

**Requirement Analysis**

Charity Second-hand Online Store

**Revised records**

|  |  |  |  |
| --- | --- | --- | --- |
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# Requirement Background

Our client is Zoe Liu who works as an accountant at the Salvation Army church in Lower Hutt. The church has a nationwide second-hand store called Salvation Army Family Store, which collects donated items from residents (clothing, toys, kitchen stuff, etc.). It provides physical stores for residents who like second-hand goods, and the income will be used to fund the operation of the church and help people in difficult areas.

It is noted that the information construction of the second-hand store attached to the church is relatively backward. The store does not have an online store, so it cannot give consumers a better shopping experience, or the true value of some of the goods sold at far lower prices than they could be sold at. Therefore, we plan to set up an online auction store for the second-hand store. This would enable residents to browse high quality second-hand goods online, and if the auction is successful, customers can pay and make an appointment to pick up the goods, which will greatly increase the number of participants, improve the transaction efficiency and increase the turnover and revenue income.

Although we have a client who is employed by the Salvation Army, this project could be rolled out and utilized by any other charity and not exclusively for the Salvation Army. Therefore this project will be created with this in mind.

# Requirement Purpose

We plan to set up an online auction store for the second-hand store. Residents can browse high quality second-hand goods online. If the auction is successful, customers can make an appointment to pick up the goods and finish the payment in the store, which will greatly increase the number of participants, improve the transaction efficiency and increase the turnover.

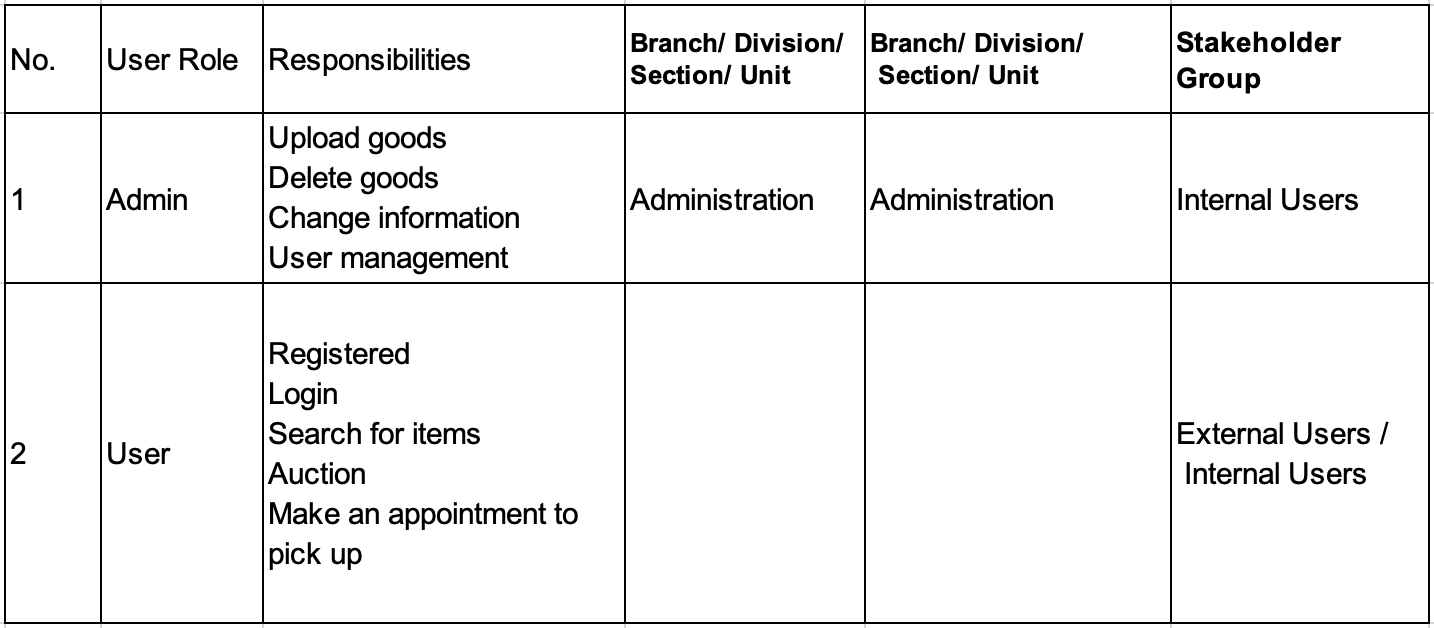
# Requirement Analysis

## Proposed system overview

The proposed Charity second-hand online store would allow users to log in, browse, find items they like and bid on targeted items using a computer or mobile phone. If the bid is successful, the system allows users to apply for a pickup time and go to the store to pick up the goods, pay for the goods and complete the transaction.

