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

The category design part has

**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, novels, 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 Novels class )
    - Then the item will be inserted into Novels 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.

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:*

* 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 sustained for incremented amount of the contract time.
  + Else(the seller agrees to increase the contract time)Then
    - The RemoveItem class will be called from the cloth class
      * The system removes that specific item from the category database tables.
* Else