

# Easy Delivery Tracking

---



*Kevin Biro, Yulun Wu, Zhao Ji Wang, Jin Ting Zhou, Yunfei Wang*

## Phase I - What are the problems with today's package delivery tracking system?

- Tracking packages from many different sites can be tiresome.
- The current tracking methods are flawed:
  - a. Ineffective tracking methods cause packages to arrive when no one is home.
  - b. Lack of photo information sometimes causes defective products to be delivered.



## Phase I - Proposed Solution

- Concentrate all packages in **ONE** mobile APP.
- **AUTOMATICALLY** track package(s) from added account(s).
- **MANUALLY** add or delete package(s) is **ALLOWED**.
- **LIVE** location during the delivery process on map.

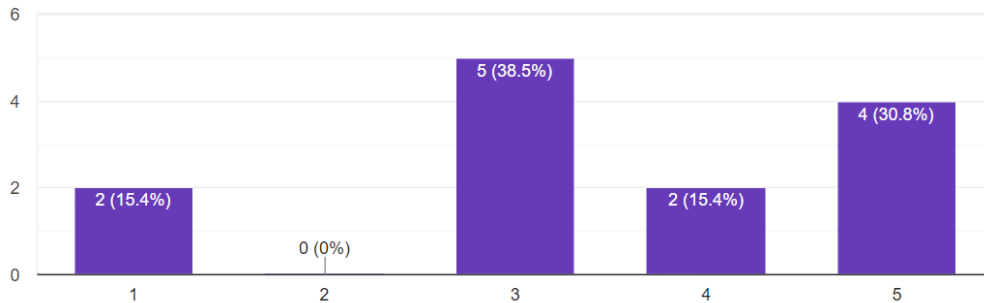


## Phase II - Data Gathering - Survey

- 13 participants

How often do packages arrive when nobody is home?

13 responses

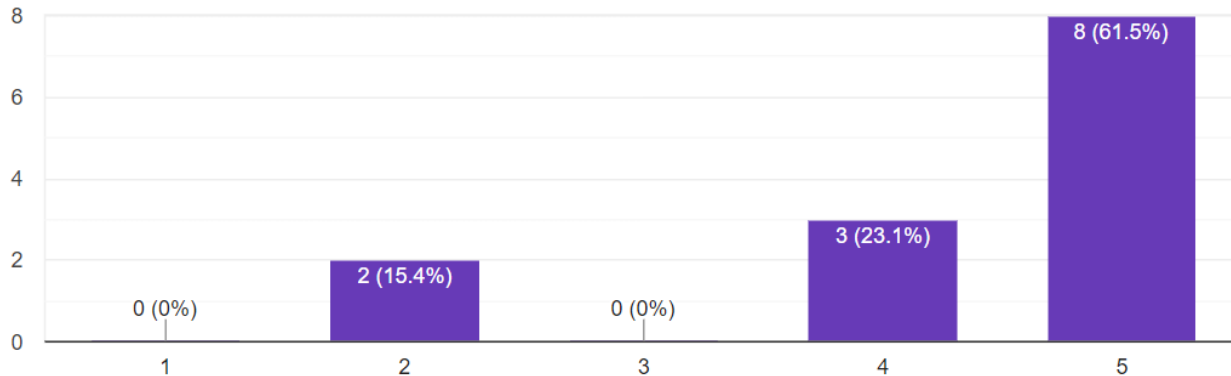


## Phase II - Data Gathering - Survey

Being able to locate the package on a map when it is being delivered.



13 responses

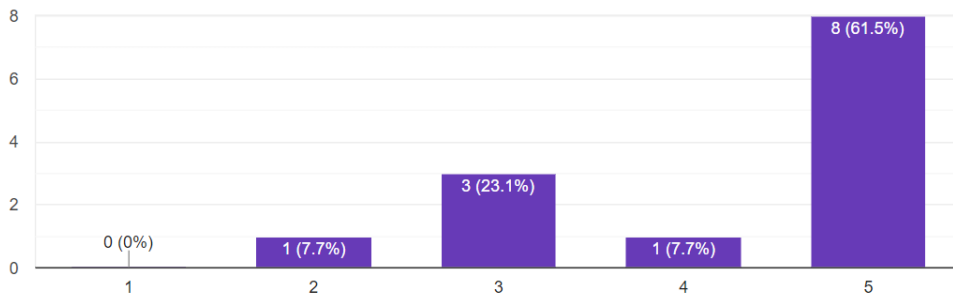


## Phase II - Data Gathering - Survey

How helpful do you think if a package/delivery tracking APP with the following features will be in improving your online shopping experience?

