

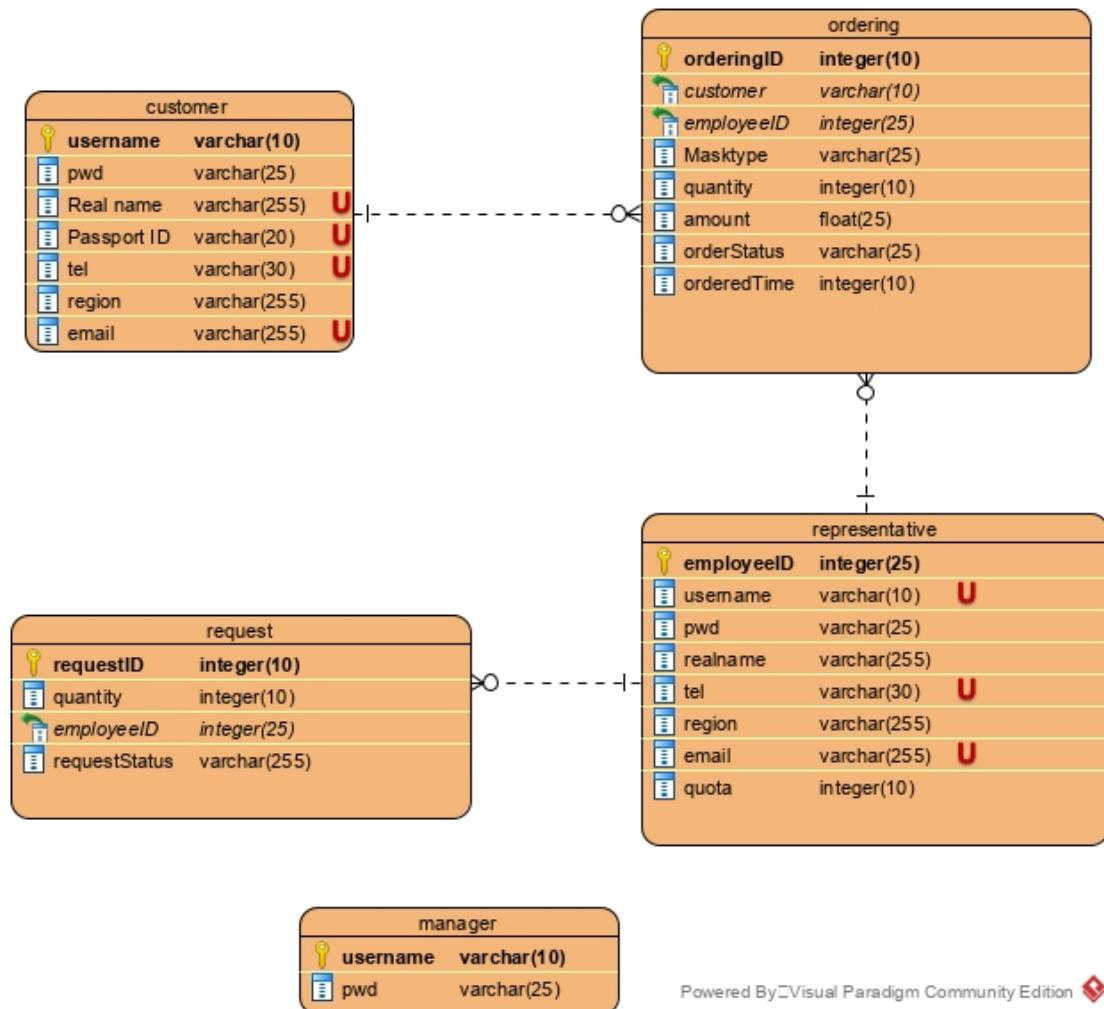
DBI Coursework2 Reference Document

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Due to the overlap of requirements, “Brief walk-through” and “test” are integrated into one section.

a. Entity-Relationship Diagram



b. SQL “create table” statements

```
USE shysh1;
```

```
DROP TABLE IF EXISTS customer;
CREATE TABLE customer(
    username VARCHAR(10) PRIMARY KEY NOT NULL,
    realname VARCHAR(255) NOT NULL,
    pwd VARCHAR(25) NOT NULL,
    passportID VARCHAR(255) UNIQUE NOT NULL,
    tel VARCHAR(30) UNIQUE NOT NULL,
    region VARCHAR(255) NOT NULL,
    email VARCHAR(255) UNIQUE NOT NULL
);
```

```
DROP TABLE IF EXISTS representative;
CREATE TABLE representative(
```

```

        employeeID INT(25) PRIMARY KEY NOT NULL AUTO_INCREMENT,
        username VARCHAR(10) UNIQUE NOT NULL,
        realname VARCHAR(255) NOT NULL,
        pwd VARCHAR(25) NOT NULL,
        tel VARCHAR(30) UNIQUE NOT NULL,
        region VARCHAR(255) NOT NULL,
        email VARCHAR(255) UNIQUE NOT NULL,
        quota Int(10) NOT NULL
    );

DROP TABLE IF EXISTS ordering;
CREATE TABLE ordering(
    orderingID Int(10) PRIMARY KEY NOT NULL AUTO_INCREMENT,
    Masktype VARCHAR(25) NOT NULL,
    quantity INT(10) NOT NULL,
    amount FLOAT(25) NOT NULL,
    customer VARCHAR(10) NOT NULL,
    employeeID INT(25) NOT NULL,
    orderStatus VARCHAR(25) NOT NULL,
    orderedTime DATETIME NOT NULL,
    FOREIGN KEY (customer) REFERENCES customer(username),
    FOREIGN KEY (employeeID) REFERENCES representative(employeeID)
);

DROP TABLE IF EXISTS request;
CREATE TABLE request(
    requestID Int(10) PRIMARY KEY NOT NULL AUTO_INCREMENT,
    quantity INT(10) NOT NULL,
    employeeID INT(25) NOT NULL,
    requestStatus VARCHAR(255)NOT NULL,
    FOREIGN KEY (employeeID) REFERENCES representative(employeeID)
);

DROP TABLE IF EXISTS manager;
CREATE TABLE manager(
    username VARCHAR(10) PRIMARY KEY NOT NULL,
    pwd VARCHAR(25) NOT NULL
);

INSERT INTO manager (username, pwd) VALUES ("John","john12345");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region,   email,   quota)   VALUES  ("5",    "cat",    "Qian Bai",
"defaultpassword", "15672886176", "British", "jk563@qq.com", "0");

```

```
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("6", "dog", "Gerald Arthur",
"defaultpassword", "14472966176", "Japan", "th753@qq.com", "50");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("7", "apple", "Baldwin Juliet",
"defaultpassword", "13977486906", "China", "apple@qq.com", "23");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("8", "banana", "Viola Hosea",
"defaultpassword", "13672576110", "China", "banana@qq.com", "77");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("9", "pear", "Rodney Doris",
"defaultpassword", "15582876746", "Korean", "pear@qq.com", "10");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("10", "jack", "Quincy Burns",
"defaultpassword", "14742716536", "America", "jack@qq.com", "50");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("11", "queen", "Ron Buckle",
"defaultpassword", "13986485306", "China", "queen@qq.com", "100");
INSERT INTO representative (employeeID, username, realname, pwd, tel,
region, email, quota) VALUES ("12", "king", "Hazel Jeames",
"defaultpassword", "13466896110", "China", "king@qq.com", "47");

INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("grape", "Rebecca Wilde", "defaultpassword", "RF5633",
"15078246432", "China", "grape@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("juice", "Morton Philemon", "defaultpassword", "GH5581",
"1406656462", "China", "juice@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("pig", "Elmer Boswell", "defaultpassword", "JD4523",
"1527426853", "China", "pig@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("deer", "Martha Sophy", "defaultpassword", "EC5835",
"15323546743", "China", "deer@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("uzi", "Jodie Birrell", "defaultpassword", "UJ5230",
"12374546443", "China", "uzi@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("12345", "Otis Rosa", "defaultpassword", "LK5734",
"15730246632", "China", "12345@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("321", "Boyd Austin", "defaultpassword", "QW2663",
"17246249063", "China", "321@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
```

```
email) VALUES ("5555", "Suzanne Salome", "defaultpassword", "CV1648",
"14578249732", "China", "5555@qq.com");
INSERT INTO customer (username, realname, pwd, passportID, tel, region,
email) VALUES ("gran", "Ralap Scott", "defaultpassword", "HB4583",
"1208904563", "China", "gran@qq.com");
```

c. design discussion

(1) Entity1: customer

This entity has a one-to-many relationship with ordering. To be specific, exactly one customer can have zero or more orderings. According to the requirements, a customer has the following attributes: username, realname, pwd, passportID, tel, region and email. User name is used as primary key to uniquely identify each customer. None of these attributes can be set to null to avoid incomplete user information. Besides the primary key, passport ID, telephone number and e-mail address must be unique for each customer to make sure each person can only have one customer account. Following is details of these attributes

username:

SQL feature: primary key for customer

Type: a string of 1-10 characters

realname:

SQL feature: NOT NULL

Type: a string of 1-255 characters (to handle unexpected long names)

Format: /^[A-Z][a-z]+\s[A-Z][a-z]+\$/

pwd (password):

SQL feature: NOT NULL

Type: a string of 10-25 characters

Format: numbers, letters and underscores only

Supplement: "password" is reserved by SQL so pwd is used instead.

passportID:

SQL feature: NOT NULL UNIQUE

Type: a non-empty string

Format: /^[0-9a-zA-Z]+\$/

tel (short for telephone number):

SQL feature: NOT NULL UNIQUE

Type: a string of 1-30 characters

Format: numbers only

region:

SQL feature: NOT NULL

Type: a string of which domain is

{"China", "Japan", "Russia", "America", "Korean", "British"}

email:

SQL feature: NOT NULL UNIQUE

Type: a string of 1-255 characters (to handle unexpected long e-mail addresses)

Format: /^.+@.+\\$/

(2) Entity2: representative

This entity has one-to-many relationships with ordering and request. To be specific, exactly one representative can be assigned to operate zero or more orderings and can send zero or more quota requests. According to the requirements, a representative has the following attributes: employeeID, username, realname, pwd, tel, region, email and quota. “employeeID” is used as primary key to uniquely identify each representative. None of these attributes can be set to null to avoid incomplete user information. Besides the primary key, telephone number and e-mail address must be unique for each customer to make sure each person can register for more than one representative account. “username” is also unique to ensure log in. Following is details of these attributes.

employeeID:

SQL feature: primary key for representatives, automatically incremented

Type: integer

username:

SQL feature: NOT NULL UNIQUE

Type: a string of 1-10 characters

realname:

SQL feature: NOT NULL

Type: a string of 1-255 characters (to handle unexpected long names)

Format: /^[A-Z][a-z]+\s[A-Z][a-z]+\$/

pwd (password):

SQL feature: NOT NULL

Type: a string of 10-25 characters

Format: numbers, letters and underscores only

Supplement: “password” is reserved by SQL so “pwd” is used instead.

tel (short for telephone number):

SQL feature: NOT NULL UNIQUE

Type: a string of 1-30 characters

Format: numbers only

region:

SQL feature: NOT NULL

Type: a string of which domain is

{"China", "Japan", "Russia", "America", "Korean", "British"}

email:

SQL feature: NOT NULL UNIQUE

Type: a string of 1-255 characters (to handle unexpected long e-mail addresses)

Format: `/^.[@.+$/`

quota:

SQL feature: NOT NULL

Type: integer

Supplement: initial quota is 0

(3) Entity3: ordering

This entity has many-to-one relationship with representative and customer. To be specific, many orderings can be ordered one customer and assigned to one representative. To achieve required functionalities, an ordering has the following attributes: orderingID, Masktype, quantity, amount, customer, employeeID, orderStatus and orderedTime. “orderingID” is used as primary key to uniquely identify each ordering record. “customer” and “employeeID” are foreign keys that references customer(username) and representative(employeeID) respectively, so that who ordered this ordering and who was appointed to this ordering can be traced. None of these attributes can be set to null to avoid incomplete ordering information. Following is details of these attributes.

orderingID:

SQL feature: primary key for orderings, automatically incremented

Type: integer

Masktype:

SQL feature: NOT NULL

Type: a string of which domain is {"N95 respirator", "surgical mask", "N95 surgical respirator"}

Supplement: This means a customer can only order one type of mask in one ordering. But he can make multiple orders if he want more than one mask category.

quantity:

SQL feature: NOT NULL

Type: integer (positive)

Supplement: the number of masks purchased in this ordering

amount:

SQL feature: NOT NULL

Type: float

Supplement: the total cost of masks in this order (RMB)

customer:

SQL feature: NOT NULL, foreign key referencing customer(username)

Type: a string of 1-10 characters

employeeID:

SQL feature: NOT NULL, foreign key referencing representative(employeeID)

Type: integer

orderStatus:

SQL feature: NOT NULL

Type: a string of which domain is {"normal", "abnormal"}

Supplement: “normal” means the quantity is within the representative’s quota while
“abnormal” means the opposite

orderedTime:

SQL feature: NOT NULL

Type: DATETIME

Format: Y-m-d H:i:s

Supplement: the time when the customer submitted this order

(4) Entity4: request

This entity has many-to-one relationship with representative. To be specific, many requests can be by one representative. The purpose of adding this entity into database is to enable representatives to send quota requests to senior employees. To achieve required functionalities, a request has the following attributes: username, quantity, employeeID and requestStatus. “requestID” is used as primary key to uniquely identify each request record. “employeeID” are foreign keys that references representative(employeeID), to show who send this request. None of these attributes can be set to null to avoid incomplete request information. Following is details of these attributes.

requestID:

SQL feature: primary key for request, automatically incremented

Type: integer

quantity:

SQL feature: NOT NULL

Type: integer (positive)

Supplement: the number of masks requested

employeeID:

SQL feature: NOT NULL, foreign key referencing representative(employeeID)

Type: integer

orderStatus:

SQL feature: NOT NULL

Type: a string of which domain is {"queuing", "processed"}

Supplement: “queuing” means no quota has been given to the representative since

this request was sent. “requestStatus” will become “processed” when
manage gives quota (any number) to the representative.

(5) Entity5: manager

This entity has no relationship with other entities but has the privilege to view almost all data of other entities. There is no way to create this entity through the website but an existing manager account has been created in the database.

For a manager to log in, a manager has the following attributes: “username” and “pwd” where “username” is used as primary key to uniquely identify the manager account. None

of these attributes can be set to null otherwise there will be no way for the manager to log in. Following is details of these attributes.

username:

SQL feature: primary key for manager

Type: a string of 1-10 characters

pwd (password):

SQL feature: NOT NULL

Type: a string of 10-25 characters

Format: numbers, letters and underscores only

Supplement: “password” is reserved by SQL so “pwd” is used instead.

(6) General discussion

The relationship between orderings and users makes it possible for users to view and operate on orderings that are relevant to him/her. And entity “request” enables representatives to send quota requests and the manager can trace request sent by representatives.

An ordering is considered as sold if 24 has elapsed since it was made and it can not be deleted any more. Normal orderings sold will deduct representatives quota, while abnormal orderings will not reduce the representative's quota. Instead, manager will be informed of these abnormalities happened in the last 24h and it is manager's responsibility to fetch masks from the factory.

