Software Requirements Specification

for

Virtual Furniture Shop

Version 1.0

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20.03.2017

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Revision History

Name	Date	Comments	Version
Deaconescu Andrei	20.03.2017	First Revision	1

1. Introduction

1.1 Purpose

This document is meant to delineate the features of **Virtual Furniture Shop**, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other. This specification document serves as a reference point during the development process and captures requirements that need to be met by the software product. Basic issues addressed in the SRS include functionality, external interfaces, performance requirements, attributes and design constraints.

1.2 Product Scope

The objective of this project is to create and implement a web-application for an online furniture shop. The website will be used primarily by online shoppers. The website will allow users to create and maintain individual accounts, search the Virtual Furniture Shop database for products, and make online purchases. The website makes purchasing furniture quicker, easier, and more convenient.

1.3 Intended Audience and Reading Suggestions

This document is intended for both the store's management and the developers of the system.

1.4 Definitions, Acronyms, and Abbreviations

1.5 References

GitHub project link: https://github.com/darkness1421/WAD_Project

2. Overall Description

2.1 Product Perspective

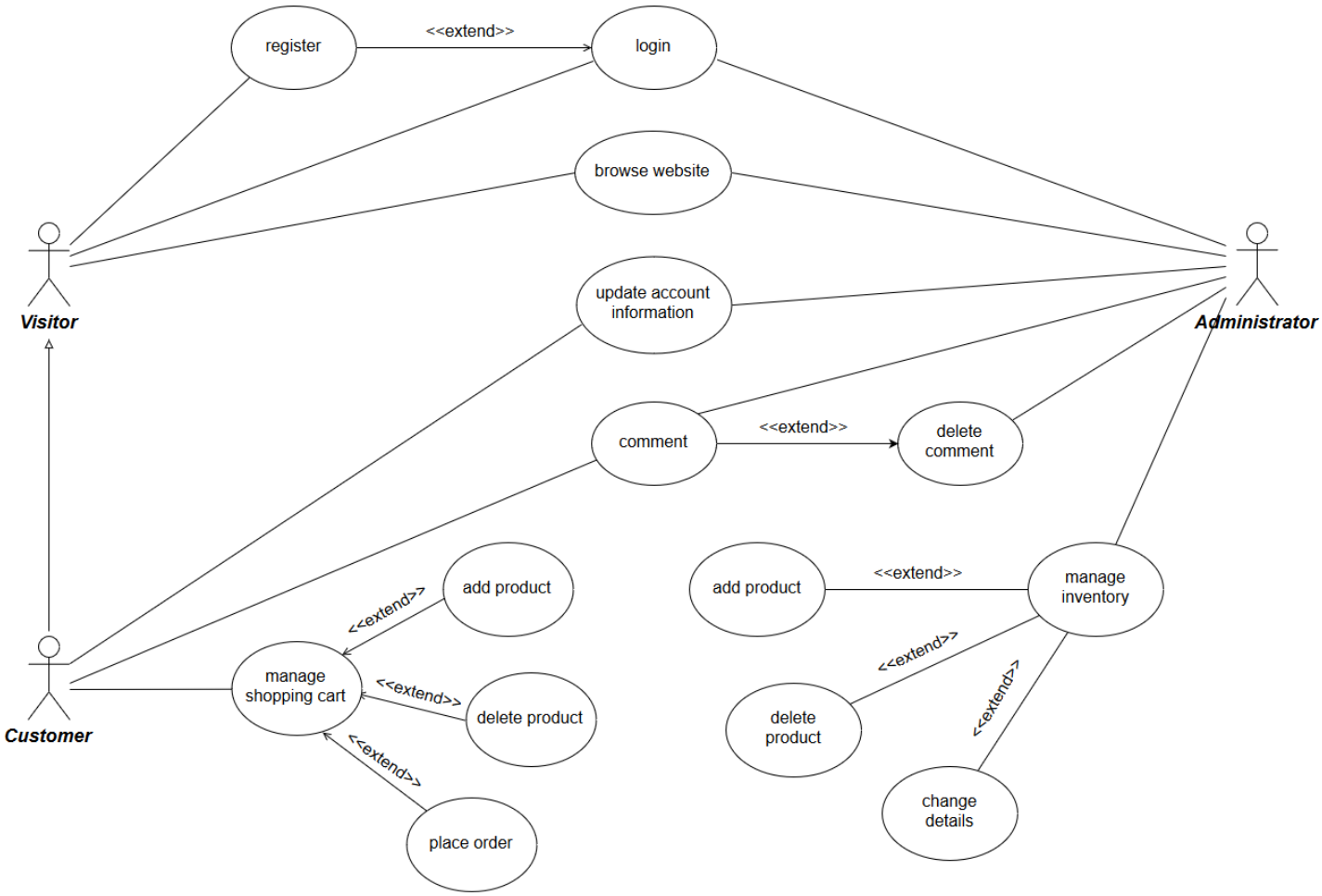
Virtual Furniture Shop is an online furniture website which supports a number of functions for both the consumer and store's management. This product is an entirely new product. It is not a component of a larger system.
The Virtual Furniture Shop application enables the customers to browse through a virtual furniture shop, and a system administrator to manage the items in the shop. The application will interact with the Virtual Furniture Shop's inventory database.