Being able to track all your packages purchased on different platforms(E.g. Amazon, newegg, etc.) by adding your account in one single APP.

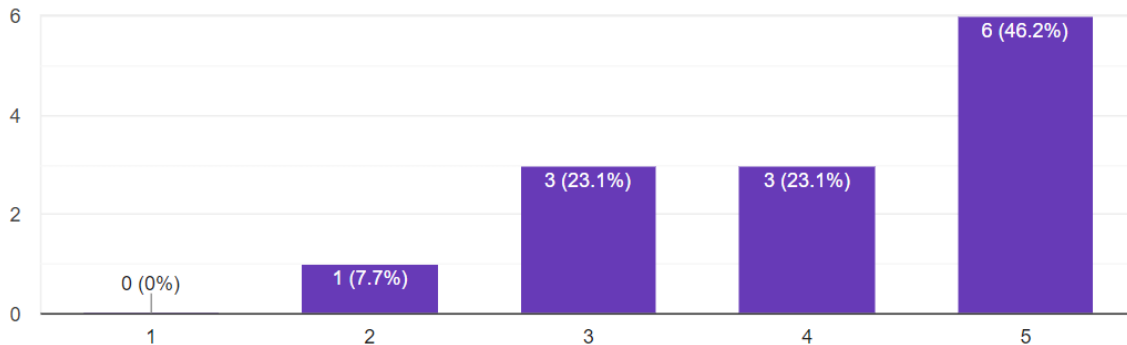
13 responses



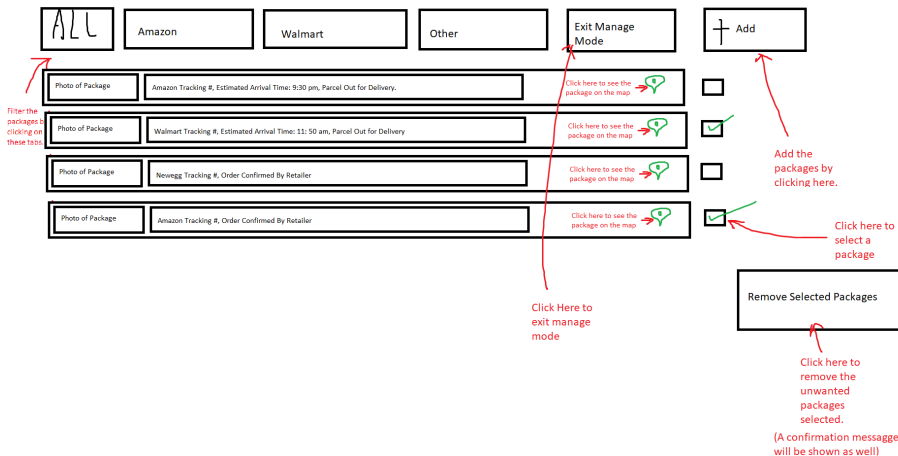
## Phase II - Data Gathering - Survey

Being able to sort on the packages you have regarding on their provenance (for example: Amazon, UGG, Walmart).

