# Requirement

The bookstore sells different kinds of books.

There are three types of books: paperback, hardcover and ebook.

Items shipped from bookstore can be returned within 30 days of receipt.

After the bookstore received the returned items, customers will get the refund.

For all the customers, shipping is free when the total price of the order is above $35.

For prime customers, free two day ship priority is available.

There are three payment methods: credit card, bank account and store card.

## Customer:

Customers can buy books from the bookstore.

Customers can search books from the bookstore.

Customers can cancel the order in the bookstore.

Customers can return the book to the bookstore.

Customers can apply replacement or refund if their items are missing 24 hours past expected delivery.

Customers can create a new account in the bookstore.

Customers can become the prime member with $98/year.

Customers can update the personal information of their account.

Customers can contact the customer support to get some help.

Customers can pay the order using their credit card or bank account after being verified.

## Manager:

Manager can add new books for the bookstore.

Manager can cancel any order in the bookstore.

Manager can determine whether to give refund/replacement or not.

Manager can change the price of any book in the bookstore.

Manager can distribute store card to customers.

## Technical Support:

Technical support can get problem report of the system..

Technical support can solve problems of the system.

Technical support can create a list of the Top100 bestsellers.

## Customer Support:

Customer support can provide some help to customers when customers contact them.

Customer support can report technical problems to technical support.

## Shipping department:

Shipping department can ship the book to the customer.

Shipping department can get the returned items from the customer and ship to the bookstore.

## Bank:

The bank can verify the credit card information and bank account information of the customers.

**Actor dictionary**

|  |  |  |  |
| --- | --- | --- | --- |
| **Actor** | **Description** | **Abstraction** | **Use case(s)** |
| Customer | People who can use this system to buy books and manage their order. They can also manage their account and get help from customer support. |  | 1. Search Book 2. Add Book to Shopping Cart 3. Checkout 4. Apply Cancel Order 5. Return Book 6. Apply Replacement 7. Create Account 8. Update Account 9. Upgrade Account 10. Contact Customer Support |
| Prime Customer | Customers who can use free two day shipping priority. |  | Use Free Two Day Shipping Priority |
| Manager | People who determine the cancellation, refund and replacement issue. They also have the right to buy new books, change the price and distribute store card. |  | 1. Cancel Order 2. Give Refund 3. Give Replacement 4. Add New Books 5. Change Price 6. Distribute Store Card |
| Technical Support | People who work to solve technical problems and create ranking list. |  | 1. Create Ranking List 2. Get Problem Report 3. Solve Problems |
| Customer Support | People who help customers to solve problems. |  | 1. Offer Help 2. Report Technical Problem |
| Shipping Department | Provide the service of shipping and returning books |  | 1. Ship Book 2. Get Returned Book |
| Bank | Help customers to verify their bank information |  | 1. Verify Credit Card 2. Verify Bank Account |

**Domain dictionary**

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| --- | --- | --- |
| Name | Type | Description |
| Customer | Role | People who can use this system to buy books and manage their order. They can also manage their account and get help from customer support. |
| Book | Object | Products sold in the bookstore is book. |
| Order | Object | Placed after customer checkout. Can be cancelled. |
| Shopping Cart | Object | A wish list of customers before they check out. Can add or delete items in it. |
| Account | Object | Used by customers to do all the operations in the bookstore. |
| Search Book | Process | Search books from the bookstore. Performed by customer. |
| Add Book to Shopping Cart | Process | Add book to shopping cart. Performed by customer. |
| Checkout | Process | Pay and Place the order after adding book to cart and choosing the payment way. Performed by customer. |
| Credit Card Payment | Process | Pay the bill by credit card which has been verified by bank. |
| Bank Account Payment | Process | Pay the bill by bank account which has been verified by bank. |
| Store Card Payment | Process | Pay the bill by store card which is distributed by manager. |
| Apply Cancel Order | Process | Apply to cancel the existing order. Performed by customer. |
| Return Book | Process | Return unsatisfied book back to the bookstore within 30 days of receipt. Performed by customer. |
| Apply Replacement | Process | Apply replacement when the books are missing 24 hours past expected delivery. Performed by customer. |
| Create Account | Process | Create account in the book store. Performed by customer. |
| Update Account | Process | Update the personal information of account. Performed by customer. |
| Upgrade Account | Process | Become the prime member with $98/year. Performed by customer. |
| Contact Customer Support | Process | Contact the customer support to get some help. Performed by customer. |
| Missing Policy | Business Rule | Customers can apply replacement or refund if their items are missing 24 hours past expected delivery. |
| Return Policy | Business Rule | Items shipped from bookstore can be returned within 30 days of receipt. |
| Prime Policy | Business Rule | Customers can become the prime member with $98/year. |
| Free Two Day Policy | Business Rule | Prime customers can use free two day shipping priority. |
| Name | Type | Description |
| Prime Customer | Role | Customers who can use free two day shipping priority. |
| Use Free Two Day Shipping Priority | Process | Use free two day shipping priority after upgrade account. Performed by prime customer. |
| Name | Type | Description |
| Manager | Role | People who determine the cancellation, refund and replacement issue. They also have the right to change the price. |
| Refund | Object | Money given back to customer after books are returned successfully. |
| Store Card | Object | Card distributed by manager. Can be used to buy books in the bookstore. |
| Cancel Order | Process | Determine to cancel order after customers apply to cancel order. Performed by manager. |
| Give Refund | Process | Determine to give refund after customers return books. Performed by manager. |
| Give Replacement | Process | Determine to give replacement after customers apply replacement. Performed by manager. |
| Change Price | Process | Change the price of any book in the bookstore. Performed by manager. |
| Add New Books | Process | Add new books for the bookstore. Performed by manager. |
| Distribute Store Card | Process | Distribute store card to customers. Performed by manager. |
| Name | Type | Description |
| Customer Support | Role | People who help customers to solve problems. |
| Technical Problem | Object | Technical problems which need help from technical support. |
| Offer Help | Process | Offer help after customers contact them. Performed by customer support. |
| Report Technical Problem | Process | Report technical problems to technical support. Performed by customer support. |
| Name | Type | Description |
| Technical Support | Role | People who work to solve technical problems and create ranking list. |
| Ranking List | Object | List which includes the information of Top100 bestsellers. |
| Problem Report | Object | Report which has the detailed information of the technical problems. |
| Create Ranking List | Process | Create a list of the Top100 bestsellers. Performed by technical support. |
| Get Problem Report | Process | Get problem report from customer support. Performed by technical support. |
| Solve Problems | Process | Solve problems of the system. Performed by technical support. |
| Name | Type | Description |
| Shipping Department | Role | Provide the service of shipping and returning books |
| Ship Book | Process | Ship the book to the customer. Performed by shipping department. |
| Get Returned Book | Process | Get the returned items from the customer and ship to the bookstore. Performed by shipping department. |
| Shipping Free Policy | Business Rule | Shipping Free Policy |
| Name | Type | Description |
| Bank | Role | Help customers to verify their bank information |
| Credit Card | Object | Credit card used to pay bill, owned by customer and verified by bank. |
| Bank Account | Object | Bank account used to pay bill, owned by customer and verified by bank. |
| Verify Credit Card | Process | Verify the credit card information of the customers. Performed by bank. |
| Verify Bank Account | Process | Verify bank account information of the customers. Performed by bank. |
| Verification Policy | Business Rule | Customers can pay the order using their credit card or bank account after being verified. |