## System user profile

The following provides a table of external and internal users of the website. Each user will have a role in the system.



## Functional requirements

### Main Page

#### Description

The requirement of the main page includes the display of goods information, goods categories, search box, advertisement banner and other details.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_001 | |
| Requirement name: | Main page | |
| Triggering event: | User/Administrator wants to view the website | |
| Description: | The requirement of the main page includes the display of goods information, goods categories, search box, advertisement banner and other details. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator open the website by any browser | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator open the website | To display the main page. |
|
| Exception conditions: |  | |

### Contact us

#### Description

The requirement is to introduce the website. It should include map and text.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_002 | |
| Requirement name: | Contact us | |
| Triggering event: | User/Administrator wants to view the contact information of the store | |
| Description: | The requirement is to introduce the website. It should include map and text. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator open the page by clicking the button of contact us | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator open the page | To display the web page of contact us. |
|
| Exception conditions: |  | |

### About us

#### Description

The requirement is to introduce the website. It should include picture and text.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_003 | |
| Requirement name: | About us | |
| Triggering event: | User/Administrator wants to view the introduction of the website | |
| Description: | The requirement is to introduce the website. It should include picture and text. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator open the page by clicking the button of about us | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator open the page | To display the web page of about us. |
|
| Exception conditions: |  | |

### Registration

#### Description

The requirement of the registration is to create a new account for user.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_004 | |
| Requirement name: | Registration | |
| Triggering event: | User/Administrator wants to create a new account | |
| Description: | The requirement of the registration is to create a new account for user. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator does not have an account. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator needs to fill in the user registration form | To create a new account for user/adminitrator |
|
| Exception conditions: |  | |

### Login

#### Description

The requirement of the login is to login the website by using an existing account.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_005 | |
| Requirement name: | Login | |
| Triggering event: | User/Administrator inputs username and password on the page of login. | |
| Description: | The requirement of the login is to login the website by using an existing account. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator has an existing account. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator inputs username and password | To verify if the username or password is right. If they are right, permit users to login. If they are wrong, giving an error message. |
|
| Exception conditions: |  | |

### Logout

#### Description

The requirement of the logout is to logout the website by using an existing account.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_006 | |
| Requirement name: | Logout | |
| Triggering event: | User/Administrator wants to logout the website | |
| Description: | The requirement of the logout is to logout the website by using an existing account. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator has an existing account. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator click the button of logout | To execute the operation of user logout. |
|
| Exception conditions: |  | |

### Password recover

#### Description

The requirement is to change a new password when a user forgot his/her password. It will verify user’s mobile number and email information.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_007 | |
| Requirement name: | Password recover | |
| Triggering event: | User/Administrator wants to find the forgotten password. | |
| Description: | The requirement is to change a new password when a user forgot his/her password. It will verify user’s mobile number and email information. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator has an existing account. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator needs to input email and mobile information. | To verify if email and mobile are right. If the verification is failed, the process of password recover will be failed. |
|
| Exception conditions: |  | |

### Personal information

#### Description

The requirement of the personal information can display the details of personal information and support user to modify them.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_008 | |
| Requirement name: | Personal information | |
| Triggering event: | User/Administrator wants to view or modify his/her personal information. | |
| Description: | The requirement of the personal information can display the details of personal information and support user to modify them. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator has an existing account. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator can modify personal information | To update personal information. |
|
| Exception conditions: |  | |

### Auction

#### Description

The requirement of auction supports users to bid goods and view the bid history. It is failed when the bid price is less than current price.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_009 | |
| Requirement name: | Auction | |
| Triggering event: | User/Administrator wants to bid a product. | |
| Description: | The requirement of auction supports users to bid goods and view the bid history. It is failed when the bid price is less than current price. If the user does not login, the auction cannot be operated. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator has an existing account. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator bids a product. | To verify if the price is less than the current one. To display the price in the list of bid history. |
|
| Exception conditions: |  | |

### Make appointments

#### Description

The requirement is to support user to make an appointment and pick up the goods in the store. The transaction will be closed.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_010 | |
| Requirement name: | Make appointments | |
| Triggering event: | User/Administrator wants to pick up the product that he/she won. | |
| Description: | The requirement is to support user to make an appointment and pick up the goods in the store. The transaction will be closed. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator won an auction. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator can input the time and information for the appointment. | To record the appointment information, and support administrator review it. |
|
| Exception conditions: |  | |

### Goods management

#### Description

The requirement is to support administrator to manage goods, including uploading, modification and deleting

#### Role

Administrator.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_011 | |
| Requirement name: | Goods management | |
| Triggering event: | Administrator wants to manage goods. | |
| Description: | The requirement is to support administrator to manage goods, including uploading, modification and deleting | |
| Actors: | Administrator | |
| Stakeholders: |  | |
| Preconditions: | Administrator enters the page of goods management. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| Administrator can upload, modify or delete products. | To update the operation actions. |
|
| Exception conditions: |  | |

### Shopping cart

#### Description

The requirement is to support users to add favourite goods into the cart.