13 responses

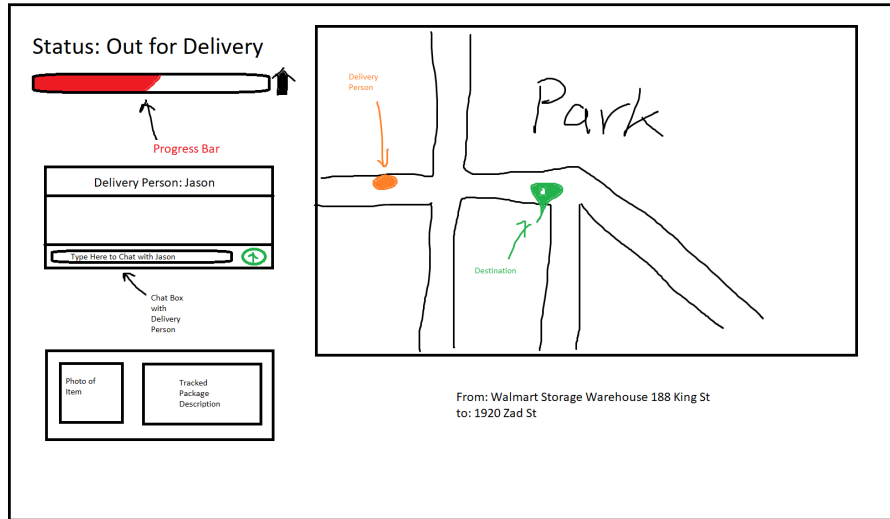


## Phase II - Data Gathering - Low-fidelity Prototype





## Phase II - Data Gathering - Low-fidelity Prototype





## Phase II - Data Gathering - Low-fidelity Prototype

Choose one  
of the  
following  
ways to  
track the  
packages



Please choose from the following:



Add an Online Shopping  
Account



I have the package's  
tracking number

Please Enter Your Package's Tracking Number:

Add Package

## Phase II - Data Gathering - Low-fidelity Prototype

Choose one  
of the  
following  
ways to  
track the  
packages



- Please choose from the following:
- ☒ Add an Online Shopping Account      ☐ I have the package's tracking number

Selected Company: Amazon (Click [here](#) to Change)

Please Sign in to The Package's Online Shopping Account:

Username:

Password:

Sign in

After you choose to change the company, the search box will pop up and you will be able to select again.





## Phase II - Data Gathering - Interview

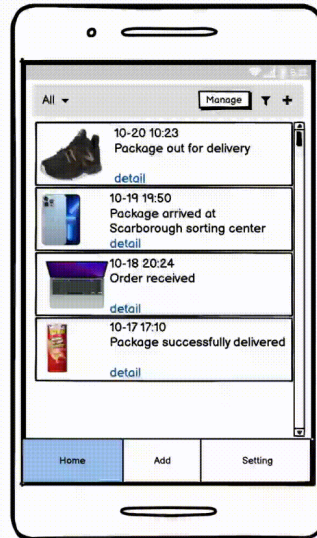
- 2 participants from the survey
- Given low-fidelity prototypes
- Ask for comments on given prototypes.



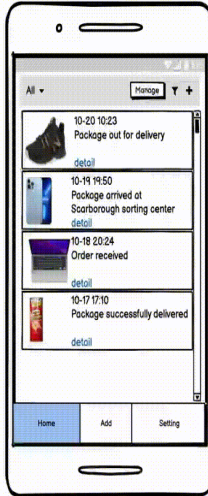
## Phase II - Data Gathering - Interview Result

- Good idea in general
- Filter for the different patterns instead of tabs
- The chat box is useless

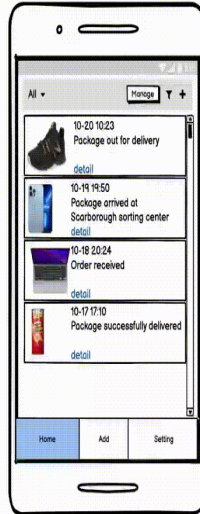
## Phase III - High Fidelity Prototype - Track