2.2 Product Functions

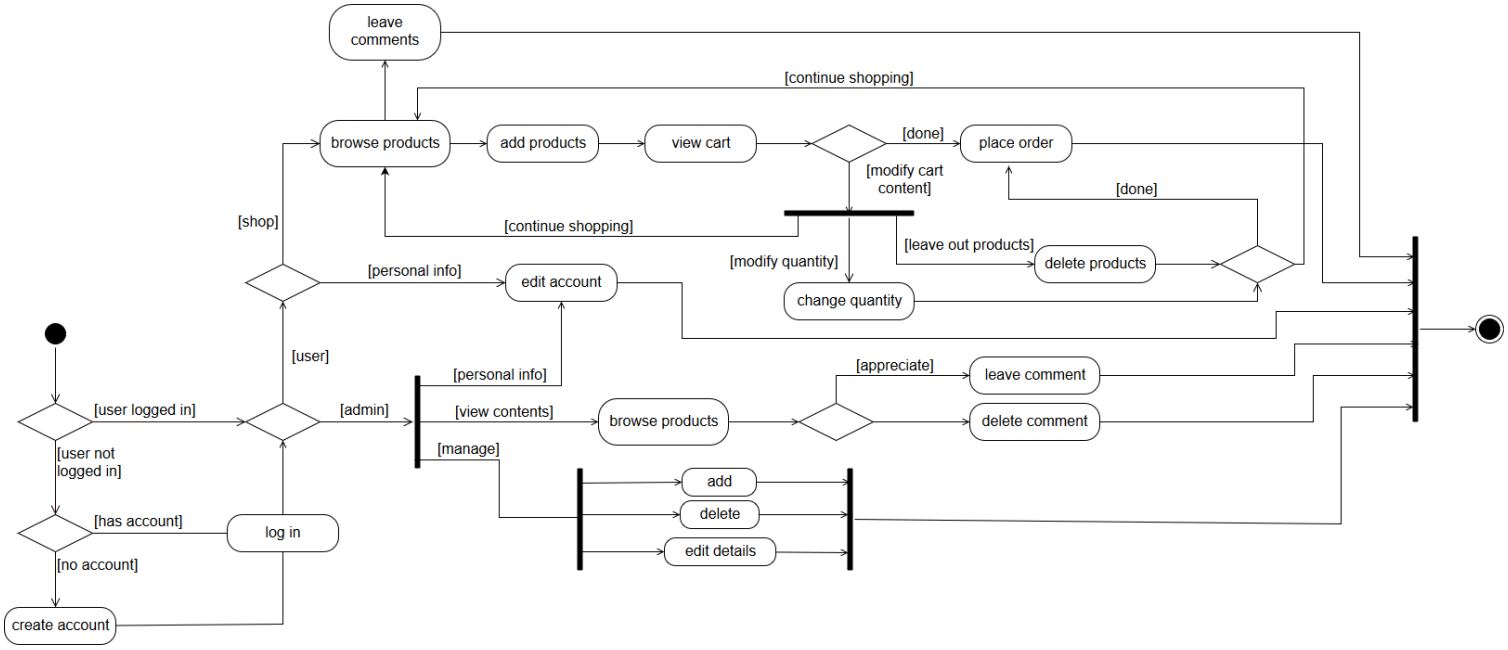
The following list of function descriptions explains the major features of the Virtual Furniture Shop:

- Allow the customer to register
- Allow the customer to login
- Allow the customer to easily browse through the products
- Allow the customer to manage a shopping cart
- Allow the customer to manage account
- Allow the customer to leave a comment
- Allow the shopkeeper to manage the shop inventory

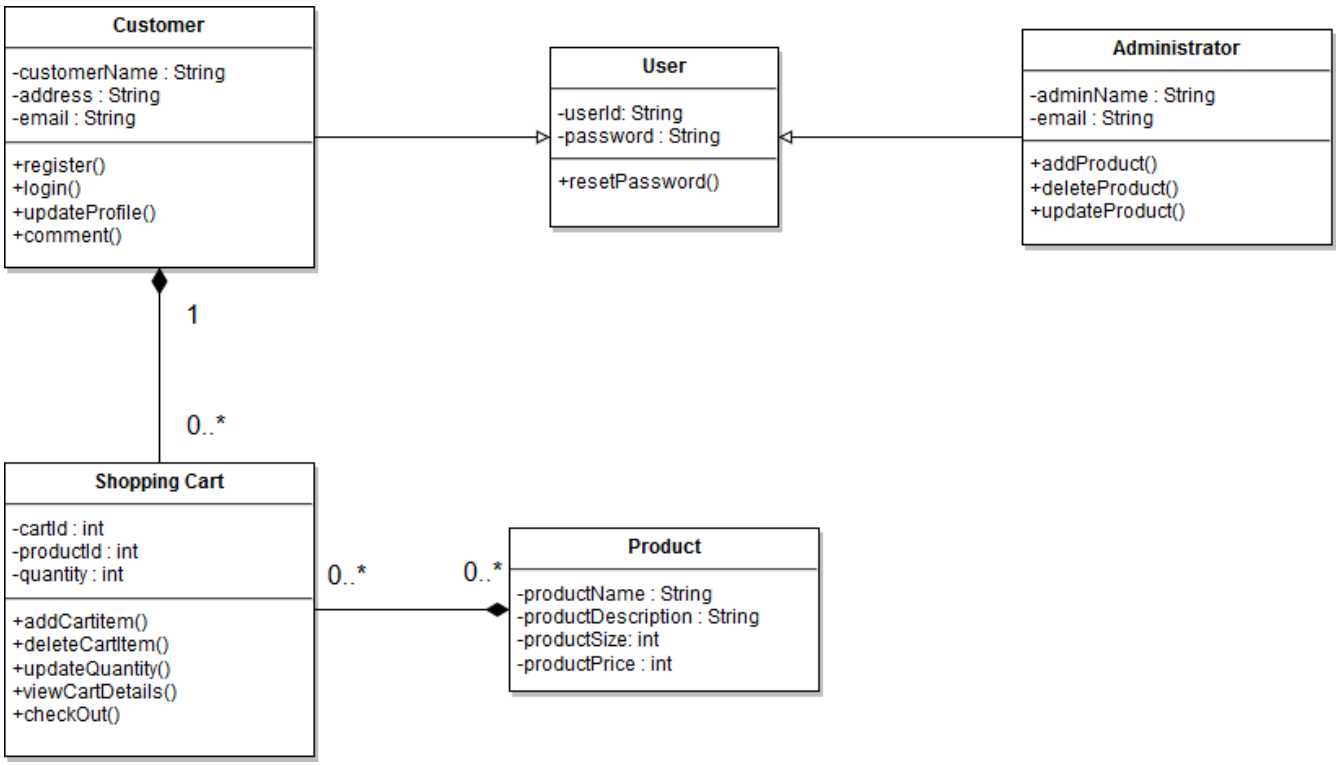
Use case diagram



Activity diagram



Class diagram



2.3 User Classes and Characteristics

There are 3 user classes for the aforementioned application:

- Visitor: does not have an account, can browse the website;
- Customer: has an account, can manage the account, can buy products and can leave comments;
- Store management (administrator): manages the shop inventory.

