

# Detailed Project Specification

*[Team 118] Online Flea Market*

## Team Members

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## Functionalities

### User Management Module

- Registration: A CMU student can register an Online Flea Market account. Each AndrewID can register at most one account. This prevent users from registering multiple accounts to do something malicious.
- Log in: A registered user can log in at any time. Only authorized users can use most of the functionalities of the Market.
- Log out: A logged-in user can log out at any time. A logged-in user should be automatically logged out after a period of time.
- Password Resetting: A user may request for password resetting based on a confirmation Email sent to his/her Andrew Email Account.
- Historical Transactions: A user may view details of all his/her historical transactions.
- User Credit Viewing: A user can view his/her own credit information and other users' credit information.

### Transaction Module

- Item Posting: A seller can post any stuff he wants to sell on the Market, associated with some photos (at most five) and descriptions. The seller can also choose category to each good he/she sells.
- Item Modification: A seller can modify the item information, as soon as no one has bid for that item.
- Fixed-price Deal: A buyer can buy an item on a certain price. The payment may be accomplished by PayPal API.
- Bidding-price Deal: Anyone who wants to buy the good may bid against each other in a specific time range. The one who bids the highest will finally get it. The payment may be accomplished by PayPal API.
- Demand Posting: It is possible that someone wants to buy something but no one sells it at the moment. In this case, buyers can post a demand on the website so that if someone happens to have it and wants to sell, he can contact with the buyer.

### Search Module

- Search by Category: Buyers should be able to view the items by categories.

- Search by Keyword: Buyers should be able to search a good by keywords.
- Search Result Sorting: Buyers should be able to sort the search result by price (low to high), price (high to low), seller credit and time.

## Message Module

- Ask Item Questions: Potential buyers may ask questions about the item on the item page.
- Answer Item Questions: The owner of the item can answer some of the questions that buyers asked.
- Send Short Message: For additional communication needs, we have a message box system that allow users to send short messages to another user.
- Short Message Management: A user can view and delete received short messages.
- Email Notification Sending: A user can get email notifications when certain event happens.
- Email Notification Setting: A user can set email notification triggers, for example, get an email when a fixed-price transaction is accomplished or someone else is bidding against him/her.

## Data Models

A complete implementation of the data models used by Online Flea Market is showed as Django models. Please check the codes.

## UI Design and Wireframes

A complete set of wireframes for all nontrivial views within the Online Flea Market was uploaded into the repo.

## First Sprint Backlog

During the first sprint, we would like to complete the following functionalities:

- Registration (Tianyu)
- Log in (Tianyu)
- Log out (Tianyu)
- Password Resetting (Tianyu)
- Historical Transactions (Tianyu)
- User Credit Viewing (Tianyu)
- Item Posting (Haoliang)
- Fixed-price Deal (Haoliang)