## Phase III - High Fidelity Prototype - Track (status)

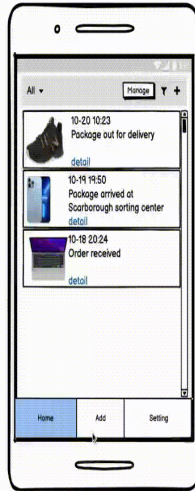


## Phase III - High Fidelity Prototype - Track (map)

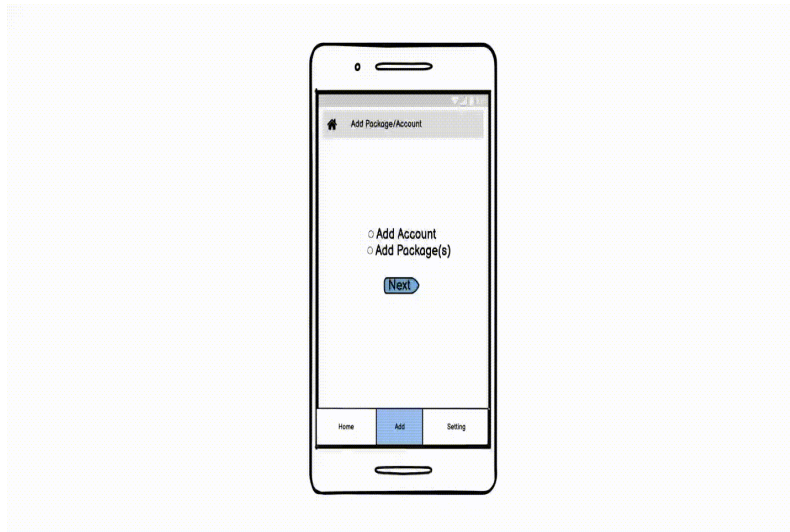




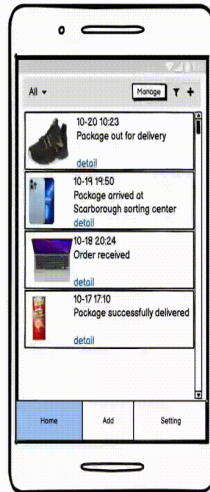
## Phase III - High Fidelity Prototype - Add - Package



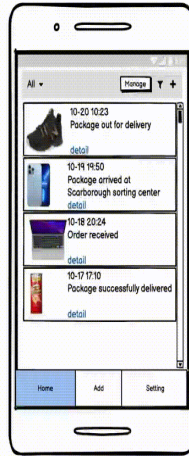
## Phase III - High Fidelity Prototype - Add - Account



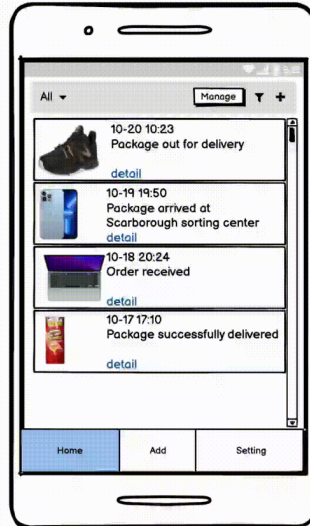
## Phase III - High Fidelity Prototype - Delete



## Phase III - High Fidelity Prototype - Delete



## Phase III - High Fidelity Prototype - Delete





## Phase IV - Usability Study

- 6 users, undergraduate students, various majors.
- Pre-study Questionnaires
- Observation of user tasks
- Post-study Questionnaires



## Phase IV - Our Results:

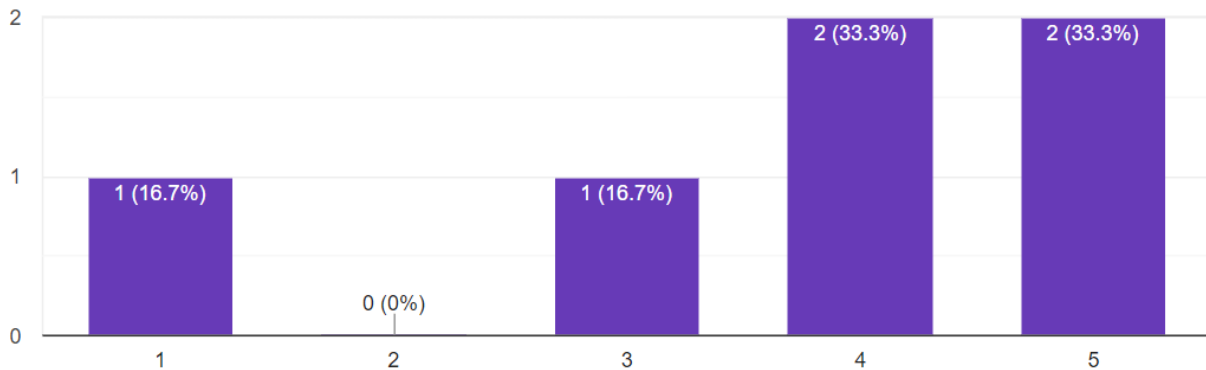
- Satisfactory results, overall rating of 3.67  
Note: One of the participants rated 1 star but gave very positive comments



