Nirma Vending Assistance And Sublet (NIRVAAS)

Course Code - 2CS504 Software Engineering

Group Name - G5

Enrolment No: 18BCE081

Name: Ishika Shah

18BCE074 - Greeva Khant

18BCE081 - Ishika Shah

18BCE082 - Ayush Jain

18BCE085 - Parth Jasani

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Use Case Specification: Registration

1. **Registration**

   1.1 Brief Description:

   This use case describes the flow of the registration process in the system.

2. **Actors**

   1) Student
   2) Stationery Staff
   3) System Administrator

3. **Basic Flow**

   3.1 Basic Flow

   1) The user must register in order to access the functionalities of the system.
   2) This use case starts when the registrar requests to register.
   3) The user can access the registration form from the main page.
   4) He/she must fill all the details to register.
   5) The system will validate the details.
   6) Verification will be done through email, after which the details will be saved in the database.
   7) The user is now registered.

   3.2 Alternative Flows

   3.2.1 First Alternative Flow:

   1) The user hasn't entered all the mandatory fields in the registration form.
   2) When the user submits the details, the validation is fired and the user is asked to fill in the required fields.

   3.2.2 Second Alternate Flow:

   1) The user enters the wrong value for some of the fields. For example: In the email field for students, the user doesn't enter Nirma email id.
   2) When the user submits the details, the validation is fired and the user will be asked to enter a valid email address. Same holds for any other fields which have some pattern to be followed.

3.2.3 Third Alternate Flow:

1) All the fields have been entered properly.
2) The user submits the details. Some problems occur while saving the records in the database.
3) The record will not be saved and the user will be displayed the message “Registration Failed!”

3.2.4 Fourth Alternate Flow:

1) After entering all the fields correctly and after successfully getting the verification mail, the user delay in verification.
2) The users have gone through the registration process again.

4 Post Condition:

On successful registration, the user will be redirected to the login page.

Use Case Specification: Login

1. **Login**

   1.1 Brief Description:

   This use case describes the flow of the login process in the system.

2. **Actors**

   1) Student
   2) Stationery Staff
   3) System Administrator

3. **Basic Flow**

   3.1 Basic Flow

   1) The user accesses the home page of the site.
   2) The user must access the login page from the main site.
   3) The login page asks for username, password and category.
   4) The user submits the required details.
   5) The user is logged into the system based on the role.

   3.2 Alternative Flows

   3.2.1 First Alternative Flow:

   1) All the fields on the login page are mandatory. The users do not skip any of the fields and try to logging into the system.
   2) The validation is fired asking the user to enter all the fields.

   3.2.2 Second Alternative Flow:

   1) The user enters the wrong username and/or password.
   2) When the user tries logging in, the message will be displayed "Incorrect Username or Password". The user will have to again enter the correct details and login.

   3.2.3 Third Alternative Flow:

   1) All the fields have been entered properly.
   2) The user provides the correct details but the database connection fails at this point.
   3) The details can't be checked at this point and a message displayed "There is some error occurred. Please login again".

4. **Post Condition:**

   On successful login, the user will be redirected to the home page.

Use Case Specification: Stock Checker

1. **Stock Checker**

   1.1 Brief Description:

   This use case describes the flow of the stock checker process in the system.

2. **Actors**

   1) Stationery Staff
   2) System Administrator

3. **Basic Flow**

   3.1 Basic Flow

   1) The user accesses the homepage.
   2) The use case starts when the user requests to 'Check Stock'.
   3) The list of available categories will be displayed.
   4) After the user requests a particular category, the list of the products of that particular category will be displayed with the different filters like product name, product id etc
   5) From that products list, the user must select one product and check the stock for that product.
   6) After editing, the user will request to save and the modified record will be saved in the database.

   3.2 Alternative Flows

   3.2.1 First Alternative Flow:

   1) The changes will be done properly.
   2) The user accesses the save button. Some problems occur while saving the record in the database.
   3) The modified data will not be saved and the user will get a message "The changes are not saved. Please do changes again"

4. **Pre-Condition:**

   The user must be logged into the system before using the stock checker.

5. **Post Condition:**

   After successful modifications, the user will be notified by message "The changes are saved".

Use Case Specification: Notification System

1. **Notification System**

   1.1 Brief Description:

   This use case is for providing notifications to the user upon activity of their respective account.

