Smart X

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Jan.9.2020

Version 1.0.0

REVISION HISTORY			
DATE	**VERSION**	**DESCRIPTION**	**AUTHOR**
Jan.9.2020	1.0.0	first document	Naaman m. Al-Ajdah

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INTRODUCTION

PURPOSE

The aim of this project is to develop and sell devices for automation and smart systems and sell them through an online store via an e-commerce website.

INTENDED AUDIENCE

The target audience for this project are :Building owners or renters like houses ,offices and The villas, who are interested in automation and smart homes or any person who is related to that .

PROJECT SCOPE

The purpose of this project is to build a website that helps the customer to find everything related to automation and smart homes, by reviewing the product in e-store or searching it on the site. After selecting the right items the customer will request it through the site . The technical support team will communicate with customer to confirm the appointment and the address after that the technical team will install this System in the customer's building and activating it on the user Dashboard on our website , which will be built in the next version of this project

DOCUMENT CONVENTIONS

OE	OPERATING ENVIRONMENT
CO	CONSTRAINTS
AS	ASSUMPTIONS
REQ	Requirement
UI	User Interface
HI	Hardware Interface
SI	SOFTWARE INTERFACES
CI	Communication interface

REFERENCES

https://laravel.com/docs/5.8

DESCRIPTION

PRODUCT PERSPECTIVE

A **Smart X** stores the following information.

Items details:
It includes the name of products ,description ,image , Category , Price , Discount (if available) the item status(coming soon , available , out of stock) , SKU (coding systems to keep track of their inventory) and the number of viewers.

Category details:
It includes categories names and short details for the category .

Order description:
It includes customer information , address and phone number and the order status to give the user feedback about his order. If the status was awaiting that means the order is in the cart and waiting to Confirm purchase .

Card details:
It includes item details , order number and quantity for item, every item in cart has a card.

News details:
It includes title , body and image .

FEATURES

USER OVERVIEW

Customer or User description:

It includes customer ID, name, address and phone number. This information may be used for keeping the records of the customer for orders and any emergency or for any other kind of information.

Users of the system should be able to order the items from the store by adding it to the cart and select the quantity then confirm purchase the payment method will be cash on delivery .Then the user can track the order by order page .

Cart page will show the items that were added , and the customer can edit it by changing the quantity or delete it from the cart list .

Order page it showing the order history and details for each order

OPERATING ENVIRONMENT

OE-1: The smart X website shall operate with any web browser.

OE-2: The smart X website shall operate on Windows 7 and Ubuntu 12.10 operating system.

CONSTRAINTS: IMPLEMENTATION / DESIGN

CO-1: The system shall be developed using laravel and related data base

CO-2: The system shall be tested

ASSUMPTIONS / DEPENDENCIES

AS-1: The server used for Optimized SmartX is Apache 2.4.

AS-2: The database used for Optimized SmartX is MySQL 5.5.31.

AS-3: The Laravel Version 5.8 is used to develop the system.

SYSTEM FEATURES

Login Feature 1

DESCRIPTION AND PRIORITY	Provide the user with a page to login to store page to make user able to add items to cart and purchase it
STIMULUS / RESPONSE SEQUENCES	Stimulus: User clicks on Login Link. Response: Login Page is displayed Stimulus: User Enters Username and Password Response: Username and Password are validated from MySQL DB. Stimulus: User Clicks on Login Button Response: Home Page is displayed if Username and Password is correct else Error Message is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The user shall be able to view and click on Login Link. REQ-2: The user shall be able to enter the username and password REQ-3: The database shall be able to validate username and password

Register Feature 2

DESCRIPTION AND PRIORITY	Provide the guest with a page to register to the website
STIMULUS / RESPONSE SEQUENCES	Stimulus: User clicks on register Link. Response: register Page is displayed Stimulus: User fill the form thats include : name , Email password ,address ,phone number and image Stimulus: User Clicks on Register Button Response: check if all input forms are validate and Email is not registered in MySQL DB Response: Home Page is displayed if email is correct and all input field are validate else Error Message is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The user shall be able to view and click on register Link. REQ-2: The user shall be able to enter the all input form REQ-3: The database shall be able to validate Email

