Team 7

Project Phase 4 Requirements & UI Design

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Design

Documentation

Version Manager

Configuration Manager

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Repository Information:

git clone git@cs442.ddns.net:~/team7\_proj\_cs442.git

(Please send configuration manager your public key)

Ticket and code tracker (redmine)

<http://cs442.ddns.net:3000>

(Credentials were distributed in phase 2)

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# Requirements (15 points)

## Requirements and features list

The project requirements and features have been reduced since phase 1 due to the loss of teammates, time, and programming ability of teammates.

Below are the requirements and feature stories.

|  |  |  |  |
| --- | --- | --- | --- |
| Features | Tracker | Subject | Assignee |
| 188 | Feature | Share the item on sale | Janusz Nosek |
| 187 | Feature | Create the navigation pane for the app. | Janusz Nosek |
| 128 | Feature | Browse through items ending the soonest | Ernesto Garcia |
| 126 | Feature | Get the most up to date items | Ernesto Garcia |
| 125 | Feature | Be notified of a new item | Janusz Nosek |
| 124 | Feature | Take or use a picture of an item to sell | Janusz Nosek |
| 123 | Feature | Browse list of items being sold (user's own items) | Swathi Shenoy |
| 122 | Feature | Search for items to buy | Swathi Shenoy |
| 116 | Feature | List an item for sale | Janusz Nosek |
| 43 | Feature | UPC datasource lookup | Janusz Nosek |
| 42 | Feature | ISBN lookup data source | Janusz Nosek |
| 39 | Feature | Scan and/or create a barcode for an item | Janusz Nosek |
| 38 | Feature | Watch an item | Ernesto Garcia |
| 21 | Feature | Login as an IIT Student/Staff/Professor | Janusz Nosek |
| 13 | Feature | Search for an item | Swathi Shenoy |
| 8 | Feature | Create picture removal fragment | Ernesto Garcia |
| 4 | Feature | Browse for an item by categories | Swathi Shenoy |
| 2 | Feature | Browse an item description and buy | Janusz Nosek |

## UI Flow

## Design Diagrams

## APIs and class list

com.android.support:appcompat-v7:23.1.0

com.android.support:support-v4:23.1.0

com.android.support:design:23.1.0

com.android.support:recyclerview-v7:23.1.0

com.google.android.gms:play-services-identity:8.1.0

com.google.android.gms:play-services-plus:8.1.0

org.jsoup:jsoup:1.8.3' compile 'com.google.code.gson:gson:2.3

com.loopj.android:android-async-http:1.4.9

com.google.zxing:core:3.2.1

com.google.zxing:android-core:3.2.1

com.google.zxing:android-integration:3.2.

Of special note, google play services identity is used for login as well as the plus api.

ZXing is used of the barcoding if they are part of the final product.

qrGen is used in conjunction with ZXing.

Gson is used for backend processing

Android support, design, and recyclerview are new topics and not covered in class. They allow for real time and dynamic list update mechanisms.