## Phase IV - Our Results:

Please rate your experience with Track Function

6 responses



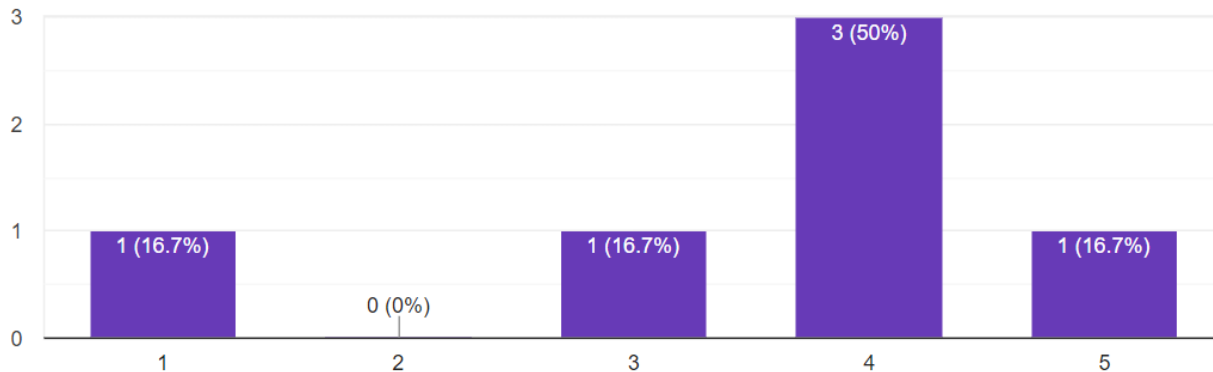




## Phase IV - Our Results:

Please rate your experience with Add Function

6 responses

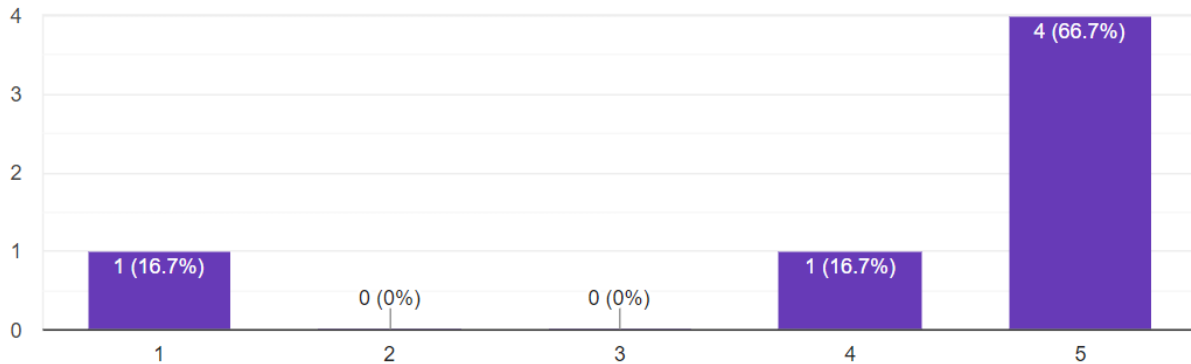




## Phase IV - Our Results:

Please rate your experience with Delete Function

6 responses





## Phase IV - Our Results:

Positive responses of the Track Function

- Very straightforward, Good/Easy to use.
- Information can be reached with a very few number of clicks.
- Information such as maps are clearly displayed.
- The ability to filter out unwanted parcel is very useful.