Store Feature 3

DESCRIPTION AND PRIORITY	Provide the user with a page to view items in store and to view details for each product.
STIMULUS / RESPONSE SEQUENCES	Stimulus: User clicks on store Link. Response: store Page is displayed Stimulus: User will able to see all items and category in store Stimulus: User Clicks on any item Response: get item details from MySQL DB and route it to new page to show the item details Stimulus: User select the quantity then Clicks on add to cart Response: create item card in DB then route the user to cart page.
FUNCTIONAL REQUIREMENTS	REQ-1: The user shall be able to view and click on store Link. REQ-2: The user shall be able to view and click on item Link. REQ-3: The user must be logged in to add items to cart and see the cart. REQ-4: The user shall be able to enter the quantity for item REQ-5: The database shall be able to add new card and create cart

Cart Feature 4

DESCRIPTION AND PRIORITY	Provide the user with a page to view cart items and quantity of each item
STIMULUS / RESPONSE SEQUENCES	Stimulus: User clicks on cart Link. Response: cart Page is displayed with all items which selected and the quantity foreach item Stimulus: User will able to edit quantity foreach item and delete the items from carts
FUNCTIONAL REQUIREMENTS	REQ-1: The user shall be able to view and click on cart Link. REQ-2: The user must be logged in to view his cart REQ-3: The user shall be able to view the total price for all card REQ-4: The user shall be able to see the carts items , quantity and price for each item . REQ-5: The user shall be able to edit the quantity for item and delete items.

Order Feature 5

DESCRIPTION AND PRIORITY	Provide the user with a page to view history of orders and the current order and show the status for each order
STIMULUS / RESPONSE SEQUENCES	Stimulus: User clicks on order Link. Response: order Page is displayed Stimulus: User will able to see history of orders
FUNCTIONAL REQUIREMENTS	REQ-1: The user shall be able to view and click on order Link. REQ-2: The user must be logged in to view his order history REQ-3: The user shall be able to see the order history and status for each order .

News Feature 6

DESCRIPTION AND PRIORITY	The User shall be able to view the news forum.
STIMULUS / RESPONSE SEQUENCES	Stimulus: User clicks on News Forum in home page Response: News Forum Page is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The system shall be able to view news forum.

Add item Feature 7

DESCRIPTION AND PRIORITY	Provide the **Admin** with a page to add items
STIMULUS / RESPONSE SEQUENCES	Stimulus: Admin clicks on Add item Link in admin dashboard . Response: Add item Page is displayed Stimulus: Admin fill the form thats include : item name , SKU , description , price , discount and image Stimulus: Admin Clicks on Add Button Response: check if all input forms are validate and SKU is not registered in MySQL DB Response: item Page is displayed if SKU is correct and all input fields are validated. Error Message is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The Admin shall be able to view and click on add items Link. REQ-2: The admin must be logged in. REQ-3: The admin shall be able to enter the all input form REQ-4: The database shall be able to validate SKU.

Add category Feature 8

DESCRIPTION AND PRIORITY	Provide the **Admin** with a page to add category
STIMULUS / RESPONSE SEQUENCES	Stimulus: Admin clicks on Add category Link in admin dashboard . Response: Add category Page is displayed Stimulus: Admin fill the form thats include : category name and short description Stimulus: Admin Clicks on Add Button Response: Check if all input forms are validate and name is not registered in MySQL DB Response: Category Page is displayed if name is correct and all input fields are validated. Error Message is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The Admin shall be able to view and click on add items Link. REQ-2: The admin must be logged in. REQ-3: The admin shall be able to enter the all input form REQ-4: The database shall be able to validate category names.

Edit item Feature 9

DESCRIPTION AND PRIORITY	Provide the **Admin** with a page to edit selected item
STIMULUS / RESPONSE SEQUENCES	Stimulus: Admin clicks on edit item Link in item list. Response: edit item Page is displayed with all item information editable. Stimulus: Admin edit the form data by changing any input field then click on save. Response: check if all input forms are validate and SKU is not registered in MySQL DB Response: item Page is displayed if SKU is correct and all input fields are validated. Error Message is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The Admin shall be able to view and click on edit items Link in items list REQ-2: The admin must be logged in. REQ-3: The admin shall be able to enter the all input form REQ-4: The database shall be able to validate SKU.