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└── edu

└── iit

└── cs442

└── team7

└── iitbazaar

├── BazaarActivity.java

├── Category.java

├── CategoryUpdateListener.java

├── CircleImageView.java

├── CursorAdapter.java

├── FollowStatusListener.java

├── FontManager.java

├── FuturaView.java

├── IITBazaar.java

├── Item.java

├── ItemAdapter.java

├── ItemNumberListener.java

├── ItemRetrievalListener.java

├── LoginActivity.java

├── MenuKeys.java

├── MoneyValueFilter.java

├── NewItemsListener.java

├── PhotoListener.java

├── SellItemUpdateListener.java

├── UserRetrievalListener.java

├── WatchlistUpdateListener.java

├── common

│   ├── BitMapUriWrap.java

│   ├── BitMapUrlWrap.java

│   ├── BitMapWrap.java

│   ├── DBKeys.java

│   ├── DepartmentKeys.java

│   ├── FontConstants.java

│   ├── IntentKeys.java

│   ├── LevelKeys.java

│   ├── MysqlDataSizes.java

│   ├── PayPalKeys.java

│   ├── PayPalLinkContructor.java

│   ├── PhotoLibrary.java

│   ├── QRCodeRasterWriter.java

│   └── RankResultCode.java

├── database

│   ├── CustomDBAdapter.java

│   ├── DBController.java

│   ├── DBUpdaterService.java

│   ├── RemoteUpdateListener.java

│   └── UnlistItemListener.java

├── fragments

│   ├── AboutDialogBoxFragment.java

│   ├── BuyDialogBoxFragment.java

│   ├── BuyFragment.java

│   ├── BuyMenuFragment.java

│   ├── BuySellButtonFragment.java

│   ├── BypassButtonFragment.java

│   ├── BypassButtonFragment\_ProdFiller.java

│   ├── CategoryAdapter.java

│   ├── CategoryFragment.java

│   ├── CategorySpinnerAdapter.java

│   ├── ContactSellerContactFragment.java

│   ├── ContactSellerFeedbackFragment.java

│   ├── ContactSellerFragment.java

│   ├── ContactSellerItemsFragment.java

│   ├── ContactSellerNameFragment.java

│   ├── ContactSellerPictureFragment.java

│   ├── DescriptionRemovalFragment.java

│   ├── ItemDescriptionButtonFragment.java

│   ├── ItemDescriptionContentFragment.java

│   ├── ItemDescriptionFragment.java

│   ├── ItemEntryFragment.java

│   ├── NotificationsDialogBoxFragment.java

│   ├── PictureEntryDialogBoxFragment.java

│   ├── RecyclerViewCategoryItemListFragment.java

│   ├── RecyclerViewCategoryListFragment.java

│   ├── RecyclerViewItemListFragment.java

│   ├── RecyclerViewSellingListFragment.java

│   ├── RecyclerViewWatchlistFragment.java

│   ├── RelistItemEntryFragment.java

│   ├── RemovePictureButtonFragment.java

│   ├── RemovePictureFragment.java

│   ├── SellFragment.java

│   ├── SellItemInitEntryFragment.java

│   ├── SellMenuFragment.java

│   ├── SellNavKeys.java

│   ├── SellServiceInitEntryFragment.java

│   ├── TestFragment.java

│   └── UpdaterDialogBoxFragment.java

├── rankrequester

│   ├── Harness.java

│   ├── HarnessHelper.java

│   ├── PhoneBookKeys.java

│   └── RankRequesterService.java

└── user

└── User.java

10 directories, 83 files

# 2. Test cases and report

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test | Tracker | Feature | Status | Subject | Assignee |
| 161 | Test | 2 | Closed | Go to the buy screen and click on any item in the buy list. Browse through the description and details of the item and then click on Buy. | Swathi Shenoy |
| 160 | Test | 2 | Closed | Go to the buy screen and click on any item in the buy list. Check the clarity of the image in the description. | Swathi Shenoy |
| 159 | Test | 2 | Closed | Go to the buy screen and click on any item in the buy list. It opens up a detailed description of the item. | Swathi Shenoy |
| 164 | Test | 4 | Closed | Click on any category and browse through the list of items. It must match the category selected. | Swathi Shenoy |
| 163 | Test | 4 | Closed | Scroll through the list of categories. There must be no repetition of list items. | Swathi Shenoy |
| 162 | Test | 4 | Closed | Click on the Categories tab. Check for the alignment of the list of categories. | Swathi Shenoy |
| 158 | Test | 13 | Closed | Enter the search criteria and press Enter key. It returns the list of matching items. | Swathi Shenoy |
| 157 | Test | 13 | Closed | Click on the search bar and enter the title or description of the desired item. It does a pattern match and returns the matching items as the search criteria is entered. | Swathi Shenoy |
| 156 | Test | 13 | Closed | Click on the search icon and enter the description of the item to be searched. It returns the matching items. | Swathi Shenoy |
| 155 | Test | 13 | Closed | Click on the search icon and enter the title of the item to be searched. It returns the matching item/items. | Swathi Shenoy |
| 154 | Test | 13 | Closed | Click on the search bar and enter the description of the item to be searched. It returns the item that matches the entered criteria. | Swathi Shenoy |
| 153 | Test | 13 | Closed | Click on the search bar and enter the title of the item to be searched. It returns the item that matches the entered criteria. | Swathi Shenoy |
| 152 | Test | 13 | Closed | Click on the search bar from the Categories screen. We are redirected to the home screen and the search will yield the results. | Swathi Shenoy |
| 151 | Test | 13 | Closed | Click on the search bar from the Sell screen. We are redirected to the home screen and the search will yield the results. | Swathi Shenoy |
| 135 | Test | 21 | Closed | The user is established as authenticated (IIT student/faculty with valid hawk ID) and has a profile picture set in the account. We proceed with the login and direct the user to the home screen of the page. | Swathi Shenoy |
| 134 | Test | 21 | Closed | The user is established as authenticated (IIT student/faculty with valid hawk ID) but does not have a profile picture set in the account. We prompt an error message and do not proceed with the flow. | Swathi Shenoy |
