logic Layer(service), User Interface layer(controller).



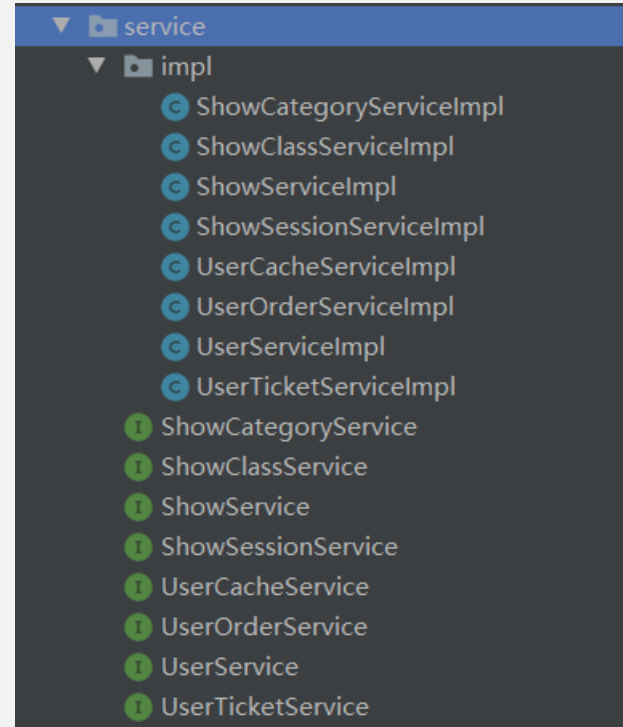
Data Access Layer

Data Access Layer is used for database access (additions and deletions). We used Mybatis and encapsulated Data Access Layer in a boying-mbg sub-module for unified management of the Data Access Layer code.




Business Logic Layer

Business Logic Layer Is used for business processing and data transmission, Data Access Layer from the processing processing, and data to the User Interface layer. We used a separate approach between the service interface and the service implementation, so that the business logic would be easier to scale.



User Interface layer

Primarily responsible for presenting the data processed by the Business Logic Layer to the user. And we use Swagger for easy back-end debugging and front-end use.

 swagger

boying-userAPI文档

ShowCategoryController : 查看演出菜单目录相关API

ShowClassController : 前台演出座次相关API

ShowController : 前台演出相关API

ShowSessionController : 前台演出场次相关API

TicketController : 用户模块票相关API

UserController : 用户模块用户相关信息API

UserOrderController : 用户模块订单相关API

[BASE URL: / , API VERSION: 1.0]

 swagger

boying后台管理系统

boying-admin API接口文档

NumsUserController : 后台普通用户管理

SmsCategoryController : 后台演出目录管理

SmsSessionControl : 后台演出场次

SmsShowController : 后台演出管理

UmsLoginController : 后台管理员登录相关

UmsStatisticsController : 后台报表管理

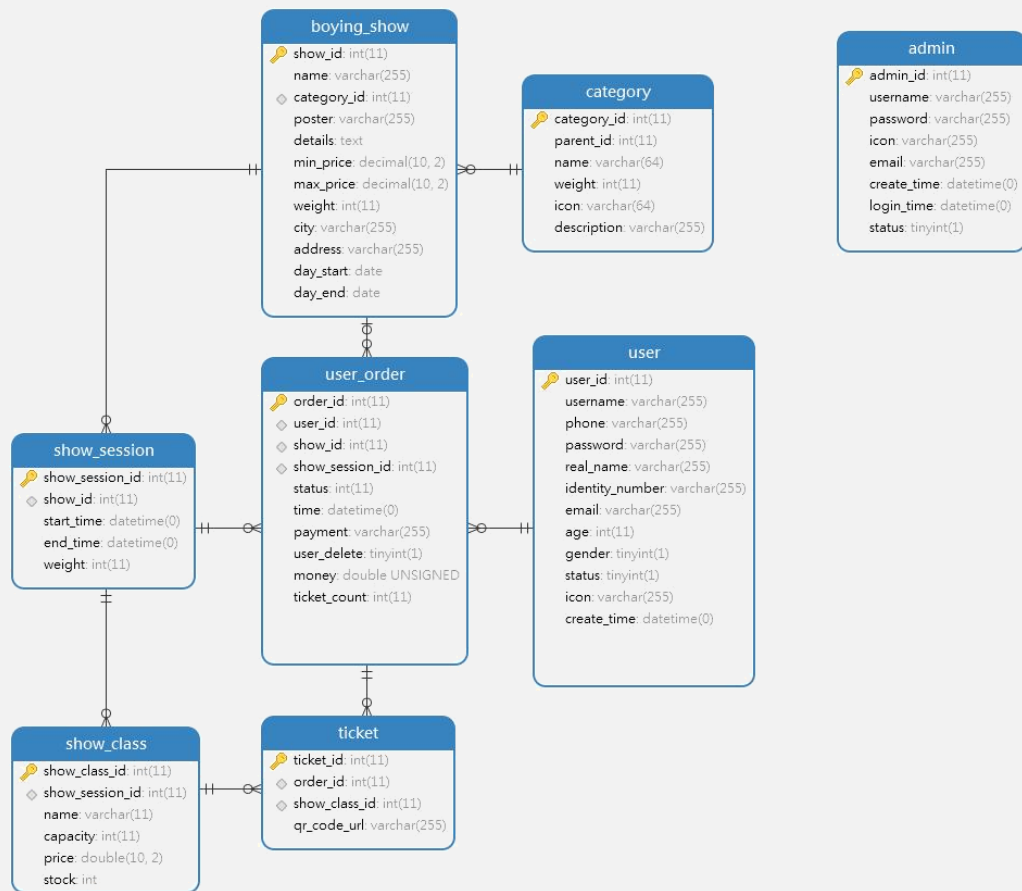
[BASE URL: / , API VERSION: 1.0]



