

Product Differentiation

NetID: xs106

Name: Xin Shu

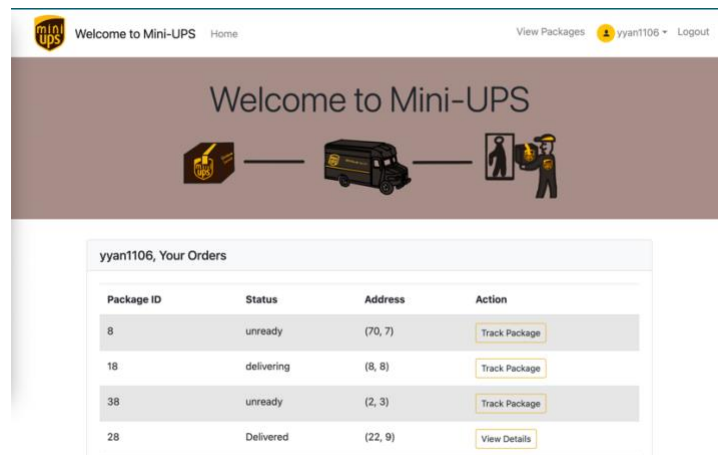
NetID: jx138

Name: Jinyan XU

A. Functionality:

Required functions like tracking packages, view user packages, view/edit user profile are implemented. Other additional functions like track the real-time location of the package, report issues for certain package, change address for packages are included.

For logged user, there is a view packages button at the homepage which will show all the packages related to this account. And it will lead the user to a list page.



For package still on unready, wait_pick, delivering, it allows user to track the package and see the current location while for delivered package, it allows user to see the details and allows user to report any issues.

Change destination (for unready, wait_pick package):

It allows user to change the delivered address of package which is not yet on delivering or delivered.



Package Information

Package ID	Status	Product Description	Item Amount	Delivery Address	Edit Address
8	unready	test*0 test*1 test*2 test*3	4	(70, 7)	<button>Change Address</button>

Current location



Change Delivery Address

x:

y:

Save

And then in the database, the package address will be updated.

Report issue (for delivered package):



Package Information

Package ID	Status	Product Description	Item Amount	Delivery Address	Report
28	delivered	test*0 test*1	2	(22, 9)	<button>Report issue</button>

Current location

By clicking the report issue button, it allows the user to report their issues and leave an email for contact. And an email notification will be sent to this email with the message saying their problems is being processed and handled.

The image shows a two-part interface. The top part is a form titled 'Report Issue/Problem' with a header banner that says 'Welcome to Mini-UPS' and features icons of a box, a truck, and a worker. The form has fields for 'Email:' and 'Issue:', a blue 'Submit' button, and a 'Return' button. The bottom part is a screenshot of an email notification. The email header says '[Mini-UPS] Your problem has been reported!' and is from '你自己' (Youself) dated '4月26日'. The body of the email says: 'Dear Customer, Your problem related to package which tracking_id is 28 has been successfully reported. Thank you for reaching out to us. We will get back to you as soon as possible. Best regards, The Mini-UPS Team'.

Email Notification:

There are two situations that the Mini-UPS will automatically send email notifications to users:

Firstly, when user reporting issues, they can leave their contact information and the system will send feedback as above. This operation is for both logged and unlogged users.

Secondly, when user change destination for one specific package under his/her account, system will display the success message below and automatically send notification through the email linked to this current user when registering. This operation can only be done by logged user and who is exactly the package owner.



Welcome to Mini-UPS



Address changed successfully, notification have been sent to your linked email



Change Delivery Address

X:

8

Y:

30

Save

Go back

[Mini-UPS] Your package delivered address has been changed!