| 133 | Test | 21 | Closed | There is no wifi or mobile data connection and the user tries to login to the app. We prompt an error message stating there is no network connection. | Swathi Shenoy |
| 132 | Test | 21 | Closed | A user who does not belong to IIT tries to login with his/her personal mail ID. Then we prompt an error message stating the app is meant only for IIT students and faculty. | Swathi Shenoy |
| 131 | Test | 21 | Closed | Student/Faculty tries to login without providing the iit.edu suffix to the mail ID(enters only user name). We prompt user to enter the complete email ID. | Swathi Shenoy |
| 130 | Test | 21 | Closed | Student/Faculty enters wrong login ID. Then we prompt an error and ask the user to enter correct email ID. | Swathi Shenoy |
| 129 | Test | 21 | Closed | Login to the app using hawk ID. The back end validates if it is a valid user (student/faculty) and redirects to the home page of the app. | Swathi Shenoy |
| 68 | Test | 21 | Closed | Login screen activities: User logs in and wants to register with his hawk ID to use the app | Swathi Shenoy |
| 67 | Test | 21 | Closed | Login screen activities: User clicks on IIT Bazaar app and she/he is not connected to the internet | Swathi Shenoy |
| 66 | Test | 21 | Closed | Login screen activities: User clicks on IIT Bazaar app and she/he is connected to the internet | Swathi Shenoy |
| 65 | Test | 21 | Closed | Login screen activities: User enters his/her hawk ID and clicks on Login(invalid user ID) | Swathi Shenoy |
| 64 | Test | 21 | Closed | Login screen activities: User enters his/her hawk ID and clicks on Login(Valid user ID) | Swathi Shenoy |
| 63 | Test | 21 | Closed | Login screen activities: Go to menu and click on the IIT Bazaar app. | Swathi Shenoy |
| 59 | Test | 21 | Closed | Login Activities for IIT Bazaar app | Swathi Shenoy |
| 178 | Test | 38 | Closed | Click on any item in the sell screen and click on unfollow button.It gets removed from "Following" list accessible from left pane. | Swathi Shenoy |
| 177 | Test | 38 | Closed | Click on any item in the buy screen and click on unfollow button.It gets removed from "Following" list accessible from left pane. | Swathi Shenoy |
| 176 | Test | 38 | Closed | Click on any item in the buy screen and click on Follow button.It gets added to "Following" list accessible from left pane. | Swathi Shenoy |
| 175 | Test | 38 | Closed | After the item is listed in the sell screen, click on Follow button. It will be added to the list "Following" accessible from the navigation pane. | Swathi Shenoy |
| 183 | Test | 39 | Closed | The app to scan bar code malfunctions. The QR code is not read and an error message pops up. | Swathi Shenoy |
| 182 | Test | 39 | Closed | The QR code is malformed or unreadable. Then an error message is prompted. | Swathi Shenoy |
| 181 | Test | 39 | Closed | Select Scan item option from the navigation pane. It prompts to install a bar code scanner. After installation, that app scans the QR code for the item. | Swathi Shenoy |
| 174 | Test | 116 | Closed | After listing the item check the clarity of the image. It must be sharp and clean. | Swathi Shenoy |
| 173 | Test | 116 | Closed | After the item is listed check the values in the listing.It must be correct and must match the values entered by the user. | Swathi Shenoy |
| 172 | Test | 116 | Closed | Go to Sell screen and enter the title and in the Sell Item screen try to list the item without adding the description. It throws an error message stating to add description. | Swathi Shenoy |
| 171 | Test | 116 | Closed | Go to Sell screen and enter the title and in the Sell Item screen try to list the item by selecting an ending date older than current date. It throws an error message stating to change ending date to a later date. | Swathi Shenoy |
| 170 | Test | 116 | Closed | Go to Sell screen and enter the title and in the Sell Item screen try to list the item without adding the price. It throws an error message stating to add price. | Swathi Shenoy |
| 169 | Test | 116 | Closed | Go to Sell screen and enter the title and in the Sell Item screen try to list the item without adding the photo. It throws an error message stating to add photo. | Swathi Shenoy |
| 168 | Test | 116 | Closed | Go to the sell screen and enter the title of the item and press enter key. It redirects to next screen and then enter the price,date and description along with the photo of the item and press on list item.It must list the item in the sell list. | Swathi Shenoy |
| 92 | Test | 116 | Closed | Sell screen activities: Enter all the details correctly in the selling item details screen and click on List Item | Swathi Shenoy |
| 91 | Test | 116 | Closed | Sell screen activities: In the selling item details screen, select ending date previous to current date and press list item. | Swathi Shenoy |
| 90 | Test | 116 | Closed | Sell screen activities: In the selling item details screen, leave the description blank and press list item. | Swathi Shenoy |
| 89 | Test | 116 | Closed | Sell screen activities: In the selling item details screen, leave the price blank and press list item | Swathi Shenoy |
| 88 | Test | 116 | Closed | Sell screen activities:In the selling item details screen, leave the image blank and press list item. | Swathi Shenoy |
| 87 | Test | 116 | Closed | Sell screen activities: Enter the title of item to be sold and click on Enter. | Swathi Shenoy |
| 150 | Test | 122 | Closed | On the buy items list, enter the description of a non-existing item. It returns no items. | Swathi Shenoy |