Edit category Feature 10

DESCRIPTION AND PRIORITY	Provide the **Admin** with a page to edit selected category
STIMULUS / RESPONSE SEQUENCES	Stimulus: Admin clicks on edit category Link in category list. Response: edit category Page is displayed with all category information editable. Stimulus: Admin edit the formdata by changing any input field then click on save. Response: Check if all input forms are validate and name is not registered in MySQL DB Response: Category Page is displayed if name is correct and all input fields are validated. Error Message is displayed.
FUNCTIONAL REQUIREMENTS	REQ-1: The Admin shall be able to view and click on edit category items Link in categories list REQ-2: The admin must be logged in. REQ-3: The admin shall be able to edit the all input form REQ-4: The database shall be able to validate category name.

Order list Feature 11

DESCRIPTION AND PRIORITY	Provide the admin with a page to view order list for all users and edit the status .
STIMULUS / RESPONSE SEQUENCES	Stimulus: admin clicks on Order list Link. Response: Order list Page is displayed Stimulus: admin will be able to see all orders which are waiting to confirm . Stimulus: admin Clicks on any order and change status the click on save. Response: change status for order in MySQL DB and route it back to order list
FUNCTIONAL REQUIREMENTS	REQ-1: The admin shall be able to view and click on the order list Link. REQ-3: The admin must be logged in REQ-4: The admin shall be able to change the status for orders REQ-5: The database shall be able to edit status for order

REQUIREMENTS OF EXTERNAL INTERFACE

USER INTERFACES

UI-1: The system shall provide all functionalities and activities supported by store
UI-2: The pages shall permit complete navigation and item selection.
UI-3: Provide Admin interface to see all admin features.
UI-4: Provide Admin interface to create an item.
UI-5: Provide Admin interface to create a category.
UI-6: Provide Admin interface to edit items.
UI-7: Provide Admin interface to edit categories.
UI-8: Provide Admin interface to see all orders and edit the status.
UI-9: Provide User interface to add items to cart.
UI-10: Provide User interface to see and edit items in cart.
UI-11: Provide User interface to make order.
UI-12: Provide User interface to see the history of order.
UI-13: Provide guest interface to create user.
UI-14: Provide User interface to Login.
UI-15: Provide guest interface to see the store .
UI-16: Provide guest interface to see home page and news .

HARDWARE INTERFACES

Hardware for server

HI-1: Processor 2.5 GHz i7 or faster

HI-2: RAM 16GB (64bit)

HI-3: Hard disk space 1TB or more

Hardware for Enduser

Any device support any type of browsers with internet connection

SOFTWARE INTERFACES

Software for server

SI-1: Operating system linux os ubuntu 18.0 or lates

SI-2: Database : PHPmyAdmin to access to the database

SI-3: IDE : PHPStorm

SI-4: Apache Server 2.4

Software for EndUser

Any web browsers .

COMMUNICATION INTERFACES

CI-1: The system shall use MySQL Database named “SmartX”

CI-2: The system uses Laravel PHP 5.8 to generate SmartX pages.

CI-3: The system uses PHP 5.6 to generate SmartX pages.

ADDITIONAL NONFUNCTIONAL REQUIREMENTS

PERFORMANCE

PE-1: Responses to queries shall take no longer than 200 milliseconds to load onto the screen after the user submits the query for 1 user.

PE-2: The system shall display confirmation messages to users within 200 milliseconds after the user submits information to the system.

PE-3: The system should generate card or order with an accuracy of 99%.

SAFETY

Consistency: Checking the fact that all clients must be attached to one server, so there is an appropriate control of the information.

SECURITY

SE-1: The files generated by the user are only accessible by the admin and application should store these files in MySQL database and must not share them.

SE-2: The cart and order pages should be accessible only to user.

SE-3: The Add and edit For each of the items and category pages should be accessible only to Admin.
.

SOFTWARE QUALITY

Availability-1 The system shall be available to users all the time.

Availability -2 The system shall always have something to function and always show error messages in case of component failure.

Efficiency-1: The system shall generate the correct pages

Efficiency-2: The system shall provide the right tools to support all its features.

