

# Simple e-Commerce Store

# simplefakestore.com

# **Function Specification**



2008-10-18 Version 1.1

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# Overview

This scope document is for a sample site to demonstrate the effectiveness of storyboarding and therefore to illustrate why we need specifications.

For the sake of this example, we'll look at a simple website with a e-commerce store with a catalogue of products. The catalogue entries will be visible to the public, but only the site-owner will be able to make modifications to the catalogue via a secure interface. Visitors should be able to buy multiple products online and be able to pay with credit card.

Please note that this is NOT a template, but merely a sample. It is meant to inspire, and to aid you in the creation of a solid Request for Proposal (RFP). If your RFP is not solid, then you will receive a wide range in quotes from vendors, which will be based on their interpretation of the RFP and their perceived risk. A solid RFP on the other hand will show exactly what your expected outcome is, and if you gave it to multiple vendors, every one would give you a quote based on exactly the same end product. With a solid RFP, you will also receive the end-product that you expected.

# Terminology

It is assumed that the reader of this document is familiar with basic web terms. Additional definitions that could come in handy:

- **Shopping cart**: An internet based system designed to allow an online shopper to collect items and then, when the user is ready, to purchase the chosen items in a single transaction.
- Session: A continuous period of time during which a user's browser is viewing Web pages or a Web application within the same server or domain.
- **SSL**: Secure Sockets Layer: cryptographic protocols which provide secure communications on the Internet

# Main Features

Simplefakestore.com is an e-commerce store allowing visitors to buy products from the catalogue. Individual functions include:

- Browse product categories
- Browse products
- Search products
- View a products details (with up to one image and one thumbnail)
- Have one featured product
- Add products to shopping cart



• Checkout / pay for items in shopping cart

Administrative functions include:

- Add / edit / delete categories
- Add / edit / delete products
- View historical transactions

# **Target Audience**

For the sake of this example, the website will be selling generic widgets. The target audience of the site would be the general consumer who is interested in purchasing widgets.

# **Technical Considerations**

For security reasons, preference is given to PHP and MySQL on a \*NIX server with Apache as the web server. Furthermore, the hosting environment is to be secured to currently accepted security standards for public production websites.

All code and interfaces are to follow current web development best practices.

Pages accepting credit card details are to be secured with SSL, and any posting to the merchant gateway is to be done securely via cURL. No credit card details are to be stored in the database locally.

# Prerequisites

In order to accept online credit card payments, the client will require a merchant account. For the sake of this specification, we will assume a merchant account with a standard SOAP server and a delivered SOAP client in PHP to communicate with the SOAP server securely.

# Sitemap

Main Navigation: (consisting primarily of content-rich sections, vertical on the left)

- Home
- About Us
- Products (Catalogue)
  - Categories (when in product sections)
- Shopping Cart
- Contact Us



• Search (not a regular menu item but common design element)

#### Sub-Navigation:

Some Main sections will have sectional sub-navigation. The sub-navigation menus may appear on the right column. This section is identified as sub links within the Main navigation.

#### **Support Navigation**: (along the bottom of every page)

- Top
- Privacy
- Site Map
- Contact Us

#### Administrative Navigation:

When the site administrator is logged in, the Main Navigation will change to the following:

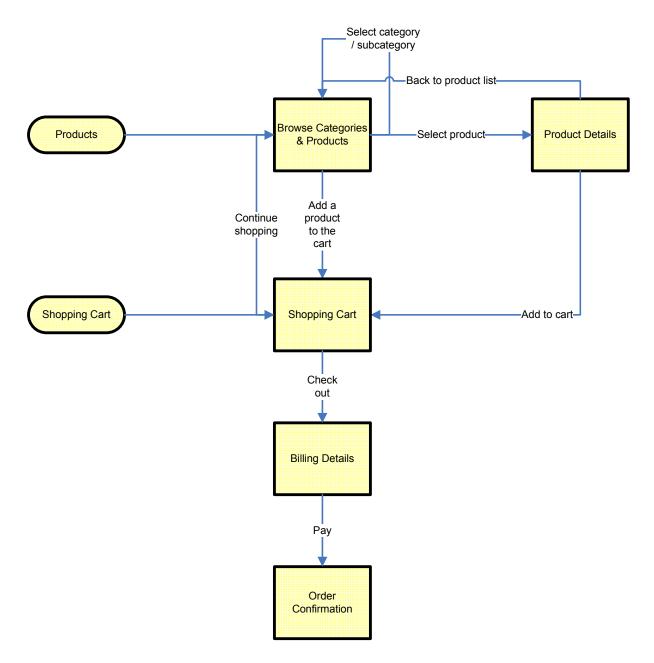
- Home
- Products
- Transactions
- Logout

# **High-level Flow**

Many of the pages of the site will be static and therefore require no further explanation. The administrative area of the site will follow standard editing interfaces.

