

[iExpress]

A smart express service platform

CONTENTS

1

Introduction

iExpress

2

Functionalities

iExpress

3

System Design

iExpress

4

Important Issues

iExpress

5

Collaboration

iExpress

6

Demonstration

iExpress



Introduction

A smart express service platform

Introduction

Our project background

The development of computer technology has a great impact on our daily life and production activities. The development of computer network promotes online shopping, which makes the express business more busy.

In order to help the express station to better manage the express delivery, improve the efficiency of express delivery. We designed an express management system——**iExpress**.



Introduction



What is iExpress

iExpress is an express management network platform for community and campus, which provides **convenient and efficient** express delivery, check express delivery and express pick-up services.

iExpress is divided into two parts. Customer can pick up express delivery, make online booking for express delivery, and query package information through **mini programs on Wechat.**

Express Station staff manage the express site through the background management system based on **Web pages,** including express management, employee management, warehouse management, package order management, and pick-up message management.

Project characteristic



Simple and efficient

no advertising and complicated functions. Designed to be simple and practical

Complete and practicable

Including express delivery, express delivery, inquiry express, The function is complete and practical.

Separate foreground and background

Devided into two parts, Wechat mini program and Web. Clear division of work between front and rear platforms

Development Environment

Foreground

Wechat

- Use the 'mini program' on Wechat.
- Include wxml,wxss,js
- NodeJS environment of Tencent Cloud server

Background

Vue.js

- Based on Web Page
- Vue+Vue-Router+Vue-axios+VueX
- Element UI

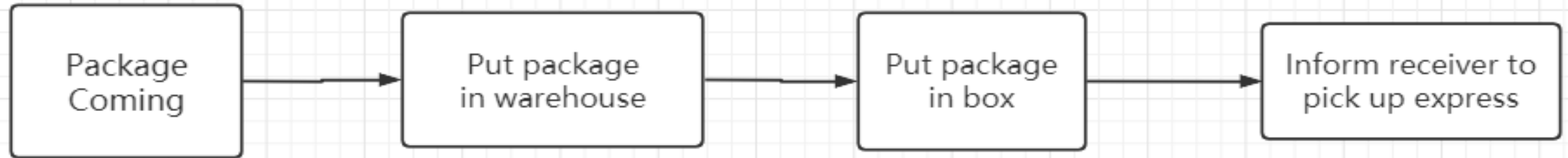
Server

Springboot

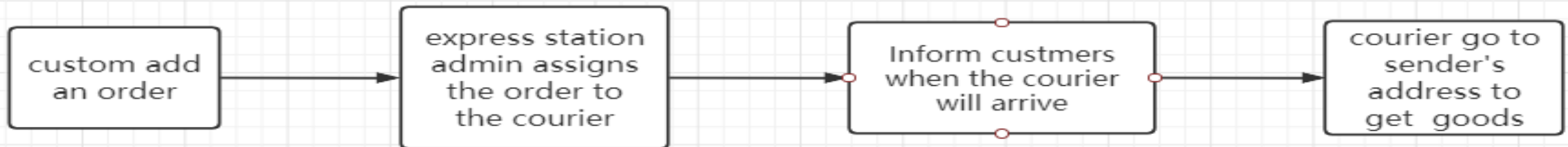
- Springboot
- Mybatis
- JWT

Introduction

When Someone's package arrives



If someone wants to send an express





Functionalities

Foreground System for users and
Background System for administrators

Foreground

An overview of functionalities

In addition to basic functions like registration and login, functionalities of foreground system can mainly be divided into four modules, which are personal information management, order management, package management, message acquirement.

01

Personal Information Management

- Users can view their personal information including nickname, phone number and address.
- Nickname and address can be changed at any time, but phone number has no permission to be changed because it has been tied to the account

02

Order Management

- Users can order to send packages by filling an form and submitting it through the system.
- Orders been submitted can be checked by status including 'on going', 'completed' and 'cancelled'.
- Before the employee come to pick the package, users can cancel the order .