PART 04

Database Design

Database design



user_order Table

user_order

PK/FK	Field	Type	Comment
PK	order_id	int(11) NOT NULL	
FK	user_id	int(11) NOT NULL	The user Id that belongs to
FK	show_id	int(11) NULL	Owned by the show Id
FK	show_session_id	int(11) NOT NULL	Id of the show session
	status	int(11) NOT NULL	Pending viewing, completed, returned orders (1,2,3)
	time	datetime NOT NULL	The time the order was submitted
	payment	varchar(255) NULL	The payment method for the order
	user_delete	tinyint(1) NOT NULL	Whether the order is visible to the user, that is, whether the user deleted the order
	money	double(10,2) unsigned zerofill NULL	The total amount of the order
	ticket_count	int(11) NULL	The total number of tickets

Navicat for MySQL

无标题 - 查询 - Navicat for MySQL

文件 编辑 查看 查询 格式 收藏夹 工具 窗口 帮助

连接 新建查询 表 视图 函数 用户 其它 备份 自动运行 模型 图表

对象 boying_show @boying (47.103.203.188) 无标题 - 查询

保存 查询创建工具 美化 SQL 代码段 文本 导出结果

47.103.203.188 boying 运行已选择的 停止 解释已选择的

1 select * from boying_show;

信息 结果 1 剖析 状态

show_id	name	category_id	poster	details	min_price	max_price	weight	city	address	day_start	day_end
3	【摩登站】2021跨年倒计时重磅大剧「超模D」决赛	9	https://img.alicdn.cc	本场演出采	200.00	380.00	1	北京	中国大戏院	2021-01-20	2021-01-20
4	【全场畅饮】怒放2021 夜场	9	https://img.alicdn.cc	本场演出采	280.00	480.00	1	广州	美琪大戏院	2021-01-20	2021-01-20
5	【中国新说唱、说唱听我的 人气选手】出来玩儿	10	https://img.alicdn.cc	本场演出采	380.00	580.00	1	深圳	时尚艺术中心	2021-01-20	2021-01-20
6	【珍珠剧场】阿黛尔&艾德希兰 致敬音乐会	10	https://img.alicdn.cc	本场演出采	80.00	280.00	1	上海	文化广场	2021-01-20	2021-01-20
7	“繁星闪烁”AKB48 Team SH总选答谢巡回演唱	11	https://img.alicdn.cc	本场演出采	180.00	380.00	1	北京	中国大戏院	2021-01-20	2021-01-20
8	韩雪、刘令飞领衔主演音乐剧《白夜行》	11	https://img.alicdn.cc	本场演出采	200.00	380.00	1	深圳	时尚艺术中心	2021-01-20	2021-01-20
9	音乐剧《献给阿尔吉侬的花束》12月23日-1月3日	12	https://img.alicdn.cc	本场演出采	280.00	480.00	1	北京	中国大戏院	2021-01-20	2021-01-20
10	开心麻花首部悬疑惊悚喜剧《醉后赢家》	12	https://img.alicdn.cc	本场演出采	380.00	580.00	1	上海	文化广场	2021-01-20	2021-01-20
11	赖声川编剧、导演 倪妮主演话剧《幺幺洞洞》	12	https://img.alicdn.cc	本场演出采	80.00	280.00	1	广州	美琪大戏院	2021-01-20	2021-01-20
12	东野圭吾修心悬疑舞台剧《片想》	12	https://img.alicdn.cc	本场演出采	180.00	380.00	1	广州	美琪大戏院	2021-01-20	2021-01-20
13	话剧艺术中心·环球舞台演出季 阿加莎·克里斯蒂经	12	https://img.alicdn.cc	本场演出采	200.00	380.00	1	广州	美琪大戏院	2021-01-20	2021-01-20
14	话剧艺术中心·环球舞台演出季 阿加莎·克里斯蒂经	12	https://img.alicdn.cc	本场演出采	280.00	480.00	1	北京	中国大戏院	2021-01-20	2021-01-20
15	开心麻花高维喜剧《恋爱吧！人类》	13	https://img.alicdn.cc	本场演出采	380.00	580.00	1	深圳	时尚艺术中心	2021-01-20	2021-01-20
16	春放 民国知识分子喜剧《四张机》	13	https://img.alicdn.cc	本场演出采	80.00	280.00	1	上海	文化广场	2021-01-20	2021-01-20
17	话剧《平凡的世界》[九维剧场] 陕西人艺戏剧周	14	https://img.alicdn.cc	本场演出采	180.00	380.00	1	广州	美琪大戏院	2021-01-20	2021-01-20
18	话剧《四世同堂》	14	https://img.alicdn.cc	本场演出采	200.00	380.00	1	深圳	时尚艺术中心	2021-01-20	2021-01-20
19	2020圣诞超级枕头大战-全程高能一战到底	15	https://img.alicdn.cc	本场演出采	280.00	480.00	1	深圳	时尚艺术中心	2021-01-20	2021-01-20
20	开心麻花2020年度大戏《了不起的模拟》	15	https://img.alicdn.cc	本场演出采	380.00	580.00	1	北京	中国大戏院	2021-01-20	2021-01-20