The remaining complicated areas that require further defining are the functions in the product catalogue and shopping cart. Below is the high-level flow for the functions a visitor / customer can perform in these areas:





# Specific Requirements

### Localization

The business of the website is located in the USA. All prices are in USD (United States Dollars).



# Shipping

Shipping will only be offered to USA and Canada. Other countries cannot order at this time.

Shipping costs will be calculated using a configuration table based on the total weight of the products. This requires each product item to have a weight in the system.

Destination	0-5 lb	5.1-10 lb	10.1 – 20 lb	20.1 lb +
Canada	\$ 5.50	\$ 7.50	\$ 9.50	\$ 11.50
USA	\$ 3.50	\$ 4.50	\$ 5.50	\$ 6.50

# **Product Images**

Product images will be treated as special objects. When an image file is uploaded, the server is to dynamically create 2 images of it by cropping and resizing the source image into a large detail image and a small thumbnail image. These images are to be renamed on the server to IMG + primary key of the product (to four characters) + .JPG for the detail image and THUMB + primary key (to four characters) + .JPG for the thumbnail. (for example, the image for product 5 would be /images/img0005.jpg and it's thumbnail would be /images/thumb0005.jpg).

# **Product Categories**

Each product can only be in one category and each category can only be in another category or the top category. It is essential that no products or categories are orphaned. Therefore the following rules will apply to administration:

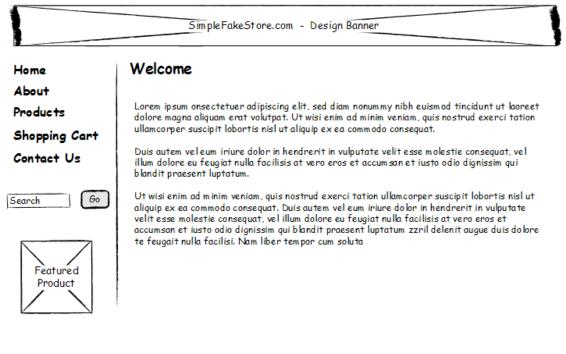
- You cannot delete products you can only mark them as inactive. If a product were deleted after a sale, the historical sales data would no longer make sense.
- You cannot delete a category that has sub-categories or products. All subcategories and products need to be removed first.



# Wireframe

#### A001 : Homepage

Note that the design structure will be common across most pages of the site using common headers and footers.



Top Home Privacy Sitemap Contact



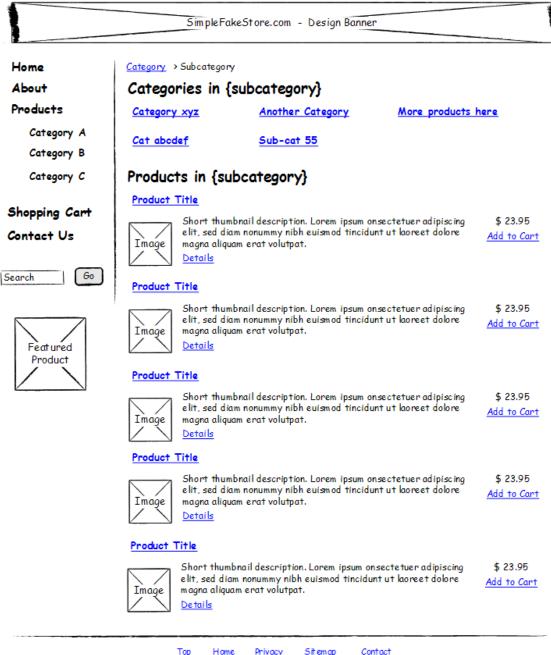
#### A002: About Us

ome	About Us
bout	
oducts	Lorem ipsum onsectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud
hopping Cart	exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.
ontact Us	Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accum <i>s</i> an et iusto odio dignissim qui blandit praesent luptatum.
arch Go	Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut
Featured Product	aliquip ex ea commodo consequat. Duis autem vel eum iriure do lor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta
Featured	velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis



#### A003: Browse Product Categories / Subcategories, and Products

Summary list of sub-categories and products in current category / subcategory



Top Home Privacy Sitemap



### **A004: Search Results**

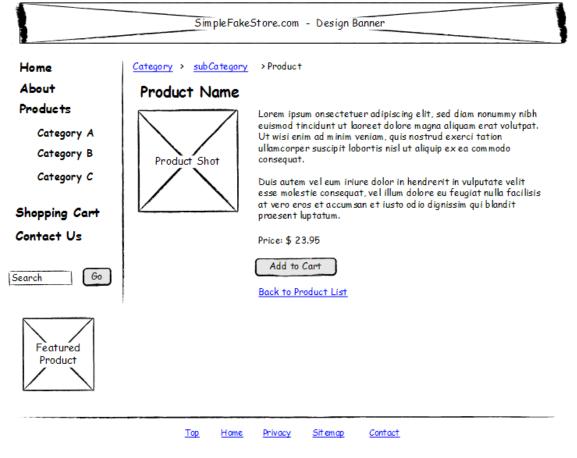
Summary of products matching search query

Home	Search Results for {xyz terms}	
About Products	Product Title	
Category A Category B	Short thumbnail description. Lorem ipsum onsectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut koreet dolore magna aliquam erat volutpat. Details	\$ 23.95 <u>Add to Cart</u>
Category C	Product Title	
hopping Cart ontact Us	Short thumbnail description. Lorem ipsum onsectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut koreet dolore magna aliquam erat volutpat. Details	\$ 23.95 <u>Add to Cart</u>
arch Go	Product Title	
Featured Product	Short thumbnail description. Lorem ipsum onsectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut koreet dolore magna aliquam erat volutpat. Details	\$ 23.95 <u>Add to Cart</u>

<u>Top Home Privacy Sitemap Contact</u>



#### **A005: Product Details**





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### **A010: Shopping Cart**

Shopping Cart					
Item Name	Qty	Each	Price		
Product Name		23.95	23.95		
Another Product	2	12.50	25.00		
Total			48.95		
(Undata Quantitian)		Cha	kaut		
Opdate Quantities		Chec	Rout		
	Item Name Product Name Another Product	Item Name   Qty     Product Name   1     Another Product   2     Total	Item Name     Qty     Each       Product Name     1     23.95       Another Product     2     12.50       Total	Item NameQtyEachPriceProduct Name123.9523.95Another Product212.5025.00Total48.95	Item NameQtyEachPriceProduct Name123.9523.95Another Product212.5025.00Total48.95



### A011: Checkout

Main payment screen to collect billing and shipping information. This is a secure page and will post the credit card information securely to the merchant gateway. Depending on the response received from the merchant gateway, the purchase will either be declined or approved.

lome	Checkout				
About	Chiconour		NB:	This is a	
roducts	Sub to tal	48.95	secu page	re HTTPS	
	Tax	0.49	page		
hopping Cart	Total	49.44			
Contact Us	Billing Details				
	Credit Card	AMEX 💌			
earch Go	Name on Card				
	Card No				
	Expiry				
$\wedge \land$	Shipping Detai	ls			
Featured	Firstname				
Product	Lastname				
$\angle$	Email				
	Phone No	1			
	Address		-1		
			1		
	City	l			
	State				
	Zip Code				
	Country				
		Purchase			
		Purchase			

Upon successful payment for the items in the cart, the customer is to receive an email receipt summarizing the items purchased: Order Confirmation



Another Product	2	12.50	25.00
Subtotal Shipping Total			48.95 5.50 54.45
Sold to:			
Patricia Amor 4568 Seneca Drive Salem, OR 97301			
Please allow 2-3 week	s for	delivery.	
SimpleFakeStore.com emailsupport@simplefat http://www.simplefakes 1 (888) 555-1212			

### A012: Payment confirmation

	SimpleFakeStore.com - Design Banner
Home About Products Shopping Cart Contact Us	Order Confirmation Thank you for your purchase. Your order confirmation number is: XQRTSDW A receipt has been sent to you via email to the email address you supplied: address@domain.com Please allow 2-3 weeks for delivery.
Search Go Featured Product	

<u>Top Home Privacy Sitemap Contact</u>



### A020: Contact Us

me	Contact Us
out	Please fill in the convenient form below, and one of our helpful customer service representatives will get back to you shortly.
ducts	
opping Cart	Full Name
tact Us	Phone No.
	Email
ch Go Featured Product	Message Send