03

Package Management

- Users can view the packages sended to them whether they are received or unreceived. They are displayed by different status including 'unreceived', 'received' and 'faulty'.
- If the package is unreceived, then users can choose to receive the package themselves. This situation mainly occurs when the system goes wrong and didn't change the status timely.

04

Message acquirement

- In the other system, messages, like noticing users to take express delivery and reminding users that their orders has been underway, will be sended to users. So through the message page, users can receive and check the notice.

Foreground

注册

昵 称:dbj

手机号:13127525101

密 码:●●●●●●

性 别:☐男☒女

注意：本程序不提供验证手机号功能，请用户自觉输入正确手机号以便享受更多功能。手机号绑定后不可修改，请谨慎操作。

注 册

已有账号？返回登陆

注册

昵 称:dbj

手机号:13127525110

提示

注册成功！

取消确定

注 册

已有账号？返回登陆

注册

昵 称:dbj

手机号:13127525101

提示

注册失败，请检查手机号是否已经注册，或用户名密码过长。

取消确定

注 册

已有账号？返回登陆

Register

Users new to the system can register for an account. In this page, a user just only need to input his/her nickname, phone number, password and check his/her sex, and then he/she can create an account.

It should be noted that phone number verification service is not available for the time being.Users must be responsible for the phone number used to register, as the number will be an important proof to log in and enjoy other functions.

What's more, the system will report an error if users input too long nickname or password, or the phone number has already been registered.

Foreground



Login

Users already having account should input his phone number and password registered correctly to log in the system. The system will check both after users submit their input and return the result. If a wrong phone number or password is submitted, the system will return the warning and refuse to pass the user. If user logs in successfully, pages will be switched to center page.

Foreground

WeChat 15:20 100%

< 快递中心

个人中心

昵称: KUNMAO

手机号: 13127525101

地址:

省份: 上海市

城市: 市辖区

区/县: 嘉定区

详细地址: 安亭镇曹安公路4800号同济大学

修改

Check information

After logging in the system, users can pick into their information page and check their personal information. Nickname, phone number, address are displayed. These informations are used to make it convenient for users when filling the order.

Change information

Through the page left, users can change their personal information. The province, city and region can be picked automatically, considering user convenience.

< 快递中心

信息修改

昵称: KUNMAO

省份: 上海市

城市: 市辖区

区/县: 嘉定区

详细地址: 安亭镇曹安公路4800号同济大学

提交

Foreground

快递中心

1

选择快递公司

2

填写发件人信息

3

填写收件人信息

4

确认信息

5

下单成功

...

🔍

请选择快递公司

下一步

✓

选择快
递

1

填写发
件人信
息

2

填写收
件人信
息

3

确认信
息

4

下单成
功

请填写收件人的信息

姓名:dbj

电话号码:13127525110

所在省:上海市

所在城市:市辖区

所在区:普陀区

所在详细地址:test

请确保所有信息真实有效

上一步

下一步

预约时间

上门取件时间:2020-12-25

上一步

下单

✓

选择快
递

1

填写发
件人信
息

2

填写收
件人信
息

3

确认信
息

4

下单成
功

请填写发件人的信息

姓名:KUNMAO

电话号码:13127525101

所在省:上海市

所在城市:市辖区

所在区:嘉定区

所在详细地址:安亭镇曹安公路4800号同

请确保所有信息真实有效

上一步

一键填

下一步

Order to send

The system provides an important function for users which is ordering to send expressages without going to a courier station. Users can make an order through the following steps:

Firstly, users need to choose a logistics company users would like to transport their packages; Secondly, users are required to input their information as sender's information which can be filled quickly by clicking the middle button; Thirdly, a receiver's information is also needed because it determines whether the package can be correctly sended to the receiver; Finally, users just need to choose a date when employees will come to pick the package. Attention that the date must be after the time order been created and no later than three days. Every step finished, users should click the black button to continue the process.

Foreground

View and receive packages



Users can click into the page listing all the packages he will received or has received. Packages are divided into three types, users view specific type of packages by clicking the header which lines the types of packages. When a user is viewing unreceived packages, he/she can choose to receive the package himself/herself since the system may go wrong that it didn't change the packages' status when the user has received them in station. What is to be noted is that once the receipt is confirmed, it cannot be cancelled. Users can find the package he/she just received in page of received packages.