2. **Actors**

   1) Student
   2) Stationery Staff
   3) System Administrator

3. **Basic Flow**

   3.1 Basic Flow

   1) In case of a student user, if the student is selling an item, he/ she will be notified every time a new bid is placed on their item. While in case of a student buying an item, he/ she will receive a notification if the item they have placed a bid for, gets a new bid higher than the users.
   2) The student seller will also receive a notification 7 days after the last bid has been placed on his/ her item, whereas, the highest bidder will be notified when the bid ends.
   3) A student renter will receive notification when the due date of returning the item is close and if an item is available which he/she had previously put on hold. Also, the student renter will receive a notification in case he/she has not returned the item, before the due date, informing about the fine to be paid.
   4) In case of a staff user, he/ she will receive a notification when the stock of an item goes below the set threshold value.

   3.2 Alternate Flows

   3.2.1 First Alternate Flow:

   If by any means, a student does not receive notifications for the said cases, he/ she may contact the system administrator via email, to get the problem troubleshooted.

4. **Pre-Condition:**
   The user must be logged into the system.

5. **Post Condition:**
   The user will know of activity related to his/ her account and can further work accordingly.

Use Case Specification: Renting

1. **Renting**

1.1 Brief Description:

This use case allows the students to rent an item for as long as 3 months, with charges varying by the genre of the book or the type of the item.

2. **Actors**

1) Student
2) Stationery Staff
3) System Administrator

3. **Basic Flow**

3.1 Basic Flow

1) The renter can select an item available on rent by choosing the "Rent" option, if and only if he/ she doesn't have a pending return.
2) He/ she will be issued a receipt, which he/ she must show in order to collect the item.
3) The renter must return the item on/ before the due date.

3.2 Alternate Flows:

3.2.1 First Alternate Flow:

1) The renter has not yet returned an item.
2) The renter will not be allowed to rent another item.

3.2.2 Second Alternate Flow:

1) The item the user wishes to rent an item which has been already rented by another renter.
2) The user can put the item on hold, so when the item will be available to rent again, the user will be notified.

3.2.3 Third Alternate Flow:

1) The renter has not returned an item after the due date.
2) The renter will be fined based on the genre of the book or the type of the item.

4. **Pre-Condition:**
   The user must login into the system.

5. **Post Condition:**
   The renter will be able to get the item for a limited period of time

Use Case Specification: Bidding

1. Bidding

1.1 Brief Description:

This use case provides the functionality of bidding on a handed down item, in order to facilitate the process of buying and selling between the senior and junior students.

2. Actors

1) Student Seller
2) Student Buyer
3) System Administrator

3. Basic Flow

3.1 Basic Flow

1) A student buyer has to bid on an item placed on sale by the student seller by choosing the "Bid" option.
2) The student buyer must bid higher than the previous bidder, after which the student seller will approve the buyer. Only after the approval the bid will be considered.
3) The highest bidder, upon decision of the student seller, will be considered the winner.
4) The bidder can pay via google pay, Paytm or by cash, and the student buyer can collect the item from the student seller on their convenience.

3.2 Alternate Flows

3.2.1 First Alternate Flow:

1) The student seller doesn't approve of the student buyer.
2) The student buyer will not be allowed to place a bid on the item sold by the student seller.

3.2.2 Second Alternate Flow:

1) No bids are placed on an item being sold.
2) The item will be removed.
3) The student seller will be notified that he/ she may post the item again, with different or same specifications.

4. **Pre-Condition:**
   The user must login into the system.

5. **Post Condition:**
   The student seller and buyer will receive notifications for the same. The highest bidder will get the handed down item.

Use Case Specification: Search Box

1. **Search Box:**
   1.1 Brief Description:
   This use case describes the flow for searching items.
2. **Actors**
   1) Student
   2) Stationery Staff
   3) System Administrator

3. **Basic Flow**
   3.1 Basic Flow

   1) The user can access the search box from any page from the top of the page.
   2) The user can type in the search bar, to get the relevant results.
   3) If the system detects a spelling error, the system will display related possibilities of the word.

   3.2 Alternate Flows:

   3.2.1 First Alternative Flow:

   1) If the user tries searching without typing anything in the search bar, then no action will be taken.

   3.2.2 Second Alternative Flow:

   1) If a user searches an item, and if there is a network / database connectivity issue, then on clicking the search button, an error message will be prompted, and the user needs to reload the page after connectivity, then type and search again.

   3.2.3 Third Alternative Flow:

   1) If an item is not found in the database then 'Item Not Found' will be displayed.

   3.2.4 Fourth Alternative Flow:

   1) If in case the session expires, the user will be prompted to login again.

4. **Pre-Condition:**
   The user must login into the system.

5. **Post Condition:**
   The relevant result will be displayed.