你自己

收件人 你自己

下午 5:31

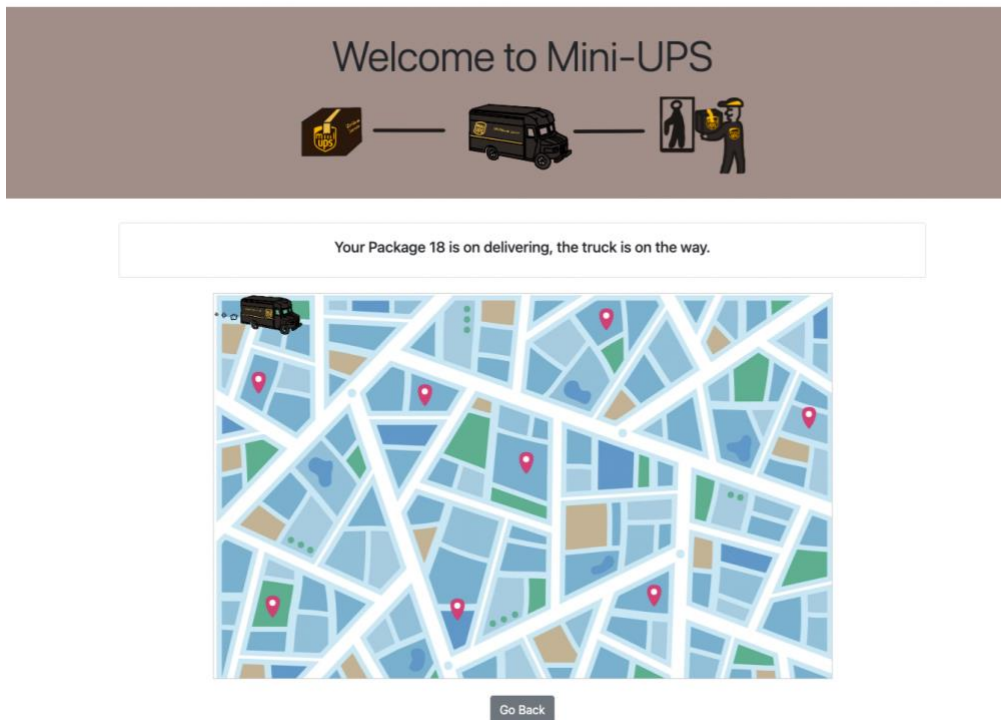
Dear Customer,

Your address for package with tracking_id 58 has been successfully changed to (8,30). Thank you for reaching out to us and try our service.

Best regards,
The Mini-UPS Team

Track package location:

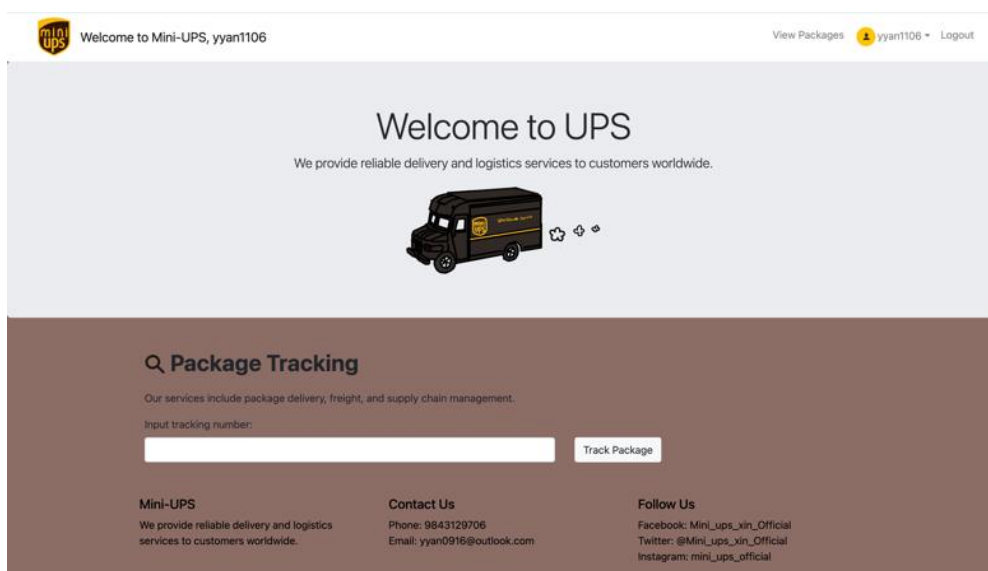
For undelivered package, click the current location button, it will trigger the real-time tracking of the package's location on a map. Tracking a package's location in real-time can be a valuable tool for users who want to stay informed about the status of their delivery and ensure a smooth delivery process.