Foreground

View and cancel order



Users can click into the page listing all the orders he has made. Orders are divided into three types, users view specific type of orders by clicking the header which lines the types of orders. Before employees come to pick packages, users can cancel the order if he/she has regretted. In order page, unpicked orders are listed and each has a button right. Users click the button and cancel the corresponding order, then the cancelled order will appear in the list of cancelled orders. Attention that once the order is cancelled, it cannot be recovered.

Foreground



Acquire messages

In the other system, messages like noticing users to pick expressages and reminding users that their orders has been in process will be send to users. So through the message page, users can receive and check the notice. The latest message will be show alone in the page, unless users choose to show all. It's a pity that users cannot recieve the message if they haven't logged in the system. Due to the time limitation, we can only show messages in this page.

Background Management

Overview

Express Station staff use the backstage part of the system, that is, web part, including user login, registry, delivery, collection, express management, warehouse capacity management, employee management and message management.

Employee Management

Order Management

Message Management

Package storage

Package inbound

Warehouse capacity query

Package management

Locker capacity query

Background Management

1

填写基本信息

2

填写寄件人信息

3

填写收件人信息

4

完成

包裹入库成功

包裹ID: 9880828645542

寄件人: wq

收件人: wq

仓库编号: 000001

入库时间: 2020-12-24T11:04:14.240+00:00

继续入库

入库出库 / 包裹出入柜

仓库号: 请选择仓库

包裹编号:

快递柜号: 请选择快递柜

员工编号:

快递箱具体位置

行数:

列数:

是否发送取件通知: ☒

快速入柜 取消

入库出库 / 包裹出入柜

快递柜号: D

取件码: M75XM3R

确认取件 取消

包裹入库出库

包裹入库

包裹出库入柜

模拟收件

In the first part, the simulation of package entry and exit and signature, because we do not have real express cabinets, warehouses, scanners and so on, we have a simple simulation of express delivery, express delivery, express receipt and receipt

仓库A 剩余容量: 907

仓库B 剩余容量: 1200

仓库C 剩余容量: 1400

仓库D 剩余容量: 800

请选择仓库

仓库选择

包裹编号

搜索

	仓库编号	包裹编号	发件人	发件人手机	收件人	收件人手机	入库时间
<input type="checkbox"/>	000001	3	wq	19946251111	wq	19946251111	2020-12-24 17:02:23
<input type="checkbox"/>	000001	4	wq	19946251111	wq	19946251111	2020-12-24 17:02:27
<input type="checkbox"/>	000001	9880828645542	wq	19946251111	wq	19946251111	2020-12-24 19:04:14

快速补充A 剩余容量: 100

快速补充B 剩余容量: 100

[illegible]

快递柜容量查询

Q 寄件订单管理

Package Information Management

You can manage all package information from here, and you can edit and query it. Supports status query, package ID query, and package traceability.

