E-shop framework
Specification

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1. Introduction

This document can be used as specification for e-shop framework. Application should provide basic e-shop functionality as managing:

- products
- products categories
- files – images (additional information for products)
- invoices
- orders
- users

Framework should handle and store several information about warehouse state. Application is divided to two main parts, frontend and backend. Only authorized users can access backend and change information stored. For each element (module) should be stored following data:

Users:

- username - name used as login
- password - user password
- email - user email

Products:

- name - product name
- price - price of product
- date from - date since the product is supposed to be in price list
- date to - date since the product is not supposed to be in price list
- on stock - if product is on stock
- photo - product image

Categories: they has hierarchical structure

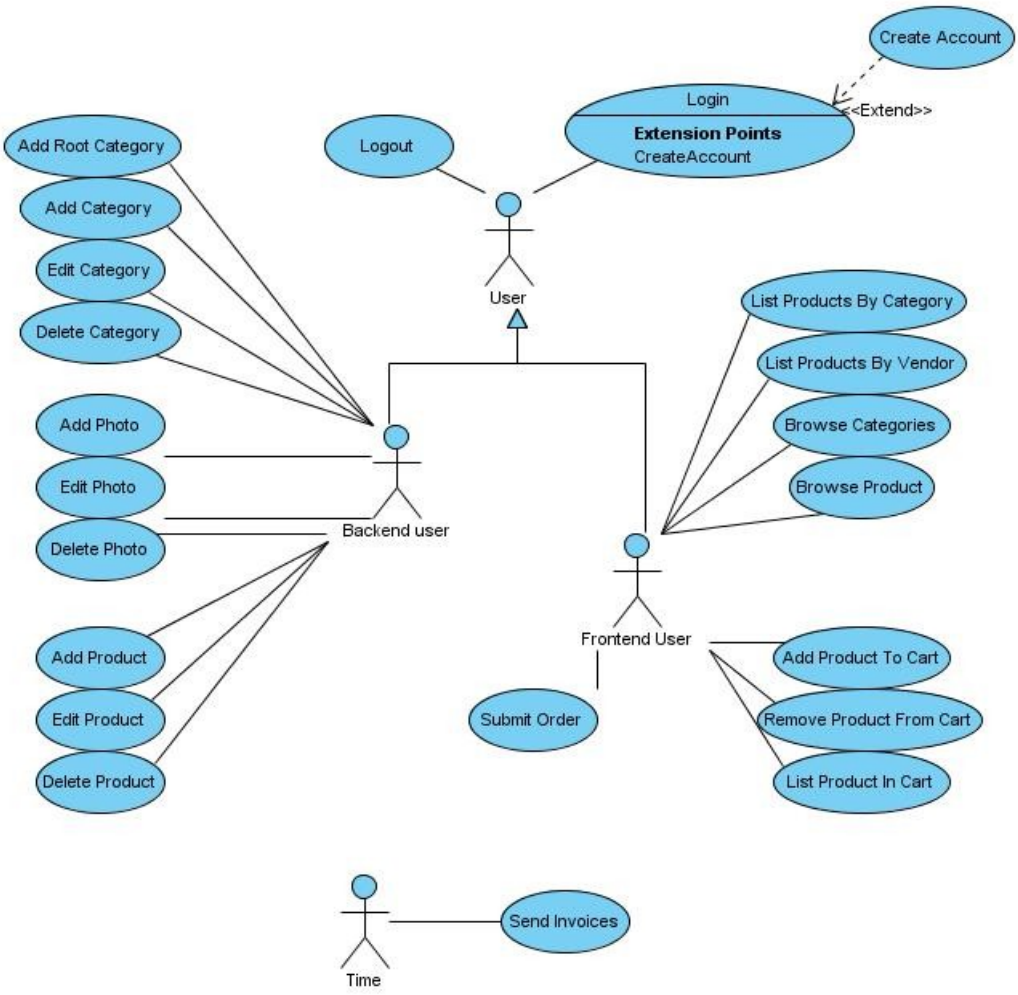
- name - category name

– parent - parent of category

Photos:

– name - name of photography
– description - short description about photography

2. Use Cases



Add Category – Use Case

Main	
Super Use Case	
Author	Martin
Date	16.3.2009 23:00:07
Brief Description	User adds some categories where later products will be assigned
Preconditions	User is logged in Some category have to be selected
Post-conditions	Category is created
Flow of Events	1. Select "add category" option 2. Display information form 3. While don't fill necessary category information 3.1. Display pre-filled form 4. Create category

Edit Category – Use Case

Main	
Super Use Case	
Author	Martin
Date	16.3.2009 23:07:43
Brief Description	User edit category parameters
Preconditions	User is logged in
Post-conditions	Category is updated
Flow of Events	1. Select "edit category" option 2. Display pre-filled form with category information 3. While don't fill necessary category information 3.1. Display again pre-filled form 4. Update category

Delete Category – Use Case

Main	
Super Use Case	
Author	Martin
Date	16.3.2009 23:09:04
Brief Description	User deletes category
Preconditions	User is logged in Some category have to be selected

Post-conditions	Category is deleted
Flow of Events	1. Selects "delete category" option 2. Ask for confirmation 3. If confirm action 3.1 Delete category and dependencies, but not products assigned to category

Add Product – Use Case

Main	
Super Use Case	
Author	Martin
Date	16.3.2009 23:12:57
Brief Description	User adds product into application
Preconditions	User is logged in User has product module selected
Post-conditions	Product is created
Flow of Events	1. Starts when select "add product" option 2. Display information form 3. While don't fill necessary category information 3.1. Display pre-filled form 4. Create product

Edit Product – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 20:55:32
Brief Description	User edits product
Preconditions	User is logged in User has selected some product
Post-conditions	Product is updated
Flow of Events	1. Starts when select "edit product" option 2. Display information form 3. While don't fill necessary category information 3.1. Display pre-filled form 4. Update product information

Delete Product – Use Case

Main	
Super Use Case	

Author	Martin
Date	17.3.2009 20:58:16
Brief Description	
Preconditions	
Post-conditions	
Flow of Events	1. Select "delete product" option 2. Ask for confirmation 3. If confirm action 3.1 Delete product and dependencies

Add Photo – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 20:45:19
Brief Description	Upload product photo at server
Preconditions	User has photo module selected
Post-conditions	Product photo is uploaded Thumbnails is created
Flow of Events	1. Select "add photo" option 2. Display information form 3. While don't fill necessary photo information 3.1. Display pre-filled form 4. Upload photo 5. Create thumbnails from photo

Delete Photo – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 20:51:03
Brief Description	Deletes photo from server
Preconditions	User is logged in User has photo module selected
Post-conditions	Photo is deleted
Flow of Events	1. Select "delete photo" option on some photo 2. Ask for confirmation 3. If confirm action 3.1 Delete photo

Edit Photo – Use Case

Main

Super Use Case	
Author	Martin
Date	17.3.2009 20:48:32
Brief Description	Edits product photo
Preconditions	User is logged in
Post-conditions	Photo information is updated
Flow of Events	1. Starts when select "edit photo" near some picture 2. Display photo information 3. While don't fill necessary category information 3.1. Display pre-filled form 4. Update image data

Login – Use Case

Main

Super Use Case	
Author	Martin
Date	16.3.2009 22:53:37
Brief Description	Log user into application
Preconditions	User is not logged in
Post-conditions	User is logged in
Flow of Events	1. Select login option 2. Show login form Extension Point: Create Account 3. While user fills correct login information 3.1. Show message about invalid information 4. User is logged in

Extension Points

CreateAccount

Documentation:

Logout – Use Case

Main

Super Use Case	
Author	Martin
Date	16.3.2009 23:11:27
Brief Description	Log off user from application

Preconditions	User is logged in
Post-conditions	User is logged off
Flow of Events	1. Select "logout" option 2. Ask for store unsaved data 3. Close user session 4. Log off user 5. Redirect user to login page

Browse Categories – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:11:08
Brief Description	Displays all categories
Preconditions	None
Post-conditions	Displays all categories
Flow of Events	1. Start when user select "categories" option 2. Lists all categories to user

Browse Product – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:12:19
Brief Description	Lists all product to user. Optionally they should be split to several pages
Preconditions	None
Post-conditions	Shows page with listed products
Flow of Events	1. Select "all products" option 2. Lists all product to user

List Product In Cart – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:20:07