d. Test Walk-through

(1) Customer

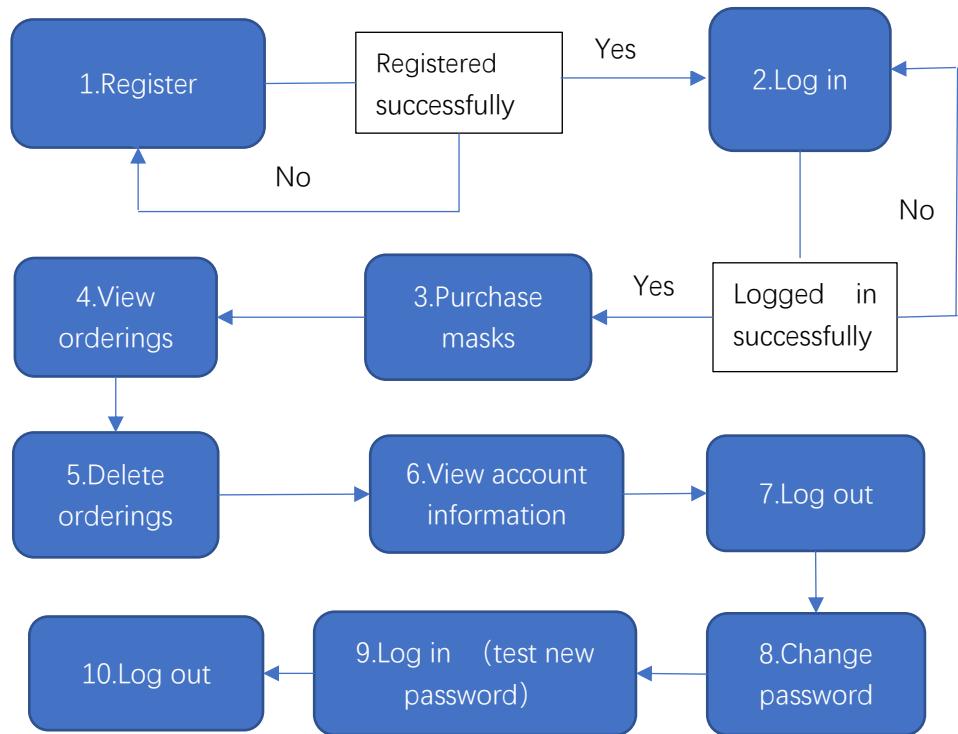


Figure 1. customer flow chart

1. Register

At home page, click on “Register” and go to register page.

The screenshot shows the login interface for the Woolin Auto face mask Sales Management System. At the top, there is a logo for "W & A" and navigation links for "Home page", "Register", and "Change password". A yellow arrow points to the "Register" link. Below the header, the title "Woolin Auto face mask Sales Management System" is displayed. The main form is titled "Log in" and contains the following fields:

- Select your user type first:
 - Customer
 - Sales representative
 - Manager
- User name:
- Password:
-

At the bottom page, you can return to home page by clicking on the following link at the bottom.



Return to register page and choose user type: customer

A screenshot of the "Woolin Auto face mask Sales Management System". The header includes the logo "W & A" and navigation links for "Home page", "Register", and "Change password". Below the header is the title "Woolin Auto face mask Sales Management System". The main content is a "Register" form. It starts with a note "Select your user type first:" followed by two links: "Customer" and "Sales representative". There are four input fields: "Enter your user name (no more than 10 characters)", "Enter your password (10-25 characters) Password can only contain numbers, letters and underscores.", "Enter your password again:", and "Enter your name:". A yellow arrow points from the text "Select your user type first:" to the "Customer" link.

Try enter Invalid_username1 ("toolongusername") in text box for user name. And only 10 characters can be entered because 10 characters is the max length for user name.



Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Now, enter a valid user name Valid_username1 ("Customer1").



Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Try enter an invalid password Invalid_pwd1 ("abcdefghijklmnopqrstuvwxyz") twice. Only 25 characters can be entered because 25 characters is the max length for password.

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :



Try enter Invalid_pwd2 = "testpwd@123" twice and the page will alert you because password contain only letters, numbers and underscores.

cslinux.nottingham.edu.cn 显示

Password can only contain numbers, letters and underscores.
Enter again

Select you
[Customer](#)
[Sales repr](#)

Enter your user name (no more than 10 characters):

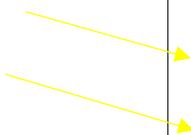
Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:



Try enter Invalid_pwd3 ("tooshort") twice and the page will alert you because password has at least 10 characters.

cslinux.nottingham.edu.cn 显示
Password is between 10 and 25 characters.
Enter again.

确定

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Valid_pwd1("validpassword") for the first box and Valid_pwd2 ("validpassword2") for the second. You will be alerted that two passwords have to be identical.

cslinux.nottingham.edu.cn 显示
The two passwords are not the same.

确定

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter Valid_pwd1("validpassword") twice and continue.

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

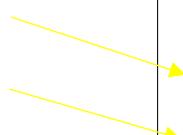
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:



Try enter Invalid_name1("Shuxiang Hu1") and the page will alert you that a name should contain valid first name and last name, separated by space.

cslinux.nottingham.edu.cn 显示
The name is not in correct form.
The correct form is: "Lastname Firstname"

确定

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :

Enter Valid_name("Shuxiang Hu") and continue.

Register

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Try enter Invalid_passportID("EF89&04") and the page will alert you and tell you

cslinux.nottingham.edu.cn 显示
Wrong ID format.
Passport ID should be a string of letters and numbers.

确定

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter Valid_passportID ("EF8904") and continue.

Register

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Try enter Invalid_tel ("1505200aabc"), you will be alerted that telephone number should be a string of numbers.

The screenshot shows a user login interface. At the top, there is an error message box with a blue border and rounded corners. Inside the box, the text "cslinux.nottingham.edu.cn 显示" is at the top, followed by "Wrong telephone number." and "Telephone number should be a string of numbers." at the bottom right. A blue rectangular button labeled "确定" (Confirm) is located at the bottom right of the message box. Below the message box, the form fields are displayed:

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

A yellow arrow points from the text "Enter Valid_tel ("15052006166") and continue." to the telephone number input field.

Enter Valid_tel ("15052006166") and continue.

Register

Select your user type first:

Customer

Sales representative

Enter your user name (no more than 10 characters):

Customer1

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Enter your name : Shuxiang Hu

Enter your passport ID: EF8904

Enter your telephone number: 15052006166

Try enter Invalid_email1 ("shysh1") and Invalid_email2 ("shysh1nottingham.edu.cn") in sequence. The page will alert you that the correct format for e-mail address is username@suffix.

cslinux.nottingham.edu.cn 显示
The e-mail address is in invalid form.
The correct form is: username@suffix

确定

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :

cslinux.nottingham.edu.cn 显示
The e-mail address is in invalid form.
The correct form is: username@suffix

确定

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :

Enter Valid_email ("shysh1@nottingham.edu.cn") and continue.

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :

Choose region as "China"

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :

Choose your region:

If you did not fix invalid inputs in previous steps, for example, still using Invalid_email1 ("shysh1") and click on "Register" button, you will be alerted again and a page will

pop up to inform you this error. You can click on try again to return to register page.

cslinux.nottingham.edu.cn 显示

The e-mail address is in invalid form.
The correct form is: username@suffix

确定



Wolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Wolin Auto face mask Sales Management System

User name, passportID, e-mail or tel already occupied or invalid inputs.
Registration failed.

[Try again](#)

Again, enter Valid_username1 ("Customer1"), Valid_pwd1("validpassword") , Valid_name ("Shuxiang Hu"), Valid_passportID ("EF8904"), Valid_tel ("15052006166") and Valid_email ("shysh1@nottingham.edu.cn"). Click "Register" button and you will be guided to home page because you have registered successfully.

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Customer1

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Enter your name : Shuxiang Hu

Enter your passport ID: EF8904

Enter your telephone number: 15052006166

Enter your e-mail address : shysh1@nottingham.edu.cn

Choose your region: China ▾

Register

Already registered? [Click to log in.](#)

W & A

Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

Log in

Select your user type first.

- Customer
- Sales representative
- Manager

User name:

Password:

Log in

Now click "Register" and return to register page. Enter data in last step and register

again. You will be guided to page informing you that the registration failed. This is because user name, passport ID, telephone number and e-mail address is unique for each customer and cannot be shared.

W & A
Wolin Auto

Home page	Register	Change password
---------------------------	--------------------------	---------------------------------

Wolin Auto face mask Sales Management System

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your passport ID:

Enter your telephone number:

Enter your e-mail address :

Choose your region: ▾

W & A

Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

User name, passportID, e-mail or tel already occupied or invalid inputs.

Registration failed.

[Try again](#)

2. Log in

At home page, enter Valid_username1 ("Customer1") and Valid_pwd2 ("validpassword2") to log in. The page will alert "Invalid log in" because the password is wrong.