2.4 Operating Environment

This application will be developed in: Microsoft Visual Studio IDE.
The application supports the following web browsers Google Chrome and Mozilla Firefox.

2.5 Design and Implementation Constraints

The application will be displayed only in English.
The developed system should run under any platform (Windows, Linux, Mac etc.) that contains a web browser which supports JavaScript.
This application is distributed with a proprietary software license.

2.6 User Documentation

System Requirements Specifications document, System Design Specifications document and testing documents.

2.7 Assumptions and Dependencies

Since the Virtual Furniture Shop is only accessible through the Internet, it is assumed that the end user has a connection to the Internet. It is also assumed that the user has a web browser able to display the website. (I.E. Google Chrome, Mozilla Firefox or compatible browser).
All the inputs should be checked for validation and messages should be given for the improper data. The invalid data is to be ignored and error messages should be given.

3. External Interface Requirements

3.1 User Interfaces

Each part of the user interface intends to be as user friendly as possible. The fonts and buttons used will be intended to be very fast and easy to load on web pages. The pages will be kept light in space so that it won't take a long time for the page to load.
There will be 3 different user interfaces:

- The visitor interface will consist of a menu which will list the available products, a registration form and a login page.
- The customer interface will extend the aforementioned interface by adding a shopping cart and allowing the user to leave a comment on a product page.
- The administrator interface will consist of a login page and form for adding/modifying product pages.

3.2 Hardware Interfaces

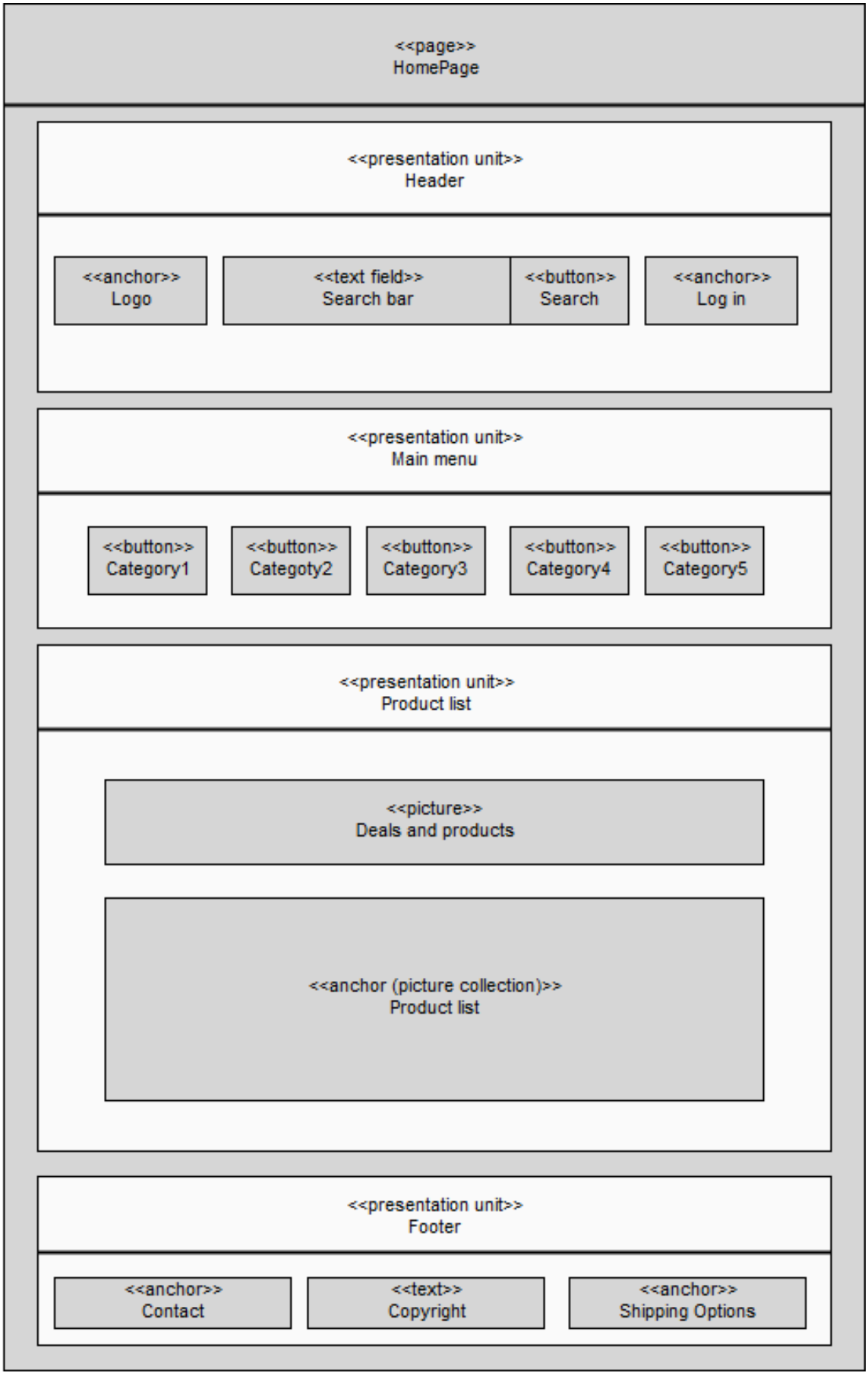
Not applicable.