Background Management

包裹信息管理

寄件订单管理

IEExpress快递服务中心

系统主页

员工管理

包裹入库出库

网点容量查询

仓库容量查询

快递员容量查询

包裹信息管理

寄件订单管理

消息管理

员工管理 × 包裹管理 × 快递员管理 × 包裹入库 × 寄件订单管理 ×

快速选择

寄件订单管理

包裹编号

状态

订单编号

搜索

刷新

分配

查看我的订单

	订单编号	发件人	发件人手机	收件人	收件人手机	收件地址	快递公司	分配的员工	状态	操作
<input type="checkbox"/>	10100	KUNWA O	13127525101	dxj	13127525110	上海市市辖区静安区test	中通快递	000002	已接单	<div>接单 分配人员 完成 编辑</div> <div>删除</div>
<input type="checkbox"/>	10024	Sleepycat	13127525101	123546	12584780685	北京市市辖区东城区清河	中通快递	000002	已接单	<div>接单 分配人员 完成 编辑</div> <div>删除</div>
<input type="checkbox"/>	10063	test123	18172500352	test11111	13127525101	北京市市辖区东城区2	中通快递	000008	已接单	<div>接单 分配人员 完成 编辑</div> <div>删除</div>
<input type="checkbox"/>	10080	KUNWA O	13127525101	TEST	13127525102	天津市市辖区和平区test	中通快递	000008	已接单	<div>接单 分配人员 完成 编辑</div> <div>删除</div>
<input type="checkbox"/>	10062	八面玲珑	13127525101	子安	18752510116	上海市市辖区嘉定区同济大学	中通快递	000001	已接单	<div>接单 分配人员 完成 编辑</div> <div>删除</div>
<input type="checkbox"/>	10023	Sleepycat	13127525101	123	1772345677	北京市市辖区东城区123	中通快递	000003	已接单	<div>接单 分配人员 完成 编辑</div> <div>删除</div>

共 0 条

Order Information Management
You can manage all package information from here, you can accept orders, assign orders, complete orders, edit, query operations.

Background Management

消息管理

批量删除

消息类型

用户id

搜索

	ID	用户id	消息类型	内容	状态	发送时间	操作
<input type="checkbox"/>	6	16525543212	寄件消息	您的寄件订单已被接单，快递员00001将在您预约时间内上门，上门后给取件码4410，为安全取件，建议与快递小哥电话联系	已重发	2020/12/22	重新发送 删除
<input type="checkbox"/>	7	16525543212	寄件消息	您的寄件订单已被接单，快递员00001将在您预约时间内上门，上门后给取件码4410，为安全取件，建议与快递小哥电话联系	已重发	2020/12/22	重新发送 删除
<input type="checkbox"/>	8	16525543212	寄件消息	您的寄件订单已被接单，快递员00001将在您预约时间内上门，上门后给取件码4410，为安全取件，建议与快递小哥电话联系	已重发	2020/12/22	重新发送 删除
<input type="checkbox"/>	9	16525543212	取件消息	您的包裹已到达，请携带有效证件前往快递站领取，取件码TJ000001.请在8: 00-17: 30内取件	已重发	2020/12/21	重新发送 删除
<input type="checkbox"/>	10	16525543212	寄件消息	您的寄件订单已被接单，快递员00001将在您预约时间内上门，上门后给取件码4411，为	已重发	2020/12/22	重新发送 删除

Message Management

Express station staff view the list of message in the syetem and perform some operations.

- Delete message
- Resend message
- Search message

Background Management

添加员工

员工id

搜索

员工ID	姓名	性别	地址	联系电话	部门id	职位	状态	操作
000001	匡爬	male	上海嘉定	19966665566	000001	临时工	空闲	修改信息 删除
000002	马保国	男	上海嘉定	19966665557	000003	快递员	空闲	修改信息 删除
000003	卢本伟	男	上海嘉定	18855336660	000003	快递员	空闲	修改信息 删除
000004	乔碧梦	男	上海嘉定	18855336661	000003	快递员	空闲	修改信息 删除
000005	周波	男	上海嘉定	18855336662	000003	快递员	空闲	修改信息 删除
000006	嬴政	男	上海嘉定	18855336663	000003	快递员	空闲	修改信息 删除
000007	裴禽虎	男	上海嘉定	18855336664	000003	快递员	空闲	修改信息 删除
000008	李信	男	上海嘉定	18855336665	000003	快递员	空闲	修改信息 删除

Employee Management

Express station staff view the list of employees in the syetem and perform some operations.