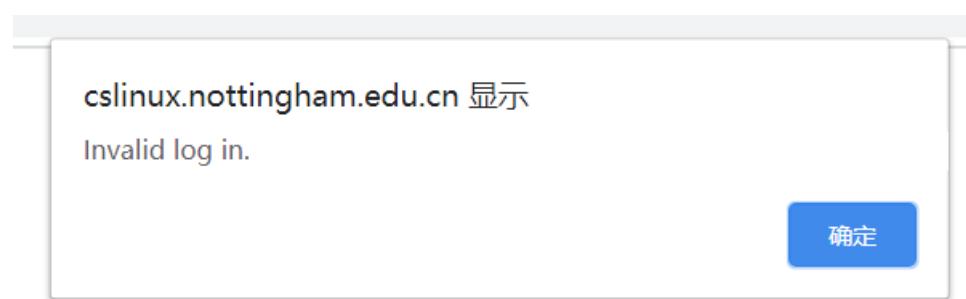
Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:



Enter Valid_username1 ("Customer1") and Valid_pwd1 ("validpassword") to log in.
You will be guided to the order page.

Log in

Select your user type first.

- Customer
- Sales representative
- Manager

User name:

Password:

W & A

Woolin Auto

Order	My orderings	Account	Logout
-----------------------	------------------------------	-------------------------	------------------------

Woolin Auto face mask Sales Management System

Purchase your item

Select mask type:

N95 respirator



surgical mask



N95 surgical respirator



3. Purchase masks

Choose a mask type, number of masks and select a representative who has enough quota. Then click on "Confirm purchase". Then the system will tell you that your order has been added successfully. For example:

Purchase your item

Select mask type:

N95 respirator



surgical mask



N95 surgical respirator



Quantity:

Appoint a representative:

Total:

确定

cslinux.nottingham.edu.cn 显示

Order added successfully.

4. View orderings and 5. Delete orderings

Then you will be guided to “Your orders” page. You can view information about all the orderings you have made so far. You can contact your representative using the given telephone number. A “normal” “orderStatus” means that the quantity is within the quota of the representative at the time the ordering was created. “abnormal” means the opposite. An ordering is deletable if less than 24h has passed since it was created. (Orderings are inserted on server side for test purpose.)

W & A

Wallin Auto

Order

My orderings

Account

Logout

Your orders

Enter the order id you want to delete(a deletable one).

Confirm your delete:

order ID	mask type	quantity	amount	representative	representative contact	orderStatus	time	if deletable
2	surgical mask	7	10.5	king	13466896110	normal	2020-05-21 06:14:13	Not deletable
4	N95 respirator	50	200	king	13466896110	abnormal	2020-05-27 09:23:30	deletable
8	surgical mask	4	6	banana	13672576110	normal	2020-05-28 07:33:36	deletable

Try enter "1" to delete an ordering ID that does not exist. This error will be reported.

Your orders

Enter the order id you want to delete(a deletable one). 1

Confirm your delete:

cslinux.nottingham.edu.cn 显示

order not found

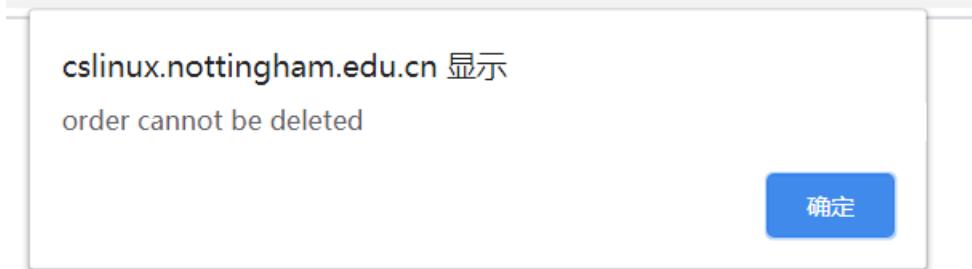
确定

Try enter "2" to delete an undeletable ordering.

Your orders

Enter the order id you want to delete(a deletable one). 2

Confirm your delete:



Enter “4” to delete a deletable ordering. The system will inform you that the ordering has been deleted successfully and you can see it has been removed from your table

W & A

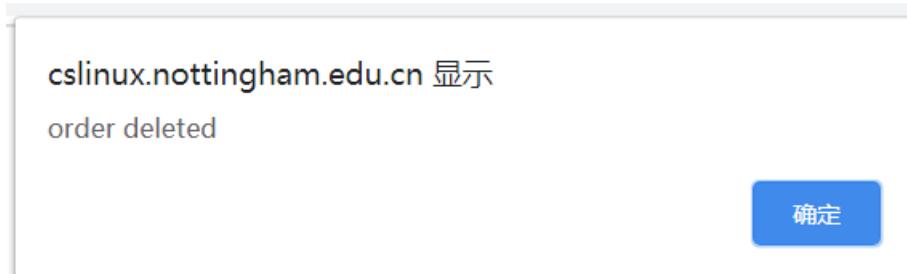
Order My orderings Account Logout

Your orders

Enter the order id you want to delete(a deletable one). 4

Confirm your delete:

order ID	mask type	quantity	amount	representative	representative contact	orderStatus	time	if deletable
2	surgical mask	7	10.5	king	13466896110	normal	2020-05-21 06:14:13	Not deletable
4	N95 respirator	50	200	king	13466896110	abnormal	2020-05-27 09:23:30	deletable
8	surgical mask	4	6	banana	13672576110	normal	2020-05-28 07:33:36	deletable



Your orders

Enter the order id you want to delete(a deletable one).
 Confirm your delete:

order ID	mask type	quantity	amount	representative	representative contact	orderStatus	time	if deletable
2	surgical mask	7	10.5	king	13466896110	normal	2020-05-21 06:14:13	Not deletable
8	surgical mask	4	6	banana	13672576110	normal	2020-05-28 07:33:36	deletable

6.View account information

Click on account to view your information.

W & A
Wollin Auto

Order	My orderings	Account	Logout
-------	--------------	---------	--------

Your orders

Enter the order id you want to delete(a deletable one).
 Confirm your delete:

order ID	mask type	quantity	amount	representative	representative contact	orderStatus	time	if deletable
2	surgical mask	7	10.5	king	13466896110	normal	2020-05-21 06:14:13	Not deletable
8	surgical mask	4	6	banana	13672576110	normal	2020-05-28 07:33:36	deletable



Woolin Auto

Order	My orderings	Account	Logout
-------	--------------	---------	--------

Woolin Auto face mask Sales Management System

Account

User name: Customer1
Real name: Shuxiang Hu
Passport ID: EF8904
Tel: 15052006166
E-mail address: shysh1@nottingham.edu.cn
Region: China

7.Log out

Click on “Log out” to log out and return to home page.



Woolin Auto

Order	My orderings	Account	Logout
-------	--------------	---------	--------

Woolin Auto face mask Sales Management System

Account

User name: Customer1
Real name: Shuxiang Hu
Passport ID: EF8904
Tel: 15052006166
E-mail address: shysh1@nottingham.edu.cn
Region: China



Woolin Auto

Home page	Register	Change password
---------------------------	--------------------------	---------------------------------

Woolin Auto face mask Sales Management System

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:

8.Change password

Click on “Change password” to change your password



Woolin Auto

Home page	Register	Change password
---------------------------	--------------------------	---------------------------------

Select your user type as customer

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your user name "Customer1".

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter wrong old password Valid_pwd2 ("validpassword2").

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd4 ("thispasswordexceeds25characters") twice and only 25 characters can be entered because that's the max length for password.

Change password

Select your user type first:

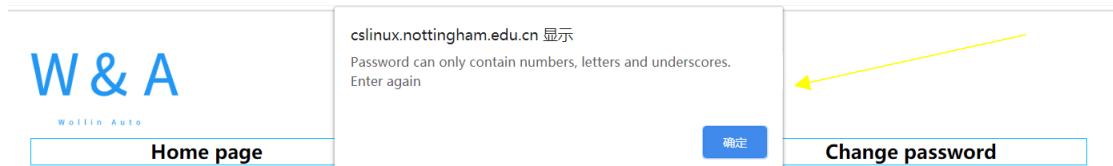
Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd5 ("testpwd##1234") twice and you will be alerted that passwords contains only numbers, letter and underscores.



Woolin Auto face mask Sales Management System

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd3 ("tooshort") twice and you will be alerted that passwords should be between 10 and 25 characters.

