**Design for** **Category Part**

The category design part has the following features.

**Class hierarchy**



**Class Diagram**



**Algorithm**

As described above the classes are category, fashion, electronics&computer, furniture, PostItem, RemoveItem, books, men’s, women’s, kid’s&baby’s, mobilePhones, tablets, computer, Tvs, compAccessory, Fiction, science, cloth, shoe.

Algorithm works as following.

When seller wants to put an item under a specific category list:

***Algorithm 1:***

* Select postItem
  + The callerCategry method calls the category class which displays the name list of its first-generation classes.
* If (Select fashion class) among the classes displayed above.
  + Then fashion class called and displays its first-generation classes name list.
  + If (select men’s class name list)
    - Then men’s class is called and displays its first-generation classes name list.
    - If (select cloth class name)
      * Then the item will be inserted into men’s cloth category database table.
      * And set contract time – the specified period of the time for the item to be on the website.
    - Else (select shoes class name)
      * Then the item will be inserted into men’s shoe category database table.
      * And set contract time – the specified period of the time for the item to be on the website.
  + Else if (select women’s class name)
    - Then women’s class is called and displays all its first-generation classes name list.
    - If (select cloth class name)
      * Then the item will be inserted into women’s cloth category database table.
      * And set contract time – the specified period of the time for the item to be on the website.
    - Else (select shoes class name)
      * Then the item will be inserted into women’s shoe category database table.
      * And set contract time – the specified period of the time for the item to be on the website.
  + Else (select kid’s&baby’s class name)
    - Then kid’s&baby’s class is called and displays its first-generation classes name list.
    - If (select cloth class name)
      * Then the item will be inserted into kid’s&baby’s cloth category database table.
      * And set contract time – the specified period of the time for the item to be on the website.
    - Else (select shoes class name)
      * Then the item will be inserted into kid’s&baby’s shoe category database table.
      * And set contract time – the specified period of the time for the item to be on the website.
* Else if (select Electronics and Computer class name)
  + Then Electronics and Computer class is called and displays its first-generation classes name list.
  + If (select MobilePhone class name)
    - Then the item will be inserted into MobilePhone category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
  + Else if (select Computer class name)
    - Then the item will be inserted into Computer category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
  + Else if (select Tablets class)
    - Then the item will be inserted into Tablet category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
  + Else if (select TV’s class)
    - Then the item will be inserted into TV’s category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
  + Else (select CompAccessory class name)
    - Then the item will be inserted into ComputerAccessory category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
* Else if (select Books)
  + Then books class is called and displays its first-generation classes name list.
  + If (select Science class name)
    - Then the item will be inserted into Science category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
  + Else if (select Fiction class)
    - Then the item will be inserted into Fiction category database table.
    - And set contract time – the specified period of the time for the item to be on the website.
* Else (select Furniture)
  + Then the item will be inserted into Furniture category database table.
  + And set contract time – the specified period of the time for the item to be on the website.
* PostDetailFromDb method in PostItem class retrieves and displays all the product lists under a specific category.

When the contract time for the seller item is finished (nearly to be finished), the system senses and goes to remove an item.

***Algorithm 2:***

* For (contract time not finished)
  + If (item is finished in the stock)
    - Then the system removes that item from the category view.
  + If (The buyer prefers to buy an item i.e., that item goes to the shopping cart)
    - Then the system removes that item from the category view.
  + If (the contract time is nearly to be finished for cloth item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the cloth class
        + The system removes that specific item from the cloth category database tables.
  + Else If (the contract time is nearly to be finished for shoe item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will sustain for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the shoe class
        + The system removes that specific item from the shoe category database tables.
  + Else If (the contract time is nearly to be finished for Computer item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the Computer class
        + The system removes that specific item from the Computer category database tables.
  + Else If (the contract time is nearly to be finished for MobilePhone item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the MobilePhone class
        + The system removes that specific item from the MobilePhone category database tables.
  + Else If (the contract time is nearly to be finished for Tablets item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the Tablets class
        + The system removes that specific item from the Tablets category database tables.
  + Else If (the contract time is nearly to be finished for TV’s item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the TV’s class
        + The system removes that specific item from the TV’s category database tables.
  + Else If (the contract time is nearly to be finished for CompAccessory item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the CompAccessory class
        + The system removes that specific item from the Computer Accessory category database tables.
  + If (the contract time is nearly to be finished for Fiction item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the Fiction class
        + The system removes that specific item from the Fiction category database tables.
  + Else If (the contract time is nearly to be finished for Science item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the Science class
        + The system removes that specific item from the Science category database tables.
  + Else if (the contract time is nearly to be finished for Furniture item type)
    - Then the system will notify the seller
    - If (the seller agrees to increase the contract time)
      * The item will have sustained for incremented amount of the contract time.
    - Else (the seller does not agree to increase the contract time)
      * The RemoveItem class will be called from the Furniture class
        + The system removes that specific item from the Furniture category database tables.