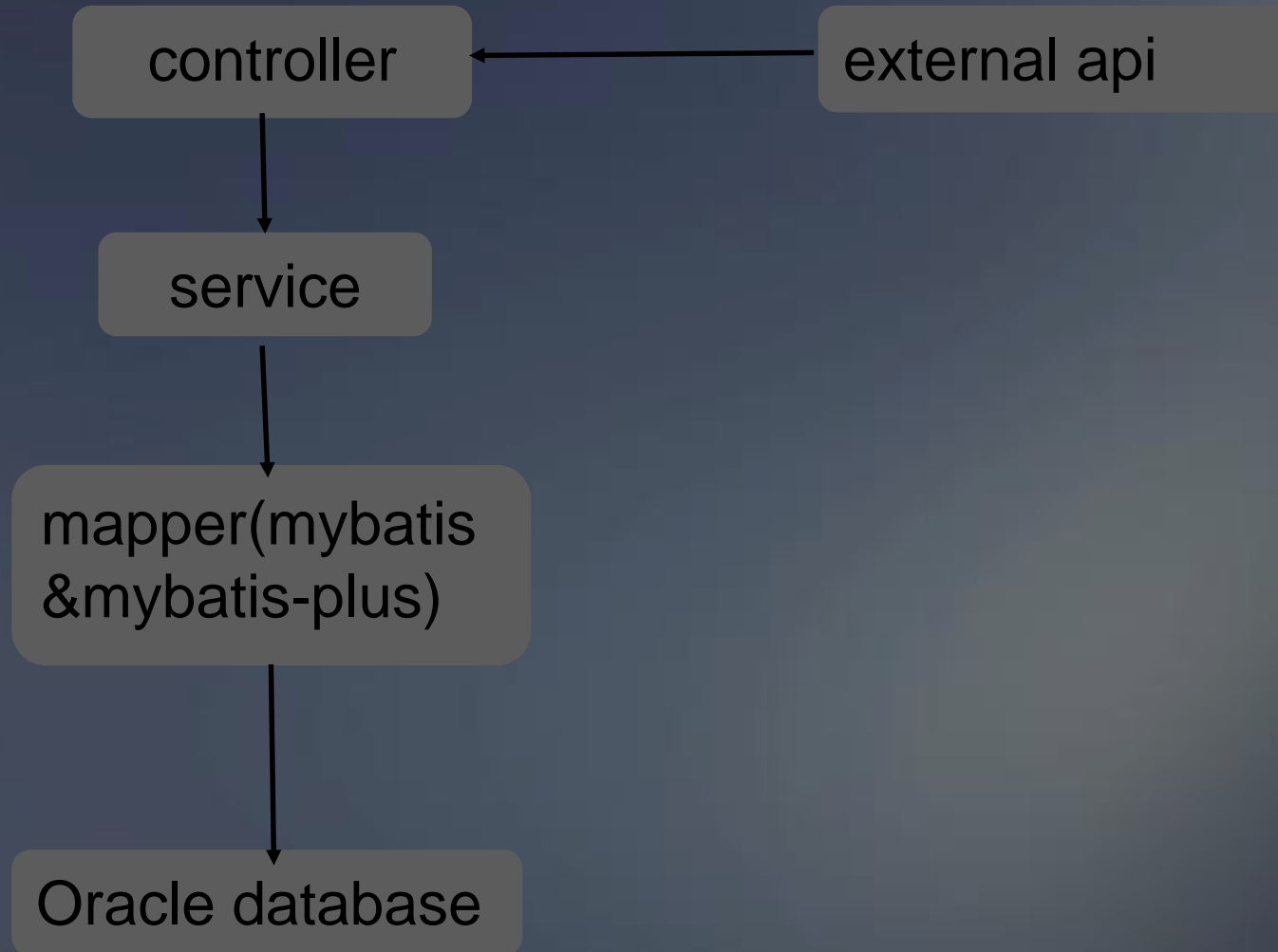
- Add employee
- Delete employee
- Modify information of employee