## Phase IV - Our Results:

Negative responses of the Track Function

- Little bugs exists.
- Design is not very appealing.
- Some information is hard to read.
- Some buttons could be clarified.
- Universal accessibility can be better implemented.



## Phase IV - Our Results:

Positive responses of the Add Function

- The add function is not complex
- Not time consuming
- Nice catch of what the user needs



## Phase IV - Our Results:

Negative responses of the Add Function

- Placement of buttons can be organized better
- No indication of selected account
- A little complex



## Phase IV - Our Results:

Positive responses of the Delete Function

- Easy to find and use
- Having a shortcut for deleting multiple items is convenient
- Two ways of deleting adds flexibility
- Small deletion button can reduce error



## Phase IV - Our Results:

Negative responses of the Delete Function

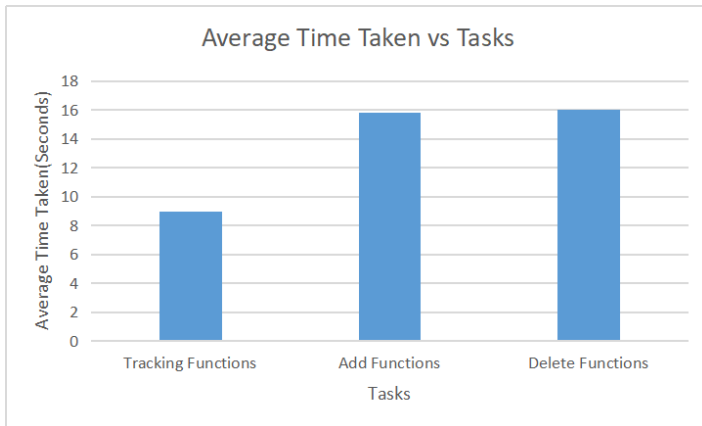
- The manage button can be better defined for deletion



## Phase IV - Our Results

On average:

- less than 10 seconds to complete the tracking tasks
- less than 16 seconds to complete add and delete tasks




## Phase IV - Limitation

- Not able to compare our APP with individual shopping websites.
- There exist contradictory data in the response of questionnaires.
- The sample size is too small.
- The backgrounds of participants are not diverse.



## Phase IV - Future Improvement

Suggestions from participants.

- The manage button need a better name.

All ▼

Manage



## Phase IV - Future Improvement

Suggestions from participants.

- Click any place of a package to its detail page.



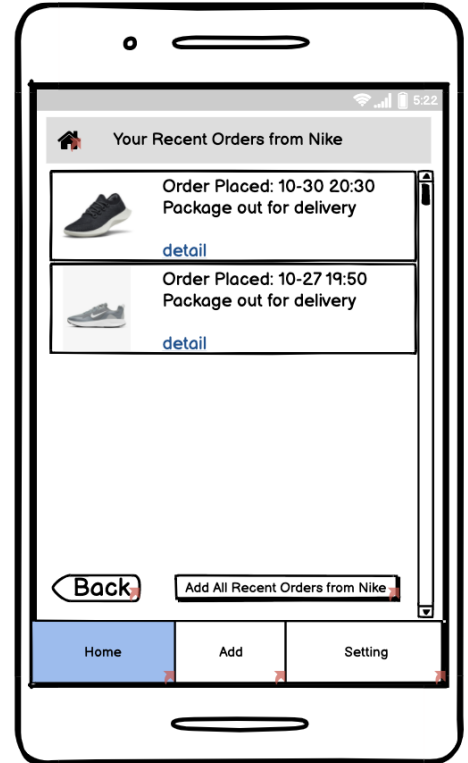
10-17 17:10

Package successfully delivered

[detail](#)

## Phase IV - Future Improvement

- Remove this step under add an account.





## Phase IV - Future Improvement

- Allow delete account(s).



## Phase IV - Future Improvement

- Allow adding multiple packages at once.

**Please Enter the Tracking  
Number of your Package:**