The screenshot shows a web interface for 'Woolin Auto' with a navigation bar including 'Home page', 'Register', and 'Change password'. A modal dialog box titled 'Change password' is open. Inside the dialog, there are fields for user type ('Customer'), user name ('Customer1'), old password ('*****'), new password ('*****'), and confirmation ('*****'). A yellow arrow points from the text 'Enter your password again:' to the second password field. Above the dialog, a tooltip message reads: 'cslinux.nottingham.edu.cn 显示 Password is between 10 and 25 characters. Enter again.' with a '确定' (Confirm) button.

Woolin Auto face mask Sales Management System

Change password

Select your user type first:
Customer

Enter your user name :
Customer1

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again: *****

Confirm

Try enter Valid_pwd3 ("anewpassword") and Valid_pwd4 ("anothernewpassword") for two boxes. Then you will be alerted that two new passwords are not the same.

W & A
Wolin Auto

cslinux.nottingham.edu.cn 显示
The two password are not the same.

确定

Home page Register Change password

Wolin Auto face mask Sales Management System

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:



Try to click "Confirm" button to submit and you'll be alerted again. Then you will be guide to a new page informing that your attempt to change password has failed.

Wolin Auto face mask Sales Management System

Change password

Select your user type first:

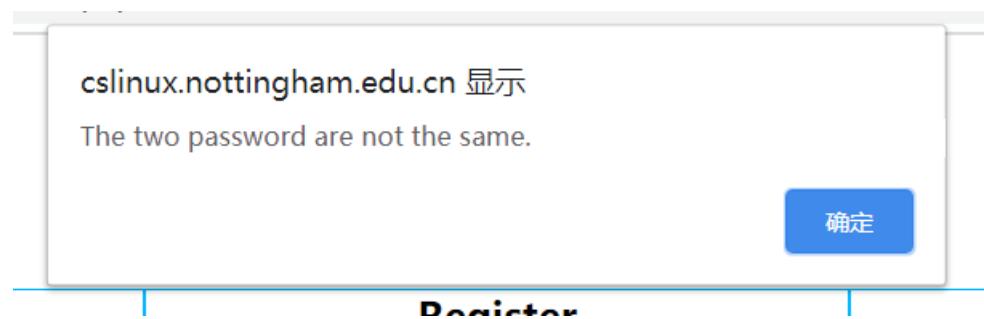
Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:





W & A

Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

Your new password is invalid. Change password failed.

[Try again](#)

[点击固定](#)

Click “Try again” and return to change password page.

Your new password is invalid. Change password failed.

[Try again](#)

Woolin Auto face mask Sales Management System

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter "Customer1", "validpassword2" and Valid_pwd3 ("anewpassword") twice and click "Confirm" and you will be alerted that your user name does not match old password.

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

cslinux.nottingham.edu.cn 显示
User name does not match password.

确定

Enter "Customer1", "validpassword" and Valid_pwd3 ("anewpassword") twice and click "Confirm" and you will be alerted that your password has been reset successfully.

Change password

Select your user type first:

Customer ▾

Enter your user name :

Customer1

Enter your old password:

.....

Enter your new password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Confirm

cslinux.nottingham.edu.cn 显示
Password changed successfully.

确定

9.Log in (test new password)

At home page, enter "Customer1" and "anewpassword" and click "Log In".

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:

You'll be guided to order page, which means the new password works.

10. Log out

Click log out and this walk-through ends.



Order	My orderings	Account	Logout
-------	--------------	---------	--------

Woolin Auto face mask Sales Management System

Purchase your item

Select mask type:

N95 respirator


surgical mask


(2) Sales representative

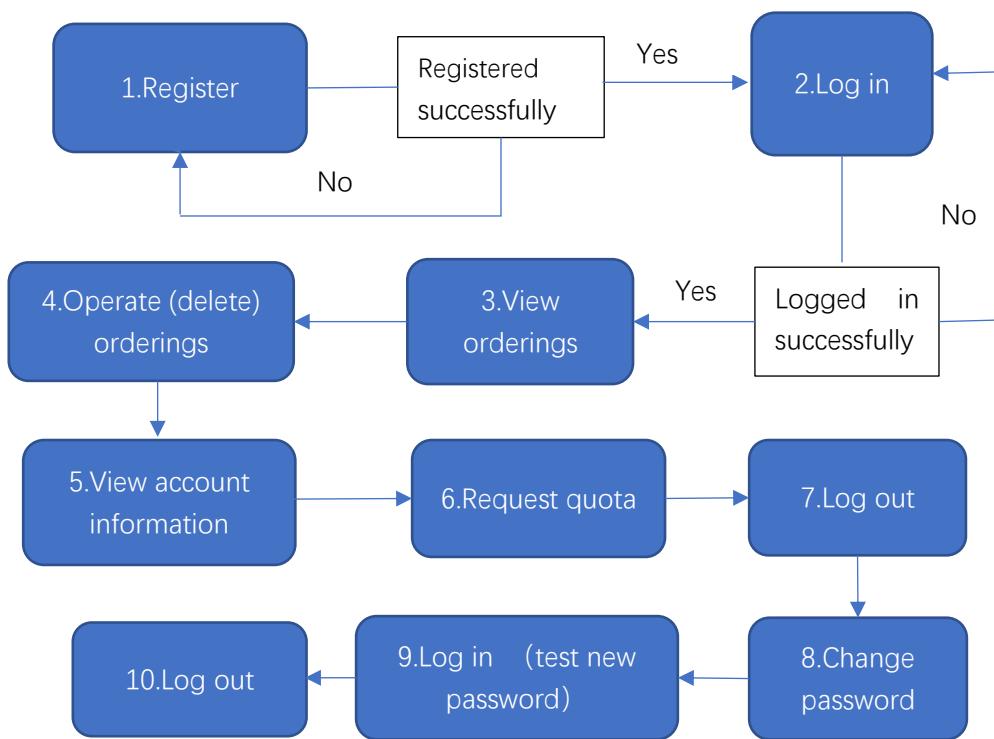


Figure 2. representative flow chart

1.Register

At home page, click on “Register” and go to register page.

Woolin Auto

Home page Register Change password

Woolin Auto face mask Sales Management System

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:

At the bottom page, you can return to home page by clicking on the following link at the bottom.



Return to register page and choose user type: representative. This guides you to the register page of sales representatives.

Woolin Auto face mask Sales Management System

The screenshot shows a "Register" page. At the top, it says "Select your user type first:" followed by two options: "Customer" and "Sales representative". Below that, it says "Enter your user name (no more than 10 characters):" with an input field. Then, it says "Enter your password (10-25 characters):" with an input field, followed by the note "Password can only contain numbers, letters and underscores.". Below that, it says "Enter your password again:" with an input field. Then, it says "Enter your name :" with an input field. At the bottom, there is a "Forgot your password or ID?" link. A yellow arrow points from the left towards the "Customer" option.

Try enter Invalid_username2 ("thisistoolong") in text box for user name. And only 10 characters can be entered because 10 characters is the max length for user name.

Woolin Auto face mask Sales Management System

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Now, enter a valid user name Valid_username2 ("Rep1").

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Try enter an invalid password Invalid_pwd4 ("thispasswordexceeds25characters") twice. Only 25 characters can be entered because 25 characters is the max length for password.

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd5 ="testpwd##1234" twice and the page will alert you because password contain only letters, numbers and underscores.

The screenshot shows a registration form on a page titled "register.php". A modal dialog box is displayed, indicating that the password can only contain numbers, letters, and underscores. The user has entered "Rep1" into the first password field and "....." into the second password field. The modal contains a "确定" (Confirm) button.

cslinux.nottingham.edu.cn 显示
Password can only contain numbers, letters and underscores.
Enter again

Select you
Customer
Sales representative

确定

Enter your user name (no more than 10 characters):
Rep1

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.
.....

Enter your password again:

Try enter Invalid_pwd3 ("tooshort") twice and the page will alert you because password has at least 10 characters.

The screenshot shows a registration form on a page titled "register.php". A modal dialog box is displayed, indicating that the password must be between 10 and 25 characters. The user has entered "Rep1" into the first password field and "....." into the second password field. The modal contains a "确定" (Confirm) button. Three yellow arrows point from the text "Enter your password again:" to the modal window.

cslinux.nottingham.edu.cn 显示
Password is between 10 and 25 characters.
Enter again.