3.3 Software Interfaces

The application is connected to a database which stores details about the client accounts and the products. There will be a communication interface between the server and the database (functions to read from and write into the database) and another one between the server and the client application (get input text and display data).

3.4 Communications Interfaces

This application uses the HTTP protocol.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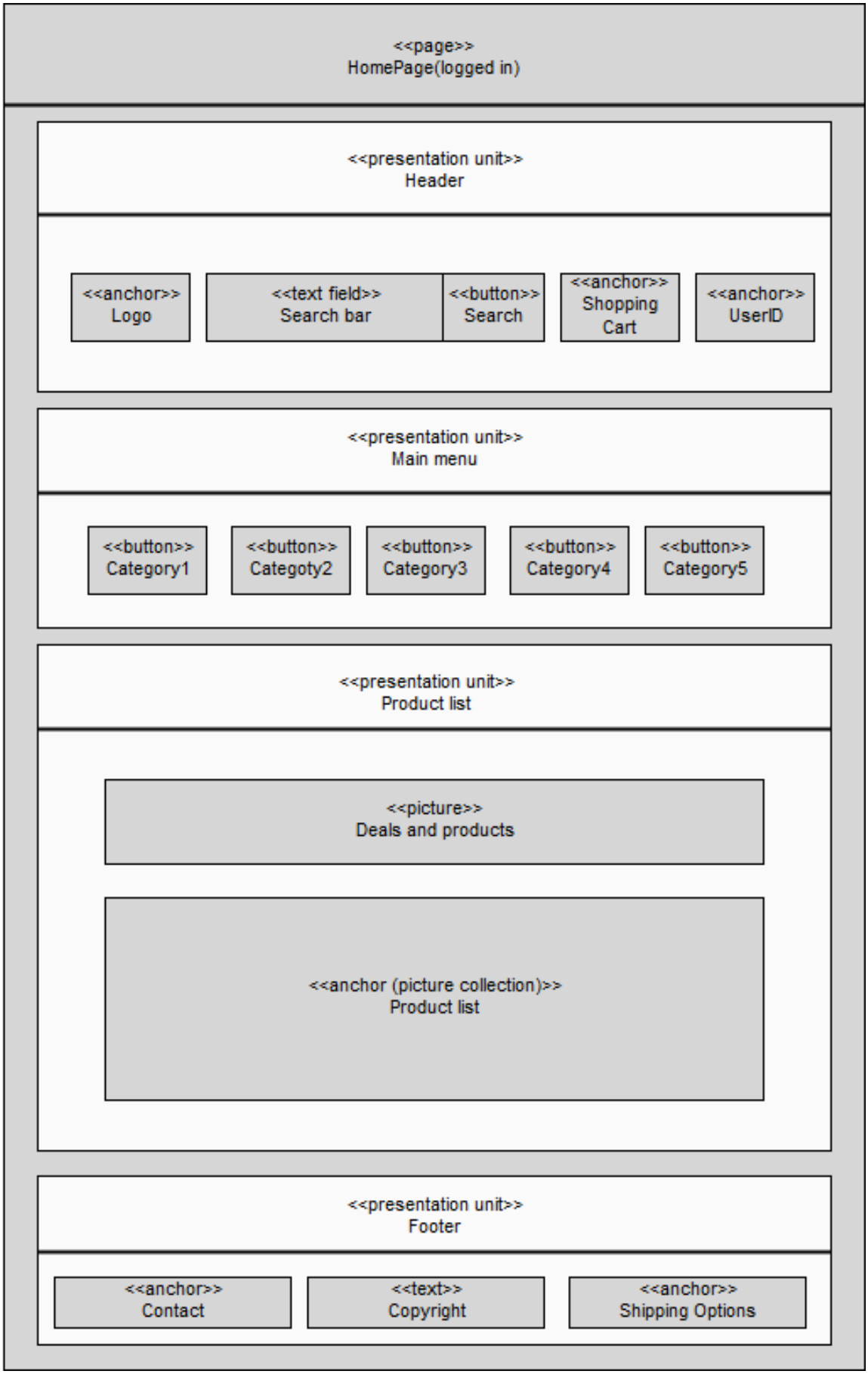
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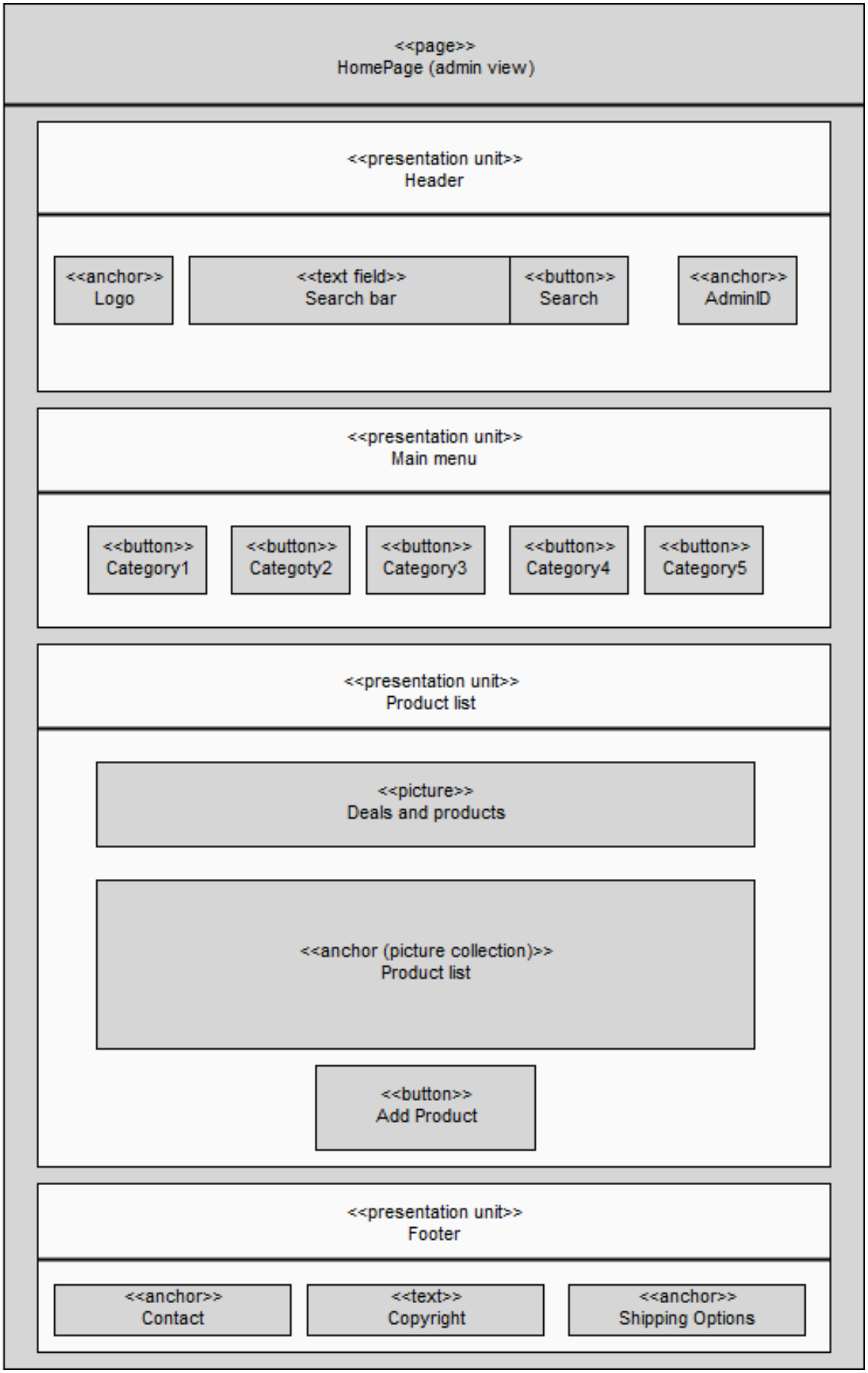