| 149 | Test | 122 | Closed | On the buy items list, enter the title of a non-existing item. It returns no items. | Swathi Shenoy |
| 148 | Test | 122 | Closed | On the list of buy items, enter the description of the item and click on search. It returns the matched item. | Swathi Shenoy |
| 147 | Test | 122 | Closed | In the buy screen, click on the spyglass icon and initiate a search on the item. It returns the matched item. | Swathi Shenoy |
| 146 | Test | 122 | Closed | From the listing of items in the home screen, click on the search bar and enter the title of the item to be searched. It returns the matched item. | Swathi Shenoy |
| 145 | Test | 123 | Closed | Click on any list item and check the item's image. It must be clear and sharp. | Swathi Shenoy |
| 144 | Test | 123 | Closed | Click on any list item and check the item description. It must be consistent with the data in the list. | Swathi Shenoy |
| 143 | Test | 123 | Closed | Check the clarity of the image of the item in the list view. It must be clear and sharp. | Swathi Shenoy |
| 142 | Test | 123 | Closed | Scroll through the list and check the items. They must not be repeating. | Swathi Shenoy |
| 141 | Test | 123 | Closed | Check the items in the list. They must be the ones bought my the user only. | Swathi Shenoy |
| 140 | Test | 123 | Closed | Check for the alignment of the items in the list. It must be in order and streamlined. | Swathi Shenoy |
| 180 | Test | 124 | Closed | In the sell item screen, for the "Add photo" option select "Take a photo" option. Camera opens and after clicking the photo, it gets loaded to the screen.It must be clearly visible. | Swathi Shenoy |
| 179 | Test | 124 | Closed | In the sell item screen, for the "Add photo" option select an image from the gallery. It must be loaded correctly and must be visible clearly. | Swathi Shenoy |
| 186 | Test | 125 | Closed | Click on notifications on left pane and disable it. After this add a new item. No notification should appear. | Swathi Shenoy |
| 185 | Test | 125 | Closed | After enabling notifications. Add a new item to buy list. It should appear in the notifications bar - "new item added". | Swathi Shenoy |
| 184 | Test | 125 | Closed | On the navigation pane, click on notifications and enable them.This provides user with notifications of new items. | Swathi Shenoy |
| 167 | Test | 126 | Closed | Browse through the buy list and examine the list items.It must be aligned correctly. | Swathi Shenoy |
| 166 | Test | 126 | Closed | Browse through the buy list and examine the end date. It must be sorted according to the end date in ascending order. | Swathi Shenoy |
| 165 | Test | 126 | Closed | Browse through the buy list and examine the end date. It must be beyond the current date. | Swathi Shenoy |
| 139 | Test | 128 | Closed | Add more than 10 or 15 items to the list and check the alignment.The list items must not overlap with each other. | Swathi Shenoy |
| 138 | Test | 128 | Closed | Check the end date and the format of it. It must not be malformed. | Swathi Shenoy |
| 137 | Test | 128 | Closed | Check for the alignment of the items in the list. It must be in order and streamlined. | Swathi Shenoy |
| 136 | Test | 128 | Closed | Check if the list is sorted in order containing items with latest end date. | Swathi Shenoy |
| 86 | Test | 128 | Closed | Buy screen activities: Check the overall layout of the page . | Swathi Shenoy |
| 85 | Test | 128 | Closed | Buy screen activities | Swathi Shenoy |
| 83 | Test | 128 | Closed | Buy screen activities:Check the alignment and text of item name in the listing | Swathi Shenoy |
| 81 | Test | 128 | Closed | Buy screen activities | Swathi Shenoy |
| 80 | Test | 128 | Closed | Buy screen activities:User logs in and it is successful | Swathi Shenoy |
| 79 | Test | 187 | Closed | Side menu and navigation: Go to Categories screen and click on Buy tab on the top | Swathi Shenoy |
| 78 | Test | 187 | Closed | Side menu and navigation : Go to Categories screen and click on Sell tab on the top | Swathi Shenoy |
| 77 | Test | 187 | Closed | Side menu and navigation: Go to Sell screen and click on Selling Item tab on the top | Swathi Shenoy |
| 76 | Test | 187 | Closed | Side menu and navigation : Go to Sell screen and click on Buy tab on the top | Swathi Shenoy |
| 75 | Test | 187 | Closed | Side menu and navigation: Go to Buy screen and Click on Category tab on the top | Swathi Shenoy |
| 74 | Test | 187 | Closed | Side menu and navigation: Go to Buy screen and Click on Ending tab on the top | Swathi Shenoy |
| 73 | Test | 187 | Closed | Side menu and navigation: Go to Buy screen and Click on Sell tab on the top | Swathi Shenoy |
| 72 | Test | 187 | Closed | Side menu and navigation: Click on the Disconnect option in the side menu | Swathi Shenoy |
| 71 | Test | 187 | Closed | Side menu and navigation: Click on the Logout option in the side menu | Swathi Shenoy |
| 70 | Test | 187 | Closed | Side menu and navigation: Click on Home option in the side menu | Swathi Shenoy |
| 69 | Test | 187 | Closed | Side menu and navigation: Login to the app and click on the hamburger icon | Swathi Shenoy |
| 127 | Test | 188 | Closed | Share an item: After adding or browsing the item, share it using any mailing or messaging app. | Janusz Nosek |
| 84 | Test |  | Closed | Buy screen activities | Swathi Shenoy |
| 82 | Test |  | Closed | Buy screen activities:Check the listing data | Swathi Shenoy |
| 46 | Test |  | Closed | Test item switching | Janusz Nosek |
| 45 | Test |  | Closed | Test horizontal/vertical orientation | Janusz Nosek |
| 44 | Test |  | Closed | Test basic google login | Janusz Nosek |