确定

Select you
Customer
Sales representative

Enter your user name (no more than 10 characters):
Rep1

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.
.....

Enter your password again:

Try enter Valid_pwd1("validpassword") for the first box and Valid_pwd2 ("validpassword2") for the second. You will be alerted that two passwords have to be identical.

cslinux.nottingham.edu.cn 显示
The two passwords are not the same.

Select your user type first:
Customer
Sales representative

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

确定

Enter Valid_pwd1("validpassword") twice and continue.

Register

Select your user type first:
Customer
Sales representative

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_name2("Eli123Abe") and the page will alert you that a name should contain valid first name and last name, separated by space.

cslinux.nottingham.edu.cn 显示
The name is not in correct form.
The correct form is: "Lastname Firstname"

确定

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :



Enter Valid_name2("Eli Abe") and continue.

Register

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :



Try enter Invalid_tel2 ("a50c24324357 "), you will be alerted that telephone number should be a string of numbers.

cslinux.nottingham.edu.cn 显示
Wrong telephone number.
Telephone number should be a string of numbers.

确定

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your telephone number:

Enter Valid_tel2 ("15052006167") and continue.

Register

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your telephone number:

Try enter Invalid_email3 ("2zhysh") and Invalid_email4 ("2zhshynottingham.edu.cn") in sequence. The page will alert you that the correct format for e-mail address is username@suffix.

cslinux.nottingham.edu.cn 显示

The e-mail address is in invalid form.
The correct form is: username@suffix

确定

Select your user type first:

Customer

Sales representative

Enter your user name (no more than 10 characters):

Rep1

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Enter your name : Eli Abe

Enter your telephone number: 15052006167

Enter your e-mail address : 2zhysh

cslinux.nottingham.edu.cn 显示
The e-mail address is in invalid form.
The correct form is: username@suffix

[确定](#)

Select your user type first:
[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your telephone number:

Enter your e-mail address :

Enter Valid_email2 ("2zhsh@nottingham.edu.cn") and continue.

Enter your password again:

Enter your name :

Enter your telephone number:

Enter your e-mail address :

Choose region as "China"

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your telephone number:

Enter your e-mail address :

Choose your region: ▾

Already registered? [Click to log in.](#)

If you did not fix invalid inputs in previous steps, for example, still using Invalid_tel2 ("a50c24324357") and click on "Register" button, you will be alerted again and a page will pop up to inform you this error. You can click on try again to return to register page.

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Rep1

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Enter your name : Eli Abe

Enter your telephone number: a50c24324357

Enter your e-mail address : zhysh@nottingham.edu.cn

Choose your region: China ▾

Register

cslinux.nottingham.edu.cn 显示

Wrong telephone number.

Telephone number should be a string of numbers.

确定

W & A

Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

User name, passportID, e-mail or tel already occupied or invalid inputs.
Registration failed.

[Try again](#)

Again, enter Valid_username2 ("Rep1"), Valid_pwd1("validpassword") ,Valid_name2 ("EliAbe"), Valid_tel2("15052006167") and Valid_email2 ("2zhys@nottingham.edu.cn"). Click "Register" button and you will be guided to home page because you have registered successfully.

Select your user type first:

[Customer](#)
[Sales representative](#)

Enter your user name (no more than 10 characters):

Enter your password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your name :

Enter your telephone number:

Enter your e-mail address :

Choose your region: ▾

Already registered? [Click to log in.](#)

W & A

Wolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Wolin Auto face mask Sales Management System

Log in

Select your user type first.

- Customer
- Sales representative
- Manager

User name:

Password:

Now click “Register” and choose “Sales represenative”and return to register page. Enter data in last step and register again. You will be guided to page informing you that the registration failed. This is because user name, telephone number and e-mail addresses are unique for each customer and cannot be shared.

W & A

Wolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Wolin Auto face mask Sales Management System

Log in

Select your user type first.

- Customer
- Sales representative
- Manager

User name:

Password:

Woolin Auto face mask Sales Management System

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Register

Select your user type first:

[Customer](#)

[Sales representative](#)

Enter your user name (no more than 10 characters):

Rep1

Enter your password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Enter your name : Eli Abe

Enter your telephone number: 15052006167

Enter your e-mail address : 2zhys@nottingham.edu.cn

Choose your region: China ▾

Register

Woolin Auto face mask Sales Management System

User name, passportID, e-mail or tel already occupied or invalid inputs.

Registration failed.

[Try again](#)

2. Log in

At home page, choose user type as representative and enter Valid_username2 ("Rep1") and Valid_pwd2 ("validpassword2") to log in. The page will alert "Invalid log in" because the password is wrong.

Woolin Auto face mask Sales Management System

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:



Choose user type as representative and enter Valid_username2 ("Rep1") and Valid_pwd1 ("validpassword") to log in.

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name: Rep1

Password:|

Log in

3. View orderings

You will be guided to the order page. Orders are created at the server side for test purpose. Information of all orderings that appointed to you are displayed in a table.

Your order

Enter the order id you want to delete(a deletable one).

Confirm your delete:

order ID	mask type	quantity	amount(¥)	customer	customer contact	orderStatus	time	click to delete
9	N95 surgical respirator	4	63.6	juice	1406656462	normal	2020-05-27 07:19:24	Not deletable
10	N95 respirator	10	40	gran	1208904563	abnormal	2020-05-26 13:32:26	Not deletable
11	surgical mask	1	1.5	deer	15323546743	abnormal	2020-05-28 09:24:29	deletable

3. Operate (delete) orderings

Enter "1" and click delete. You'll be alerted that this order is not found.

Enter the order id you want to delete(a deletable one). 1

Confirm your delete:

cslinux.nottingham.edu.cn 显示

order not found

确定

Enter "9" and you will be alerted that this order is not deletable.

Enter the order id you want to delete(a deletable one). 9

Confirm your delete:

cslinux.nottingham.edu.cn 显示

order cannot be deleted

确定

Enter “11” and delete. You'll be informed that this order has been deleted. It has been removed from the table.

Enter the order id you want to delete(a deletable one).

Confirm your delete:

cslinux.nottingham.edu.cn 显示

order deleted

确定

Enter the order id you want to delete(a deletable one).

Confirm your delete:

order ID	mask type	quantity	amount(¥)	customer	customer contact	orderStatus	time	click to delete
9	N95 surgical respirator	4	63.6	juice	1406656462	normal	2020-05-27 07:19:24	Not deletable
10	N95 respirator	10	40	gran	1208904563	abnormal	2020-05-26 13:32:26	Not deletable

5. View account information

Click “Account” to view your account information.

W & A

Woolin Auto

Order	Request Quota	Account	Logout
-------	---------------	---------	--------

Your order

Enter the order id you want to delete(a deletable one).
Confirm your delete:

order ID	mask type	quantity	amount(¥)	customer	customer contact	orderStatus	time	click to delete
9	N95 surgical respirator	4	63.6	juice	1406656462	normal	2020-05-27 07:19:24	Not deletable
10	N95 respirator	10	40	gran	1208904563	abnormal	2020-05-26 13:32:26	Not deletable

W & A

Woolin Auto

Order	Request Quota	Account	Logout
-------	---------------	---------	--------

Woolin Auto face mask Sales Management System

Account

EmployeeID: 17
User name: Rep1
Tel: 15052006167
Quota: 0
E-mail address: 2zhysh@nottingham.edu.cn
Region: China

6.Request quota

Your quota is zero as a newly-registered representative. You have to be approved by the manager and then you can have quota (A representative is approved when he/she receives quota from manager). Click "Request Quota".



Woolin Auto face mask Sales Management System

Choose the number of masks you would like to request, for example, 20. And click "request" button. Then you have to wait for the manager to give you quota.

Your request

Enter the number of masks: ←

Confirm your request: ←

7.Log out

Click "Log out" to log out.



Your request

Enter the number of masks: ←

Confirm your request: ←

8.Change password

Click on "Change password" to change your password



Select your user type as representative

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter your user name "Rep1".

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter wrong old password Valid_pwd2 ("validpassword2").

Change password

Select your user type first:

Enter your user name :

Enter your old password:

*

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd4 ("thispasswordexceeds25characters") twice and only 25 characters can be entered because that's the max length for password.

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd5 ("testpwd##1234") twice and you will be alerted that passwords contains only numbers, letter and underscores.