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select * from boying_show

查询时间: 0.104s 第 1 条记录 (共 117 条)



PART 05

Collaboration Among members

Collaboration among team members

Github Collaborative Development

GitHub is used for version management during the development of the system

We also use git GUI like Sourcetree and Github desktop to manager the version of the codes better

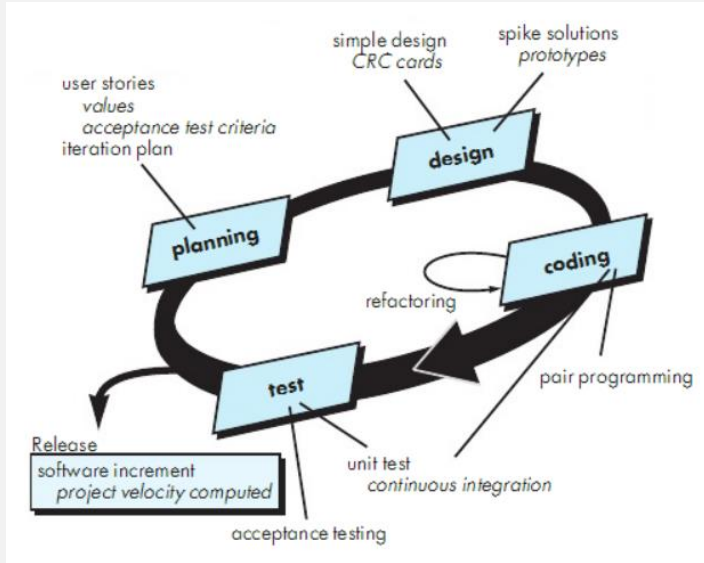


Separation of frontend and backend

The project is separated into frontend and backend and in order to quickly develop a runnable project, we develop frontend and backend at the same time.

Collaboration among team members

Agile development



Before we release a software increment, we

1.Planning

Gather the requirements and determine what to do.

2.Design

Provide the implementation guidance for the requirement.

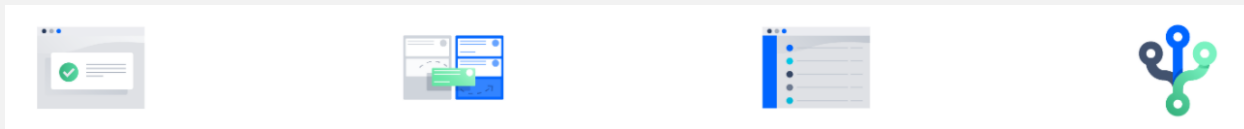
3.Coding

Do the coding, cooperate by Github.

4.Test

Debug and ensure the project meet the requirement.

Github development specifications



1. The commit is made uniformly under the branch of the develop.
2. Before each commit (preferably before writing code), pull the last version of code to avoid code conflicts.
3. Each submission should describes where the changes have been made.
4. Follow a uniform code style (Alibaba Java Coding Guidelines)



PART 06

Process of the development

Process of the development



1. Determine the topics of the project, implementation function points, table design, business logic and other information by team discussion.
2. Design the database table structure with Navicat-15 for MySQL.
3. Build the initial project environment for the SpringBoot-Mybatis environment.
4. Integrate Swagger, Redis and other development tools.
5. Install docker on the cloud server and download the Redis, Mysql image to start the container.
6. Build the different modules of the project.
7. The frontend is projected through Vue and the API is viewed through the backend Swagger interface and interacts with the backend with Axios.
8. Once the project is debugged and completed, it is deployed uniformly on the Alibaba Cloud.



PART 07

Problems and solutions encountered

Front and Back Aspects

- To log in with Swagger, be sure to configure the Bearer token
- Alibaba Cloud OSS CORS issues require cross-domain-related configuration in the Alibaba Cloud console
- Ports such as 7000, 8000, 8080 need to be configured for the server, otherwise they cannot be accessed

Cache Aspects

If you modify the database directly, the data in the Redis cache may still exist, so you need to manually empty the cache after you modify the database data

```
# Connect to the cloud server command line
docker exec -it redis redis-cli -a "redis"
flushall
```




THANKS!