#### Role

Administrator, User.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_012 | |
| Requirement name: | Shopping cart | |
| Triggering event: | User/Administrator wants to save some products that he/she likes. | |
| Description: | The requirement is to support users to add favourite goods into the cart. | |
| Actors: | User/Administrator | |
| Stakeholders: |  | |
| Preconditions: | User/Administrator has an existing account | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| User/Administrator can add some products info the shopping cart | To add these product into user’s shopping cart. |
|
| Exception conditions: |  | |

### User management

#### Description

The requirement is to support administrator to manage user, including changing user’s status, changing administrator’s status and viewing user list.

#### Role

Administrator.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_013 | |
| Requirement name: | User management | |
| Triggering event: | Administrator wants to manage user’s status. | |
| Description: | The requirement is to support administrator to manage user, including changing user’s status, changing administrator’s status and viewing user list. | |
| Actors: | Administrator | |
| Stakeholders: |  | |
| Preconditions: | Administrator enters the page of goods management. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| Administrator can enable or disable user’s status. Administrator can also change a normal user to administrator. | To adjust user’s status. |
|
| Exception conditions: |  | |

### Order management

#### Description

The requirement is to support administrator to manage order, including setting order’s status and viewing order list.

#### Role

Administrator.

#### Requirement case

|  |  |  |
| --- | --- | --- |
| Requirement ID: | BP\_014 | |
| Requirement name: | Order management | |
| Triggering event: | Administrator wants to review or order order’s status. | |
| Description: | The requirement is to support administrator to manage order, including setting order’s status and viewing order list. | |
| Actors: | Administrator | |
| Stakeholders: |  | |
| Preconditions: | Administrator enters the page of order management. | |
| Postconditions: |  | |
| Flow of activities: | Actor | System |
| Administrator can adjust order’s status, such as not make an appointment, success, made an appointment. Administrator can also adjust order’s status. | To adjust order’s status. |
|
| Exception conditions: |  | |

## Non-functional requirements

### User Interface

The online store’s layout can be created and with the colour and its format should be consistent with the layout and colour of the main charity website.

### Performance

The website can support multiple users to visit at the same time, to ensure the reliability of high concurrency.

Support mainstream browsers of PC terminal and mobile terminal (such as Chrome, Safari, IE).

### Availability

The site will ensure features are available, bug-free, and the system responds quickly.

### Reliability

The website will ensure that the technical framework is reasonable. Interface and page response time is reliable, and the user’s operation is not abnormal.

### Maintainability

When there is a problem in the system, it can be quickly located to solve the problem. The team should ensure the rationality of the code design.

### Security

Ensure the security of the database, the security of the user’s data, and the security of login permission control.

## Other requirements

### System hardware, software and network

To complete the project, the project team needs to prepare software and hardware resources. To reduce project costs in software resources, the project team will try to use free software (open source) as much as possible. For the hardware resources, the project team will use existing equipment.

The following table shows the resources required for project development and testing:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Item** | **Version** | **quantity** | **Finish time** | **Remark** |
| **Software** | | | | | |
| Database | MySQL | V8.0 | 4 | 3/16/2020 | Michael |
|  | Navicat for MySQL | V10.0.11 | 3 | 3/16/2020 | Michael |
| Application server | Tomcat | V8.5 | 4 | 3/16/2020 | Cong |
| IDE | Eclipse | V2019-3(4.11) | 3 | 3/16/2020 | Cong |
| **Hardware** | | | | | |
| Laptop | CUP\*2  Memory：8GB  DDH：200GB | | 3 | Completed | Using team member’s laptop |
| Testing server | CUP\*2  Memory：8GB  DDH：200GB | | 1 | 4/11/2020 | Installed MySQL  and Tomcat.  Cong is responsible for preparing |
| Printer |  | | 1 | Completed | School |

The following table shows the resources required for project implement:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Item** | **Version** | **Quantity** | **Finish time** | **Remark** |
| **Software** | | | | | |
| Database | MySQL | V8.0 | 1 | 4/24/2020 | Michael |
| Application server： | Tomcat | V8.5 | 1 | 4/24/2020 | Cong |
| Host Name |  |  | 1 | 5/1/2020 | Client |
| **Hardware** | | | | | |
| PC server | CUP\*2  Memory：8GB  DDH：200GB | | 1 | 4/24/2020 | Client |