Use Case Specification: Posts Management

1. **Posts Management**

   1.1 Brief Description:

   This use case describes the flow for posting an advertisement; for an item

2. **Actors**

   1) Student Seller

3. **Basic Flow**

   3.1 Basic Flow

   1) The user selects on the "Post an advertise"
   2) The user fills in the proper details (initial bid value, description...)
   3) The user can select Template, else the default template will be used.
   4) Selecting the 'Create Post' option, the final post will be generated and it will be displayed to the user.
   5) On selecting the 'Post' option, the post will be uploaded.

   3.2 Alternate Flows

   3.2.1 First Alternate Flow:

   1) The user doesn't enter all the mandatory fields in the form for creating a post.
   2) After choosing the 'Create Post' option, the validation is fired and the user is asked to fill in the required fields.

   3.2.2 Second Alternative Flow:

   1) After selecting the 'Create Post' option, if there is a network issue then an error page will be displayed.
   2) After connectivity, the user must reload the page and fill in the details again.

   3.2.3 Third Alternative Flow:

   1) While selecting the 'Create Post/ Post' option, if session expires, then user must login again (Continues from where session ended)

4. **Pre-Condition**
   The user must login into the system.

5. **Post Condition**
   After successful posting, a user will be notified with the message ‘Posted Successfully’, and other post details.

Use Case Specification: Chat Box

1. **Chat Box**
   1.1 Brief Description:
   It describes the functionalities of group chat; provided for student buyers.
2. **Actors**
   1) Student Buyer
   2) Student Seller

3. **Basic Flow**
   3.1 Basic Flow

   1) After making a bid, the user will be added into group chat
   2) Users will be allowed to see other bidders' details (e.g. Contact number, name)
   3) As soon as a new higher bid arrives/new bidder arrives, notification will be sent to the group.
   4) Users can communicate in the group chats for queries to be addressed.
   5) The user can choose to exit the bidding and the group chat, by selecting the exit group option.

   3.2 Alternate Flows

4. **Pre-Condition**
   The user must choose to make a bid.

5. **Post Condition**
   User will be entered into the bid

Use Case Specification: Order

1. **Order**

   1.1 Brief Description:

   This use case allows the Student Buyer to place their order for a particular stationary item.

2. **Actors**

   1) Student Buyer
   2) Stationery Staff
   3) System Administrator

3. **Basic Flow**

   3.1 Basic Flow

   1) The Student buyer can select an item available by selecting the "Add to Cart" option.
   2) The buyer can choose the desired quantity of an item before adding it to cart.
   3) He/ she will be directed to the payment section.
   4) He/ she will be issued a receipt, which he/ she must show in order to collect the item.

   3.2 Alternate Flows

   3.2.1 First Alternative Flow:

   1) The item is not currently available.
   2) The Student buyer will be shown an appropriate message.

   3.2.2 Second Alternative Flow:

   1) The payment is not successful.
   2) The Student buyer will be shown an appropriate message and redirected to the previous page.

4. **Pre-Condition**

   The user must login into the system.

5. **Post Condition**

   The Student Buyer will receive an invoice and then collect their order from the Stationary Staff.

Use Case Specification: Payment

1. **Payment**

   1.1 Brief Description:

   This use case allows the student buyer to make a payment for an item bought/rented from the Stationary Shop/Student seller.

2. **Actors**

   1) Student
   2) Stationery Staff
   3) System Administrator
   4) Payment Gateway

3. **Basic Flow**

   3.1 Basic Flow

   1) The Student Buyer must use the payment module, in order to buy an item.
   2) He/she will be directed to the payment module based on his choice of paying by cash or via online modes.
   3) Invoice will be generated, which can be downloaded by the user in the pdf format.

   3.2 Alternate Flows

   3.2.1 First Alternative Flow:

   1) The payment is not successful.
   2) The Student buyer will be shown an appropriate message and redirected to the previous page.

4. **Pre-Condition**

   The user must login into the system.

5. **Post Condition**

   The Order/Renting will be successful and Invoice will be generated.

Use Case Specification: History of Orders

1. **History of Orders**

   1.1 Brief Description:

   This use case allows the student buyer to view previously placed orders.

2. **Actors**

   1) Student Buyer
   2) Stationery Staff
   3) System Administrator

3. **Basic Flow**

   3.1 Basic Flow

   1) The Student Buyer/Stationery Staff can access his/ her history of orders from their respective profile page.
   2) The history of orders can be viewed using available filters.

   3.2 Alternate Flows

   3.2.1 First Alternative Flow:

   1) The Student Buyer hasn't placed any orders yet.
   2) The Student buyer will be shown an appropriate message.

4. **Pre-Condition**

   The user must buy an item once.

5. **Post Condition**

   The student buyer/ stationery staff will be able to assess their respective past orders.

Use Case Diagram