£

### A021: Privacy Policy & Security Statement

	SimpleFakeStore.com - Design Banner
Home	Privacy Policy
About Product <del>s</del>	Lorem ipsum onsectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut koreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ulkamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.
Shopping Cart Contact Us	Duis autem veleum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum.
Search Go	Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta
Featured Product	Security Statement Lorem ipsum onsectetuer adipiscing elit, sed diam nonum my nibh euism od tincidunt ut koreet dolore magna aliguam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ulkamcorper suscipit lobortis nisl ut aliguip ex ea commodo conseguat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie conseguat, vel illum dolore eu feugiat nulla facilisis at vero eros et accum san et iusto odio dignissim qui bandit praesent luptatum. Ut wisi enim ad minim veniam, quis nostrud exerci tation ulkamcorper suscipit lobortis nisl ut aliguip ex ea commodo conseguat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie conseguat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta

<u>Top Home Privacy Sitemap Contact</u>



### A090: Administrative Login

All administrative functions will be secured by a username and password. Each page within the admin needs to ensure for itself that it is still secure.

	SimpleFakeStore.com - Design Banner
Home About Products Shopping Cart Contact Us	Administration Login Username Password Login
Featured Product	
001: Admin Ho	Top Home Privacy Sitemap Contact me SimpleFakeStore.com - Design Banner
	Simpler axes of e.com - Sesign banner
Home About Product <del>s</del>	Welcome to Administration No of Products: 56



### **B010: Category Admin Summary**

	SimpleFakeStore.com - Design Banner
Home About Products Shopping Cart Contact Us	Category Administration Top Category / Root <u>First Main Category</u> <u>A sub-category</u> <u>Another sub-category</u> Second Main Category
Admin Home Categories Products Sales	Third Main Category Some sub-category <u>A sub-sub category</u> Last Main Category Add New

### **B011: Category Admin Detail**

SimpleFakeStore.com - Design Banner					
Home About Products Shopping Cart Contact Us Admin Home Categories Products Sales	Add / Edit Co Category Name Sub-Category of Active	Advanced Information Category selector Save			



### **B020: Product Admin Summary**

Home	Produ	uct Administration		
About				
Products	Code	Product Name	Price	Action
Shanning Cont	PR1	Broker Unit Terminal	14.99	Edit
Shopping Cart	PR2	General Computer	7.99	Edit
Contact Us	QR3	Special Client Mark II	98.50	Edit
	BG5	Linux Generation Mark II	5.00	Edit
Admin Home	FF4	Terminal Extreme	54.33	<u>Edit</u>
Categories	Ad	d New		
Products				
Sales	1			

#### **B021: Product Admin Details**

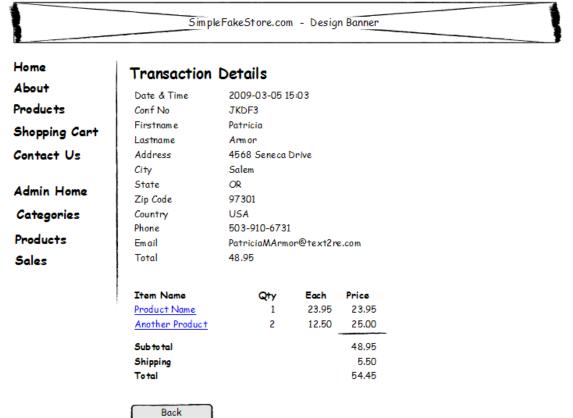
	Sim	pleFakeStore.com - Design Banner
Home	Add / Edit	Product
About		
Products	Code	DK7
Shopping Cart	Category	Category selector
Contact Us	Name	Advanced Information
Admin Home	Description	Lorem ipsum onsectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut kooreet dolore magna aliquam erat
Categories		volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper
Products		suscipit lobortis nisl ut aliquip ex ea commodo consequat.
Sales	Im age	Image
	New Image Upload	Browse
	Price	15.67
	Weight	2.80 Lb (weight needed to calculate shipping charges)
	Active	J
	Featured	Note that only ONE product can be featured at a time
		Save