Brief Description	Lists all product in his cart
Preconditions	Has some products in cart
Post-conditions	Lists all products to user
Flow of Events	1. Starts where user select "list cart" option 2. Lists all products assigned in his cart

Add Product To Cart – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:14:50
Brief Description	Adds given amount of product to user cart
Preconditions	User has selected some product
Post-conditions	Products is added to cart
Flow of Events	1. Start when user select "add to cart" option 2. Adds given amount of product to cart

Remove Product From Cart – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:17:50
Brief Description	Removes product form cart
Preconditions	User has non-empty cart User has listed all products in his cart
Post-conditions	Product is removed
Flow of Events	1. Starts when user select "delete from cart" option 2. Ask for confirmation 3. If user confirm action 3.1. Removes product from cart

Submit Order – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:21:19
Brief Description	Check user products in his cart and check if all products is

	on stock
Preconditions	
Post-conditions	
Flow of Events	1. Start when user select "buy" option 2. Check all products if all of them are on stock and if not displays notification to user 3. If user confirm order anyway 3.1. Order products for user and send him confirmation email 4. If user confitm email 4.1. Reserve product for user

List Products By Category – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:04:20
Brief Description	Displays products in selected category
Preconditions	None
Post-conditions	Displays products to user
Flow of Events	1. Starts where user select some category 2. Displays all products assigned to selected category

List Products By Vendor – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:07:25
Brief Description	Displays products in selected category
Preconditions	None
Post-conditions	Displays products to user
Flow of Events	1. Starts where user select some vendor 2. Displays all products assigned to selected vendor

Send Invoices – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 21:27:42
Brief Description	Send not finished invoices and send them to customers
Preconditions	None
Post-conditions	All unfinished invoices are sent
Flow of Events	1. Start when is end of month 2. Check if there are some unfinished invoices and send them to customers

Create Account – Use Case

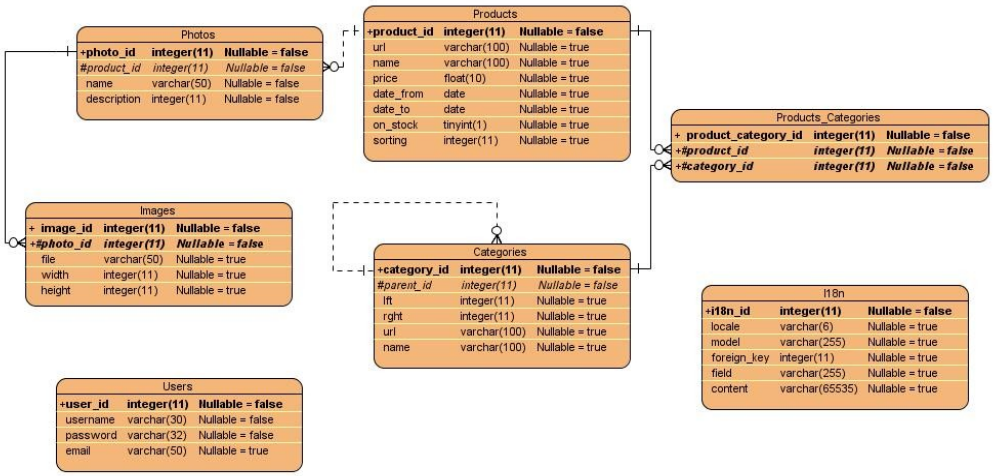
Main	
Super Use Case	
Author	Martin
Date	16.3.2009 23:38:20
Brief Description	Create account for user
Preconditions	None
Post-conditions	User account is created
Flow of Events	1. Select "create account" option 2. Display user information form 3. While user don't fill all required information 3.1 Display form to user with affore filled information 4. Create user account and send account information and activation instructions to user's email provided in registration form 5. User confirm creating account in registration email by clicking on link in this email 6. Process request and acitvate account

Add Root Category – Use Case

Main	
Super Use Case	
Author	Martin
Date	17.3.2009 20:35:30
Brief Description	Add root category into category tree
Preconditions	User has opened manage categories module
Post-conditions	Root category is created
Flow of Events	1. Select "add root category" option 2. Display from with category options 3. While user don't fill all required information

3.1. Display pre-filled form 4. Create root category

3. Entity-relationship diagram



Used technologies:

- PHP MVC framework – CakePHP
- MySql
- Javascript framework (Prototype, Scriptaculous)