Wolin Auto face mask Sales Management System

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Try enter Invalid_pwd3 ("tooshort") twice and you will be alerted that passwords should be between 10 and 25 characters.

The screenshot shows a web application interface. At the top, there is a header with the logo "W & A" and the text "Wolin Auto". Below the header, there are navigation links: "Home page", "Register", and "Change password". A modal dialog box titled "Change password" is open. Inside the dialog, there are several input fields and error messages. The first error message says: "cslinux.nottingham.edu.cn 显示 Password is between 10 and 25 characters. Enter again." A blue button labeled "确定" (Confirm) is visible. The main content area of the dialog has a title "Woolin Auto face mask Sales Management System". The "Change password" form contains the following fields:

- Select your user type first:
- Enter your user name :
- Enter your old password:
- Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.
- Enter your password again:

Two yellow arrows point from the text "Try enter Invalid_pwd3 ("tooshort") twice and you will be alerted that passwords should be between 10 and 25 characters." to the two password input fields in the "Change password" dialog.

Try enter Valid_pwd3 ("anewpassword") and Valid_pwd4 ("anothernew password") for two boxes. Then you will be alerted that two new passwords are not the same.



cslinux.nottingham.edu.cn 显示

The two password are not the same.

确定

Home page

Register

Change password

Woolin Auto face mask Sales Management System

Change password

Select your user type first:

Representative ▾

Enter your user name :

Rep1

Enter your old password:

Enter your new password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Confirm

Try to click "Confirm" button to submit and you'll be alerted again. Then you will be guide to a new page informing that your attempt to change password has failed.

Change password

Select your user type first:

Representative ▾

Enter your user name :

Rep1

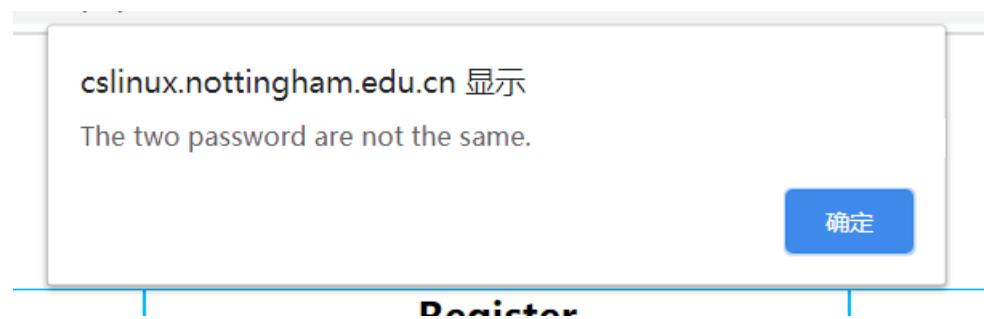
Enter your old password:

Enter your new password (10-25 characters):

Password can only contain numbers, letters and underscores.

Enter your password again:

Confirm



W & A

Woolin Auto

[Home page](#)

[Register](#)

[Change password](#)

Woolin Auto face mask Sales Management System

Your new password is invalid. Change password failed.

[Try again](#)

Click “Try again” and return to change password page.

→ Your new password is invalid. Change password failed.

[Try again](#)

Woolin Auto face mask Sales Management System

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

Enter "Rep1", "validpassword2" and Valid_pwd3 ("anewpassword") twice and click "Confirm" and you will be alerted that your user name does not match old password. (Don't forget user type!)

Change password

Select your user type first:

Enter your user name :

Enter your old password:

Enter your new password (10-25 characters):
Password can only contain numbers, letters and underscores.

Enter your password again:

cslinux.nottingham.edu.cn 显示
User name does not match password.

确定

Enter "Customer1", "validpassword" and Valid_pwd3 ("anewpassword") twice and click "Confirm" and you will be alerted that your password has been reset successfully. (Don't forget user type!)

Change password

Select your user type first:

Representative ▾

Enter your user name :

Rep1

Enter your old password:

.....

Enter your new password (10-25 characters):

Password can only contain numbers, letters and underscores.

.....

Enter your password again:

Confirm

cslinux.nottingham.edu.cn 显示

Password changed successfully.

确定

9.Log in (test new password)

At home page, select "Sales representative", enter "Rep1" and "anewpassword" and click "Log In".

Log in

Select your user type first.

Customer
 Sales representative
 Manager

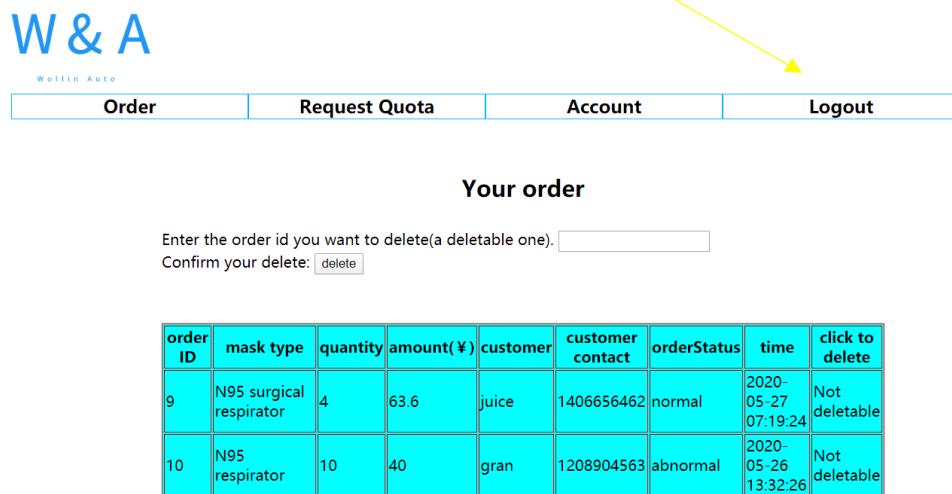
User name:

Password:

You'll be guided to order page, which means the new password works.

10. Log out

Click log out and this walk-through ends.



The screenshot shows the W & A web application interface. At the top, there is a logo 'W & A' and a subtext 'Wellin Auto'. Below the logo is a navigation bar with four items: 'Order', 'Request Quota', 'Account', and 'Logout'. A yellow arrow points from the 'Logout' button towards the bottom right of the page. The main content area is titled 'Your order'. It contains a form with fields 'Enter the order id you want to delete(a deletable one.)' and 'Confirm your delete: '. Below this is a table with the following data:

order ID	mask type	quantity	amount(¥)	customer	customer contact	orderStatus	time	click to delete
9	N95 surgical respirator	4	63.6	juice	1406656462	normal	2020-05-27 07:19:24	Not deletable
10	N95 respirator	10	40	gran	1208904563	abnormal	2020-05-26 13:32:26	Not deletable

(3) Manager

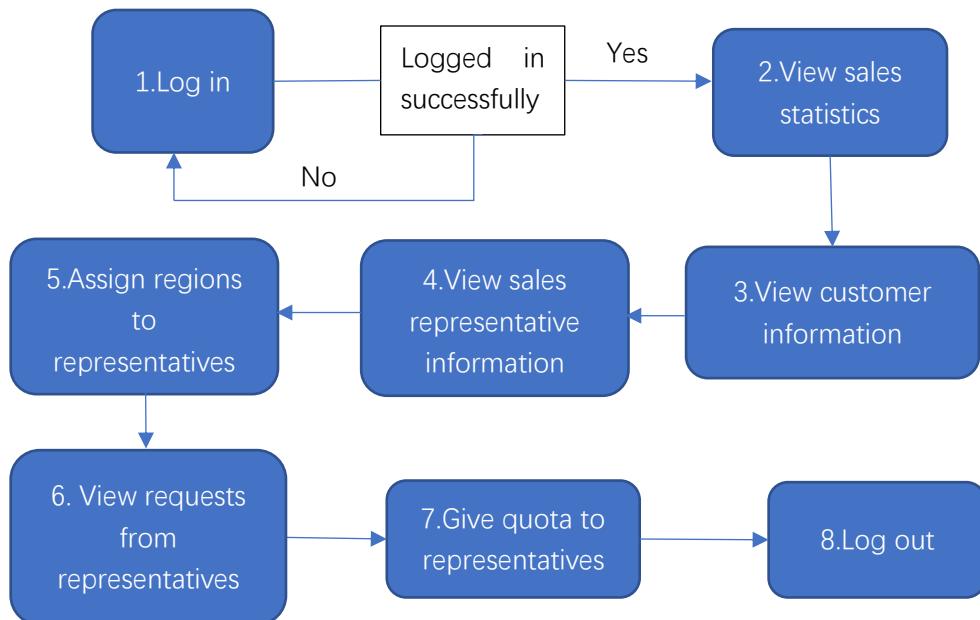


Figure 3. manager flow chart

1. Log in

An account for manager has been created.