Home	Historic	Sales		
About	Date	Name	Amount	Actions
Products	2009-03-05	Robin D. Knight	540.13	Details
Shopping Cart	2009-03-05	Clarence A. Perkins	21.03	Details
	2009-03-01	Thelma E. Marshall	55.99	Details
Contact Us	2008-12-28	William M. Perez	188.88	Details
	2008-12-27	Coretta D. Nichols	2.50	Details
Admin Home	2008-11-01	Victoria L. West	1,368.22	Details
<b>6</b>	2008-10-31	Paul E. Mika	982.00	<u>Details</u>
Categories	2008-10-30	Alonzo K. Mcdevitt	68.12	Details
Products	2008-10-30	Mercedes D. Nelson	77.44	<u>Details</u>
Sales				

#### **B030: Historical Sales Summary**

#### **B031: Historical Sales Detail**





# Data Definitions

The following data definitions are to describe the functional requirements of the data. The programming team will be responsible for choosing the specific data types to achieve the desired result. Please note also that there are no references to primary key identifiers, etc - these are left for the database architect and should be considered standards requirements.

### Categories

Variable	Туре	Notes	
categoryName100 char textName of the category		Name of the category	
active 0 or 1		1 if active, and 0 if inactive	
fkParent	Integer Foreign key into it's parent categ top-level categories with no parent		

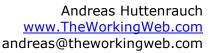
#### Variable Type Notes fkCategory Foreign key into Category Integer SKU productCode 10 char text 100 char text Name of the product productName description Text Full text description 0 or 1 Images will be treated as special objects image see Specific Requirements above. The image field simply keeps a value of 0 or 1 representing whether or not the product has an image and thumbnail or not. Price in USD price Real weight Real Weight in lb (pounds) for calculating shipping 1 if active, and 0 if inactive active 0 or 1 1 if featured, 0 if not. Please note that only featured 0 or 1 ONE product can be the featured one. When setting this flag to one, you need to zero out this flag of all other products

# **Products**

# **Shopping Carts**

We will keep a shopping cart set of records for all purchases, whether abandoned or successful. A regular cleanup job will need to delete shopping carts that were abandoned as there is no other data of value if you don't have contact details for the customer that attempted the purchase.

Variable	Туре	Notes	





dateTime	Date & time	Date and time of the first item being placed in the cart.
ipAddress	100 char text	IP Address of the customer

### Cart Contents

Variable	Туре	Notes
fkCart	Integer	Foreign key into the actual shopping cart
fkProduct	Integer	Foreign key for the product
quantity	Integer	Quantity of this product in the cart

### Transactions

Variable	Туре	Notes
orderNum	Integer	Internal order number
fkCart	Integer	Foreign key into the actual shopping cart
firstname	100 char text	First name of customer
lastname	100 char text	Last name of customer
email	255 char text	Email address of customer
phoneNo	20 char text	Phone number
address	100 char text	Address
city	100 char text	City
state	100 char text	State or province
zip	100 char text	Zip or postal code
country	100 char text	Country
totalCharged	Number w. 2	Total amount charged to customer
	decimal	
ecommReturn	255 char text	Exact return code form merchant gateway –
		may be used in future debugging or problem
		resolution.
confirmationCode	10 char text	Confirmation code

# **Testing Scenarios**

Although many functions of the site are intuitive and testing should be rather straightforward and logical, the following special tests have been devised to cover some of the more complicated or error-prone areas:

### **Scenario 1: Failed Purchase**

Prerequisites: Items in the cart

Actions: Proceed to checkout, enter all required details but use an invalid credit card Expected Result: Should remain on the checkout screen with an error that the transaction failed



#### Scenario 2: Successful Purchase

Prerequisites: Items in the cart Actions: Proceed to checkout, enter all required fields including valid credit card Expected Result 1: Successful Order Confirmation Page w. Confirmation No. Expected Result 2: Email receipt to customer with order summary Expected Result 3: Email to site admin with order summary Further Actions: Log in to administrative back-end Expected Result 4: Order details in order history

#### **Scenario 3: Inactive Product**

Prerequisites: none

Actions: Log into administrative area, select a specific product, mark it as inactive, then save the product. Then log out of admin area.

Actions: Browse the product catalogue to the corresponding category of the product Expected Result: The inactive product should not be listed

Actions: Search for the product using the search feature

Expected Result: The inactive product should not be returned in the search results.

Date	Name	Comments	
2009-03-10	Andreas Huttenrauch	Initial draft	
2009-03-18 Andreas Huttenrauch		Change spec to allow for product categories in a flexible hierarchy	

### **Revision History**

### **Open Issues**

No.	Date	Issue Description	Status
1			
2			
3			



# Sign-off

Client name:

Date: \_\_\_\_\_

Signature: \_\_\_\_\_