Design

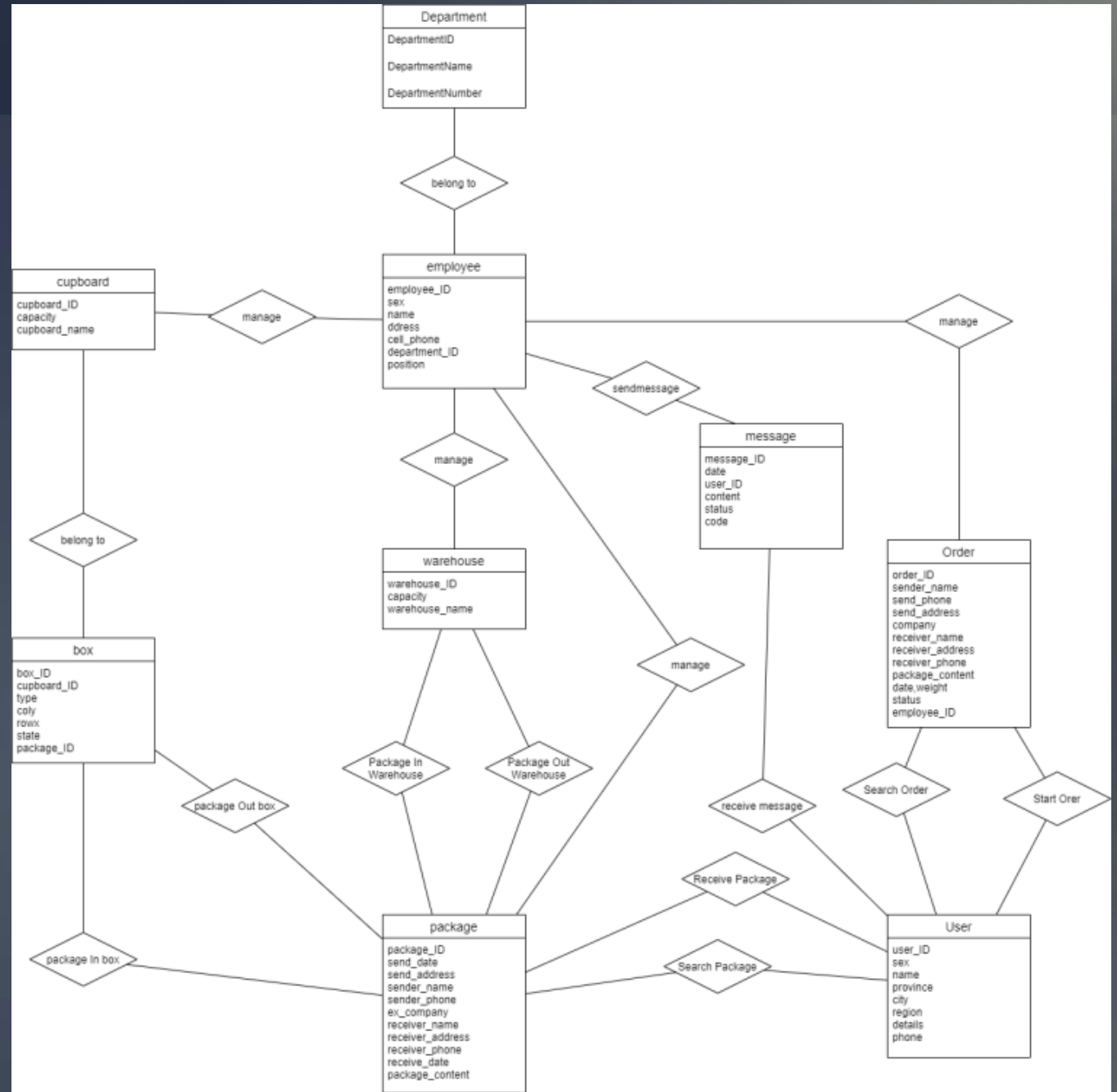
Architecture and Components
Functionalities and Interfaces
Database

Architecture



DatabaseDesign

ADMINISTRATOR
BOX
CUPBOARD
DEPARTMENT
EMPLOYEE
EX_ORDER
MESSAGE
PACK_IN_WARE
PACKAGE
PACKAGE_OUT_WARE
USERS
WAREDETAILS
WAREHOUSE



DatabaseDesign




ADMINISTRATOR	
ADMIN_NAME	VARCHAR2(20)
PASSWORD	VARCHAR2(20)
EMPLOYEE_ID	VARCHAR2(20)