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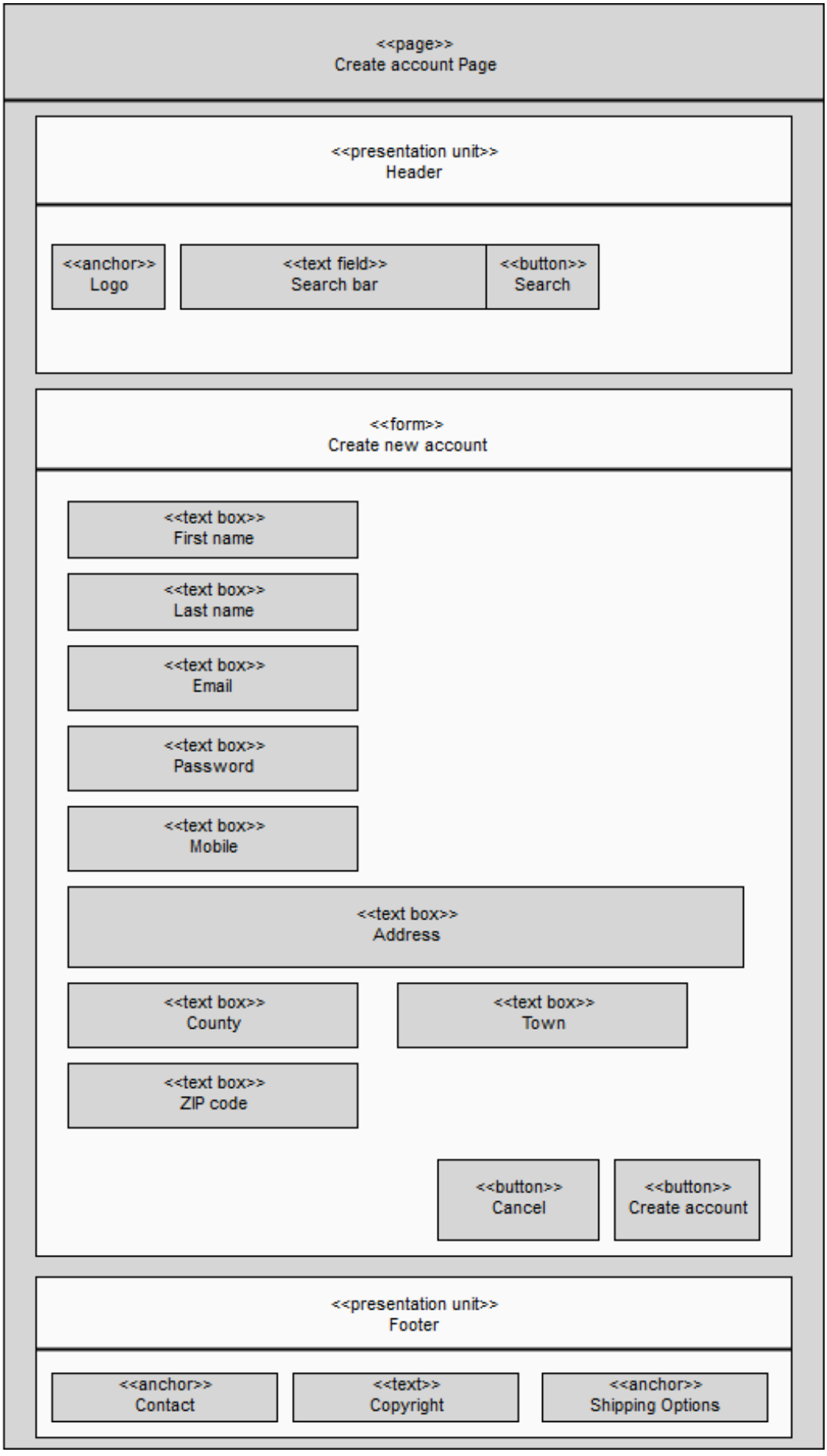
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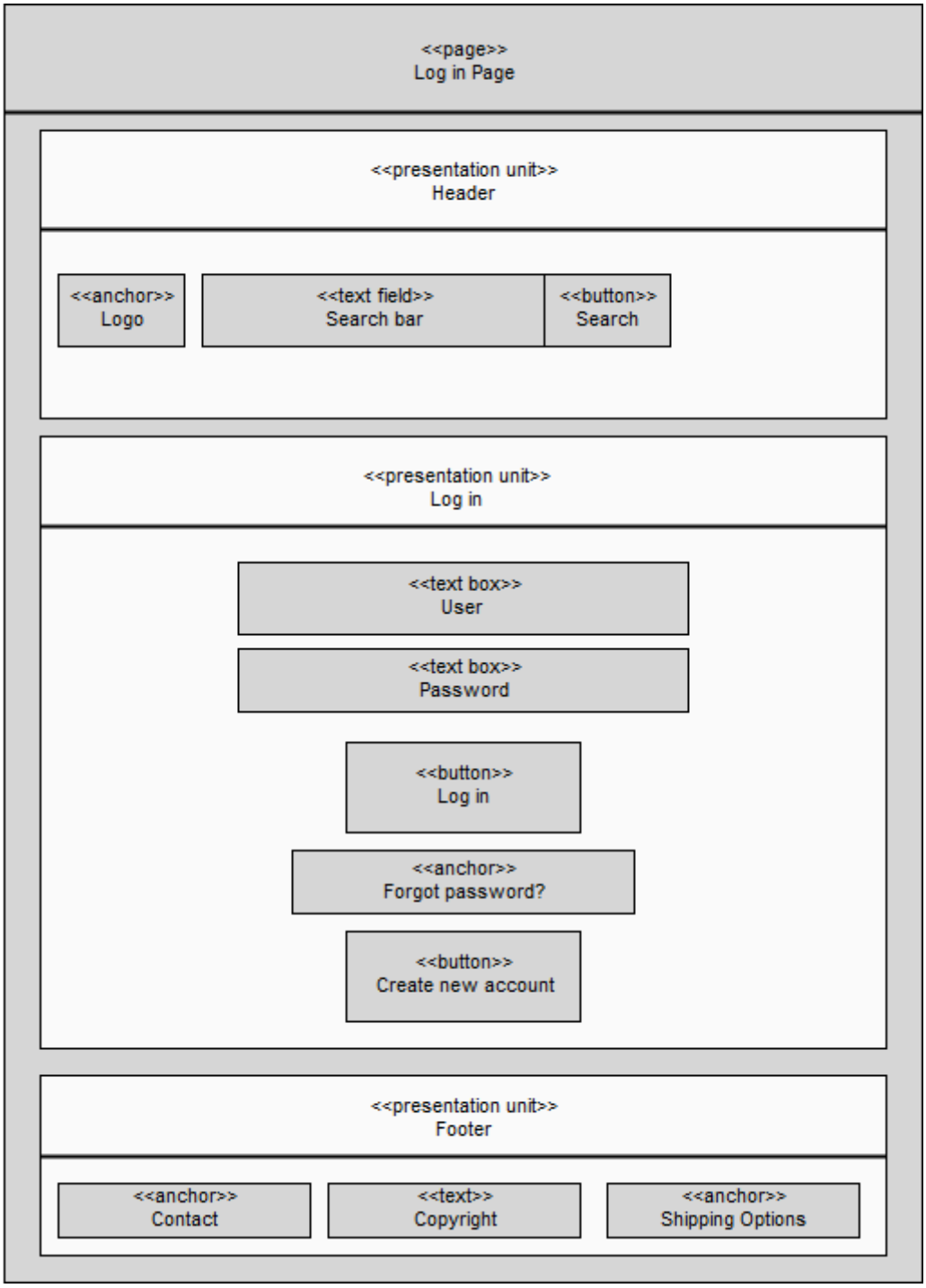
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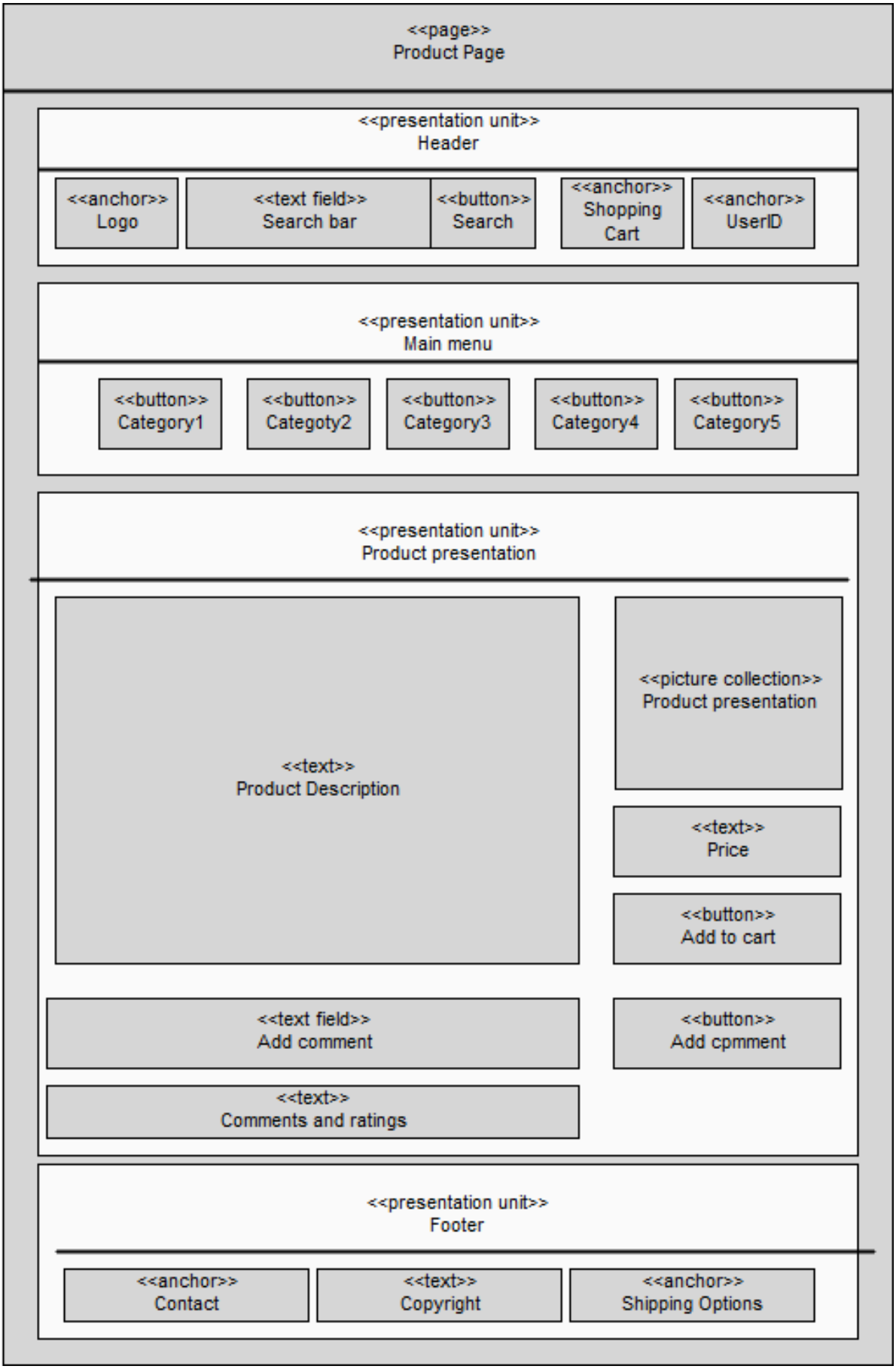