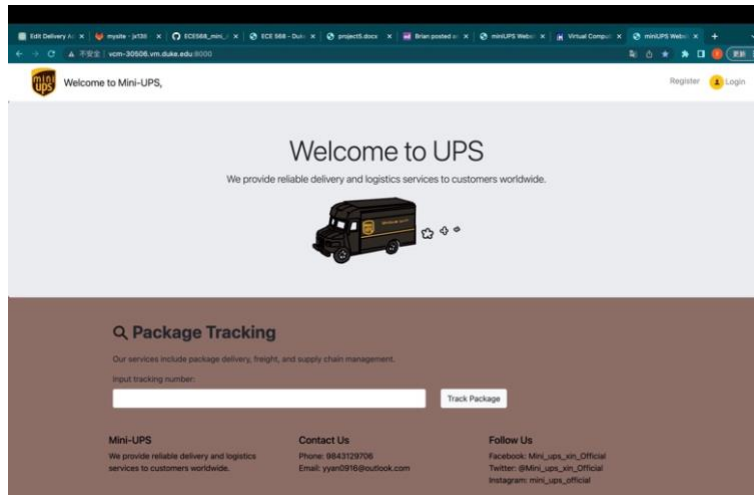
B. Security:

The permissions is limited for different roles and the corresponding User interfaces is different for logged and unlogged user are different.

Homepage for logged user.



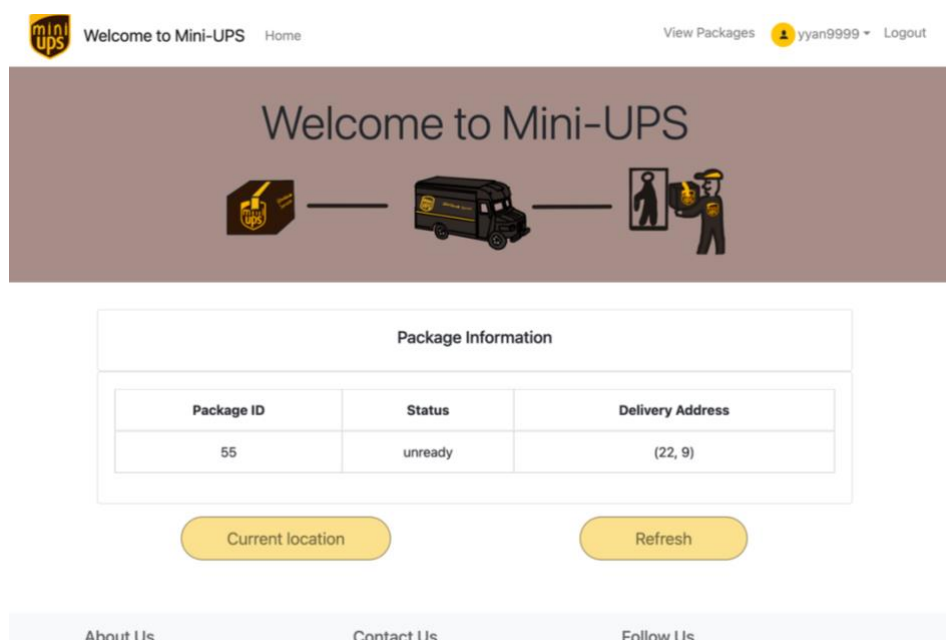
Homepage for unlogged user:



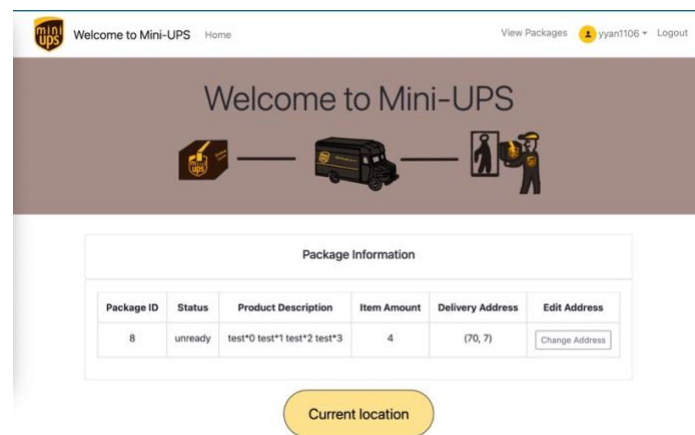
At the homepage, both logged and unlogged user can track a package by inputting the tracking number. For logged user, there is a view packages button at the homepage which will show all the packages related to this account and also some account information and edit account choice. While for unlogged, there is button for user to log in or register an account.

The permitted operations for authorized user and an unauthorized user vary. For instance, if an unauthorized user attempts to track a package using the tracking number, they will only be able to view the status and location of the package. However, in order to modify the address, the user will need to log in. This feature ensures that users who have not logged in still have access to certain fundamental function like tracking but are unable to perform further actions.

The display page below is the package detail for unlogged user or the current user is not the owner of the current package.



Only for logged user and the id of current logged user matches the package owner user id, then the system would show the change address button, item descriptions and amount in the package detail display page.

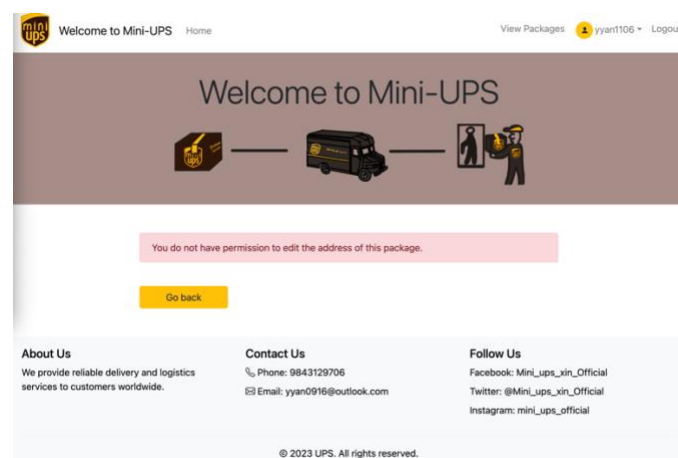


For example, if I logged as yyan1106 to see the detail of package 13, which is related to other account, I will not be able to change the address.

Unlogged users are not able to access certain pages to do operations. This different level of permissions allows fundamental functions for both logged and unlogged users but protect user account security and privacy.

This protection and confirmation of package owner and current account also added when you directly enter http://vcm-30506.vm.duke.edu:8000/change_dest/13/

If package owner and current account do not match, it will display a message as permission denial. By doing so, the system ensures the privacy and security of user data.



C. User Interacting Experience and User Flow

In our mini-UPS, good user interaction experience is enhanced by providing clear and simple instructions for tracking packages, view package list, offering easy access to desirable information, and clear user flow. For example, users should be able to easily track their packages by inputting a tracking number and seeing real-time updates on its status, which gives them a more direct view visually. They should also be able to quickly find information about shipping status and delivery times, as well as easily reporting problems and contact customer service for help.

Our website also employ good UI design for a mini-UPS would involve using impressive color scheme, smooth interacting experience, and intuitive iconography. The webpage is well-organized and visually appealing, with clear calls-to-action and intuitive navigation. Each page has a navbar which offers clear redirect button to homepage and a few basic functions like user account management, log in and log out.