USERS	
USER_ID	VARCHAR2(20)
SEX	VARCHAR2(10) = NULL
NAME	VARCHAR2(20)
PROVINCE	VARCHAR2(20) =
PASSWORD	VARCHAR2(20)
CITY	VARCHAR2(20) = '直辖市
REGION	VARCHAR2(20) = '嘉
DETAIL	VARCHAR2(100) = '電









DEPARTMENT	
DEPARTMENT_ID	VARCHAR2(20)
DEPT_NAME	VARCHAR2(20)
DEPT_NUMBER	VARCHAR2(20)



EMPLOYEE	
EMPLOYEE_ID	VARCHAR2(20)
SEX	VARCHAR2(20)
NAME	VARCHAR2(20)
ADDRESS	VARCHAR2(20)
CELL_PHONE	VARCHAR2(20)
DEPARTMENT_ID	VARCHAR2(20)
POSITION	VARCHAR2(20)
STATUS	VARCHAR2(20)

DatabaseDesign

▼	CUPBOARD
	CUPBOARD_ID VARCHAR2(20)
	CUPBOARD_NAME VARCHAR2(20)
	CAPACITY NUMBER(*)

	WAREHOUSE
	WAREHOUSE_ID VARCHAR2(20)
	WAREHOUSE_NAME VARCHAR2(20)
	CAPACITY VARCHAR2(20)

▼	BOX
	BOX_ID VARCHAR2(20)
	CUPBOARD_ID VARCHAR2(20)
	TYPE VARCHAR2(20)
	COLY VARCHAR2(20)
	ROWX VARCHAR2(20)
	STATE VARCHAR2(20)
	PACKAGE_ID VARCHAR2(20)
	USER_ID VARCHAR2(20)

WAREDETAILS	
	PACKAGE_ID VARCHAR2(20)
	WAREHOUSE_ID VARCHAR2(20)

DatabaseDesign

PACK_IN_WARE

PACKAGE_ID VARCHAR2(20)
WAREHOUSE_ID VARCHAR2(20)
EMPLOYEE_ID VARCHAR2(20)
IN_DATE DATE

MESSAGE

MESSAGE_ID VARCHAR2(20)
SEND_DATE VARCHAR2(20)
USER_ID VARCHAR2(20)
CONTENT VARCHAR2(300)
MESSAGE_TYPE VARCHAR2(20)
STATUS VARCHAR2(20)

EX_ORDER

SENDER_NAME VARCHAR2(20)
SENDER_PHONE VARCHAR2(20)
SENDER_ADDRESS VARCHAR2(100)
COMPANY VARCHAR2(20)
RECEIVER_NAME VARCHAR2(20)
RECEIVER_ADDRESS VARCHAR2(100)
RECEIVER_PHONE VARCHAR2(20)
PACKAGE_CONTENT VARCHAR2(20)
ORDER_DATE DATE (auto)
WEIGHT FLOAT(*) (auto)
STATUS VARCHAR2(20)
EMPLOYEE_ID VARCHAR2(20)

PACKAGE

PACKAGE_ID VARCHAR2(20)
SEND_DATE DATE
SENDER_ADDRESS VARCHAR2(100)
SENDER_NAME VARCHAR2(20)
SENDER_PHONE VARCHAR2(20)
COMPANY VARCHAR2(20)
RECEIVER_NAME VARCHAR2(20)
RECEIVER_PHONE VARCHAR2(20)
RECEIVER_ADDRESS VARCHAR2(100)
RECEIVE_DATE DATE
PACKAGE_CONTENT VARCHAR2(20)
STATUS NUMBER(*) = 0
WEIGHT FLOAT(*) = 1

PACKAGE_OUT_WARE

PACKAGE_ID VARCHAR2(20)
WAREHOUSE_ID VARCHAR2(20)
OUT_DATE VARCHAR2(20)
EMPLOYEE_ID VARCHAR2(20)
BOX_ID VARCHAR2(20)
MESSAGE_ID VARCHAR2(20)



Team Collaboration

Team Collaboration

- Github Collaborative Development
- separation of front-end and backend
- agile development



Important Issues

Important issue

- Using token to protect data
- The interaction between front-end and backend
- deployment

THANKS

Make you different