User name: John

Password: john12345

At home page, choose user type as manger and enter "John" and Valid_pwd2 ("validpassword2") to log in. The page will alert "Invalid log in" because the password is wrong.

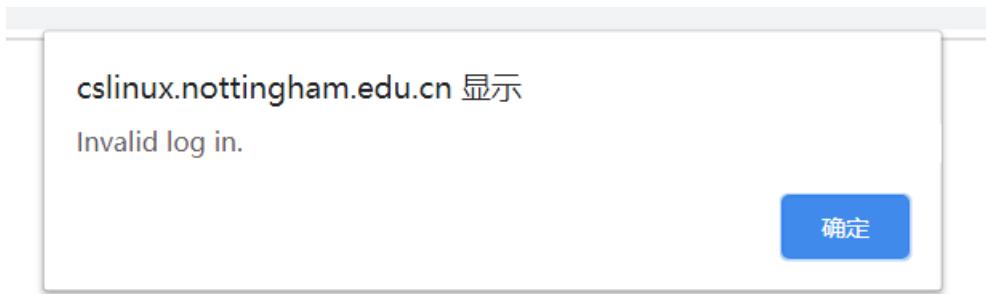
Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:



Choose user type as manager and enter "John" and "john12345" to log in.

Log in

Select your user type first.

Customer
 Sales representative
 Manager

User name:

Password:

2. View sales statistics

After log-in, you will be guided to statistics page. All the orderings that ordered 24h ago will be included and calculated because they can no more be deleted and should be considered as confirmed. Especially, the number of abnormalities that happened in the past 24h has been listed to help the manager to monitor this system.



Woolin Auto

Statistics	Customers	Representatives	Requests	Logout
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Woolin Auto face mask Sales Management System

General statistics	total number of masks sold	total revenues(¥)	masks sold in past four weeks	masks under ordering	expired abnormal orders in last 24h
without abnormality	12	75.6	12	1	1
with abnormality	22	115.6	22	0	

Regional statistics	China	Japan	America	British	Korean	Russia
total quantity without abnormality	12	0	0	0	0	0
total quantity with abnormality	22	0	0	0	0	0

3. View customer information.

Click "Customers" to view information of customers.



Woolin Auto

Statistics	Customers	Representatives	Requests	Logout
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You can view all customer accounts, including personal information and general information or their orderings. Only orderings made 24h ago will be added and in this table, both normal and abnormal orderings are calculated together.



Woolin Auto

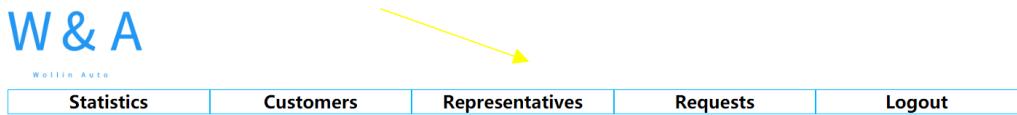
Statistics	Customers	Representatives	Requests	Logout
------------	-----------	-----------------	----------	--------

Woolin Auto face mask Sales Management System

Customer user name	Total number of orders	Total number of masks	Total amount(¥)	Average(masks per order)	Region	Tel
1	0	0	0	0	China	1
123	0	0	0	0	China	123
12345	0	0	0	0	China	15730246632
321	0	0	0	0	China	17246249063
5555	0	0	0	0	China	14578249732
Customer1	1	7	10.5	7	China	15052006166
deer	0	0	0	0	China	15323546743
gran	1	10	40	10	China	1208904563
grape	1	1	1.5	1	China	15078246432
juice	1	4	63.6	4	China	1406656462
new	0	0	0	0	China	15052006168
pig	0	0	0	0	China	1527426853
uzi	0	0	0	0	China	12374546443

4. View sales representative information.

Click on "Representatives".



You can see personal information and general informations of orderings each representative has processed so far. Only orderings made 24h ago will be added and in this table, both normal and abnormal orderings are calculated together.

employeeID	Representative user name	Total number of orders	Total number of masks	Total amount(¥)	Region	Tel
1	smdlx	0	0	0	China	15052006166
5	cat	0	0	0	British	15672886176
6	dog	0	0	0	Japan	14472966176
7	apple	0	0	0	China	13977486906
8	banana	0	0	0	China	13672576110
9	pear	0	0	0	Korean	15582876746
10	jack	1	1	1.5	America	14742716536
11	queen	0	0	0	China	13986485306
12	king	1	7	10.5	China	13466896110
17	Rep1	2	14	103.6	China	15052006167

4. Assign regions to representatives

Choose a employeeID and region. For example, "17" and Japan. Then click "Confirm assignment".



The region of the representative has been changed successfully.

10	jack	1	1	1.5	America	14742716536
11	queen	0	0	0	China	13986485306
12	king	1	7	10.5	China	13466896110
17	Rep1	2	14	103.6	Japan	15052006167



6. View requests from representatives.

Click on "Requests".

RequestID	Representative ID	Total number of masks required
1	17	20

You can see all the requests sent by representatives. The number of masks and requester are displayed in the table. Currently, there is only one request.

RequestID	Representative ID	Total number of masks required
1	17	20

Woolin Auto face mask Sales Management System

Choose a representative Assign quota:

Confirm assignment

RequestID	Representative ID	Total number of masks required
1	17	20

7. Give quota to representatives.

Choose a employeeID and number of masks, click on “Confirm assignment” and the quantity will be added to this representative's quota.

W & A

Woolin Auto

Statistics	Customers	Representatives	Requests	Logout
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Woolin Auto face mask Sales Management System

Choose a representative: 17 Assign quota: 20

RequestID	Representative ID	Total number of masks required
1	17	20



Requests from this representative will be removed after you gave him/her quota.

Woolin Auto face mask Sales Management System

Choose a representative: 1 Assign quota: 1

RequestID	Representative ID	Total number of masks required
1	17	20

8. Log out

Click “Log out” to log out. This is the end of walk-through.

W & A

Woolin Auto

Statistics	Customers	Representatives	Requests	Logout
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Woolin Auto face mask Sales Management System

Choose a representative: 1 Assign quota: 1

RequestID	Representative ID	Total number of masks required
1	17	20

Date used in the walk-through (stored in "test" folder):

```
Invalid_username1 = "toolongusername";
Invalid_username2 = "thisistoolong";
Invalid_pwd1 = "abcdefghijklmnopqrstuvwxyz";
Invalid_pwd2 = "testpwd@123";
Invalid_pwd3 = "tooshort";
Invalid_pwd4 = "thispasswordexceeds25characters";
Invalid_pwd5 = "testpwd##1234";
Invalid_name1 = "Shuxiang Hu1";
Invalid_name2 = "Eli123Abe";
Invalid_passportID = "EF89&04";
Invalid_tel = "1505200aabc";
Invalid_tel2 = "a50c24324357";
Invalid_email1 = "shysh1";
Invalid_email2 = "shysh1nottingham.edu.cn";
Invalid_email3 = "2zhys";
Invalid_email4 = "2zhysnottingham.edu.cn";

Valid_username1 = "Customer1";
Valid_username2 = "Rep1";
Valid_pwd1 = "validpassword";
Valid_pwd2 = "validpassword2";
Valid_pwd3 = "anewpassword";
Valid_pwd4 = "anothernewpassword";
Valid_name = "Shuxiang Hu";
Valid_name2 = "Eli Abe";
Valid_passportID = "EF8904";
Valid_tel = "15052006166";
Valid_tel2 = "15052006167";
Valid_email = "shysh1@nottingham.edu.cn";
Valid_email2 = "2zhys@nottingham.edu.cn";
```

e. External libraries

No external library used in the design.