# 3. Use cases from end user point of view

The target user of this application is a member of the IIT community and to enable that community to facilitate the exchange of goods and service for money or otherwise. A predecessor of this system was also called the IIT Bazaar. This system is restricted to IIT students only to keep the safety and security of the community.

A selling/listing users would list an item on the network and this item would be available for all to see.

The selling use must include a picture, a short description and a price. The price can be 0.00, meaning free or they are willing to trade. As is standard practice during the end of a semester, people will throw out many of their belonging. This can be put to a better cause by offering the chance for other student to obtain these items for either free, money or a trade for something of equal value but small and easier to transport.

A buying/soliciting user would look for items they want and click the buy button, which would message selling/listing user. Negotiation and meeting would be done through the already available email and the emails are structured in a way that allows filtration.

Listing on this system provides a safe environment for students, staff and faculty to exchange goods and services. As with services like craigslist, meeting in person in public places such as the MTCC is recommended, viewing the item before purchase is also recommended. Also, most importantly, money is an instrument that can be exchanged for goods, but they can also be given away or exchanged/bartered for something else.

This system mainly provides a solicitation platform for classified advertisements. Unlike a bulletin board, the scope is much narrower and specifically requires photos and items to be exchanged.

Also, users can scan listings from the real world using the QR code scanner to view on the handheld. The QR codes can be retrieved from the application as PNGs by simply clicking the Share button. This will not only attach the picture and description, but also the png of the QR code for sharing and posting.

Purchases can be facilitated by email for cash transaction or the paypal system can be used.

See additional use case diagram on next page

## UML Use Case Diagram