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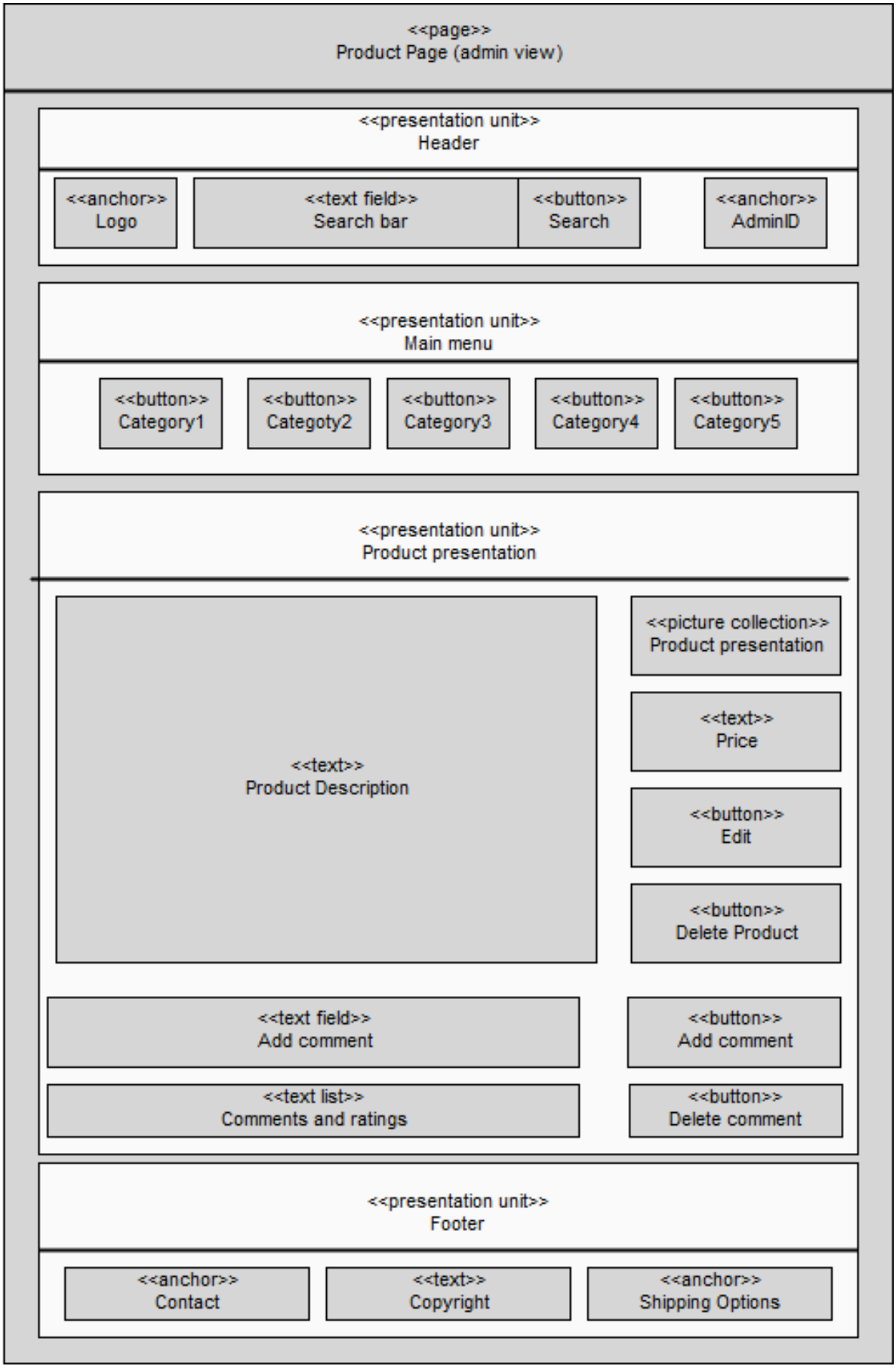
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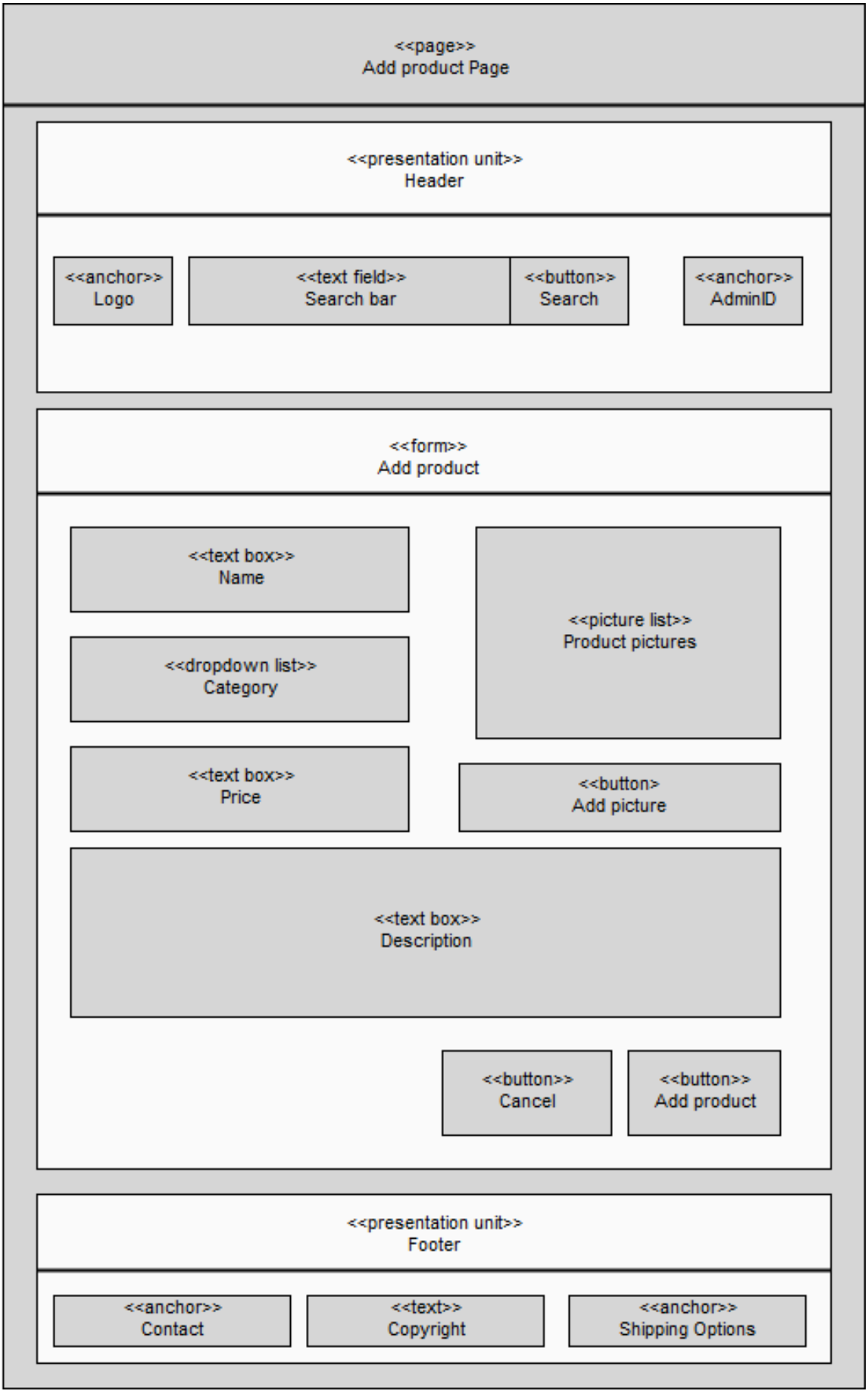
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4. System Features

4.1 Authorization

- **Account registration**

The registration function shall allow users to create secure accounts. The account will track the user's name, address, username and password.

- **Account login**

The account login function shall allow account members to enter their username and password. Once verified, users will be able to access the shopping cart, purchase products online, and update their account information.

- **Password reset**

The password reset function shall allow the users to receive a new password for their account.

4.2 Update account information

The update account information function shall give account members access to edit their stored information.

4.3 Browse inventory

The user can search for a specific product in the database (by name or category). The main menu will have sections for each category of furniture. The user will be able to order the listed products by price and name and see details about any product from the database. He will select the desired version to see the exact price.

4.4 Manage shopping cart

- **Add product to shopping cart**

The add to shopping cart function shall allow users to temporarily save products in a list that are being considered for purchase.

- **Delete product from shopping cart**

The delete from shopping cart function shall remove any unwanted products from the cart.

4.5 Comment

Logged in users can leave comments on a product's page. Administrators will be able to delete comments.

4.6 Manage inventory

- **Add product**

The add product function will allow administrators to add a new product to the shop inventory.

- **Delete product**

The delete product function will allow administrators to delete a product from the shop inventory.

- **Edit product**

The edit product function will allow administrators to edit the details of a product (such as name, description, picture and price).

5. Other Nonfunctional Requirements

5.1 Performance Requirements

There is no performance requirement in this system because the server request and response is depended on the end user internet connection.

5.2 Safety Requirements

Not applicable.

5.3 Security Requirements

The system's back-end servers shall only be accessible to authenticated administrators.
Sensitive data will be encrypted before being sent over insecure connections like the internet.

5.4 Software Quality Attributes

Reliability: The system can be used by multiple users concurrently. Any user can access the system, even with a low performance PC.

Maintainability: The entire system shall be easy to maintain. System upgrades can quickly and safely be performed with a minimum of downtime.

Usability: The application will be user friendly, users can easily learn how to use it. The user interface can be accessed by differently abled users.

5.5 Business Rules

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6. Other Requirements

Appendix A: Glossary

Appendix B: Analysis Models

The development of the application is based on the Agile strategy.