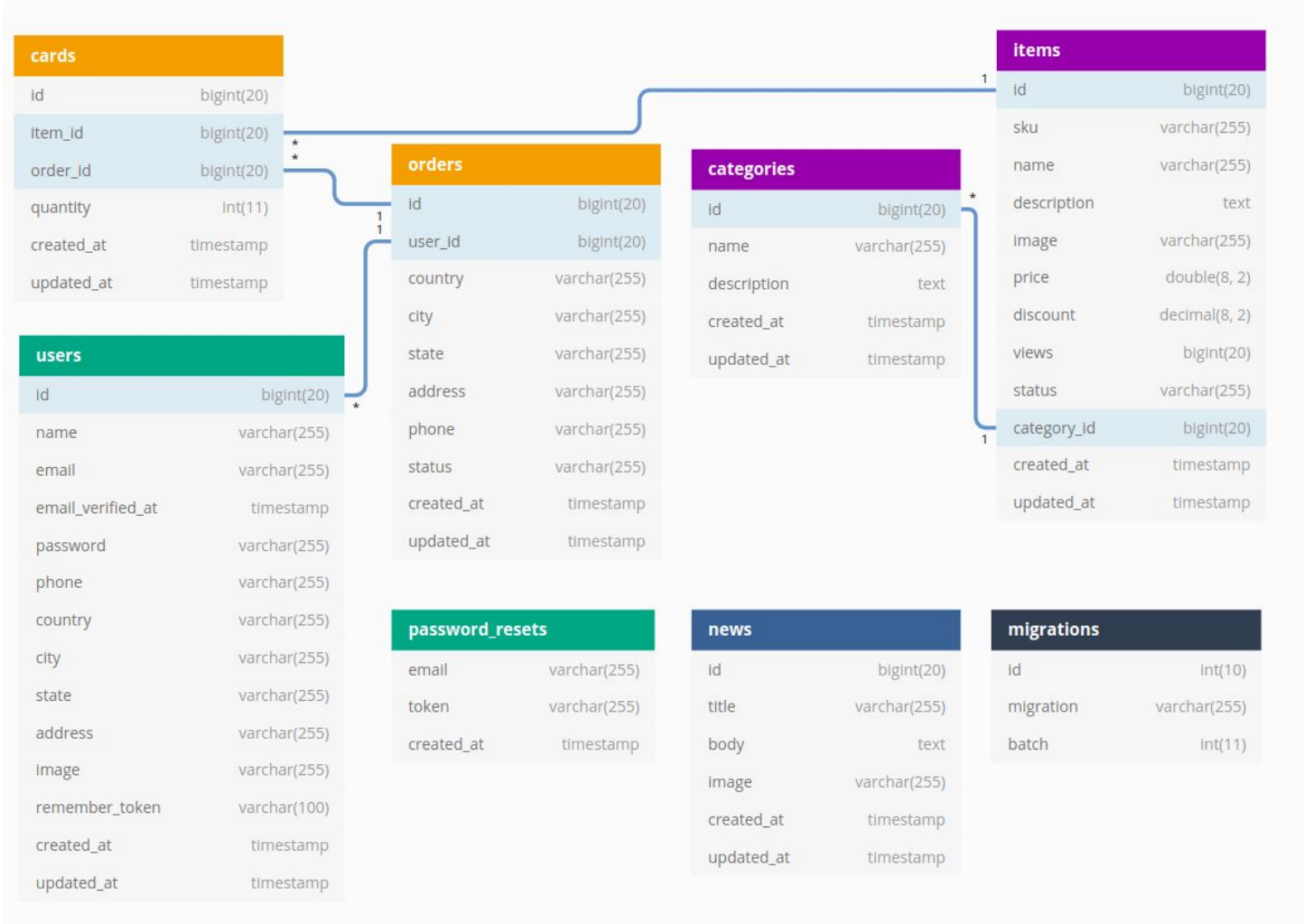
APPENDICES

APPENDIX A: GLOSSARY OF TERMS

Database	A collection of data stored in a computer in such a way that a program or a webpage can easily find, select, and/or manipulate the desired data.
Bootstrap	Bootstrap is a free, open-source frontend framework for designing websites and web apps.
HTML	Stands for Hypertext Markup Language.
Backend	Backend development essentially refers to everything that goes on behind the scenes.
Frontend	is what the end user sees and interacts with. Frontend languages include HTML, CSS and JavaScript
MySQL	MySQL is the world's most popular open-source database management system.

APPENDIX B: ANALYSIS DOCUMENTATION

The major features of Smart



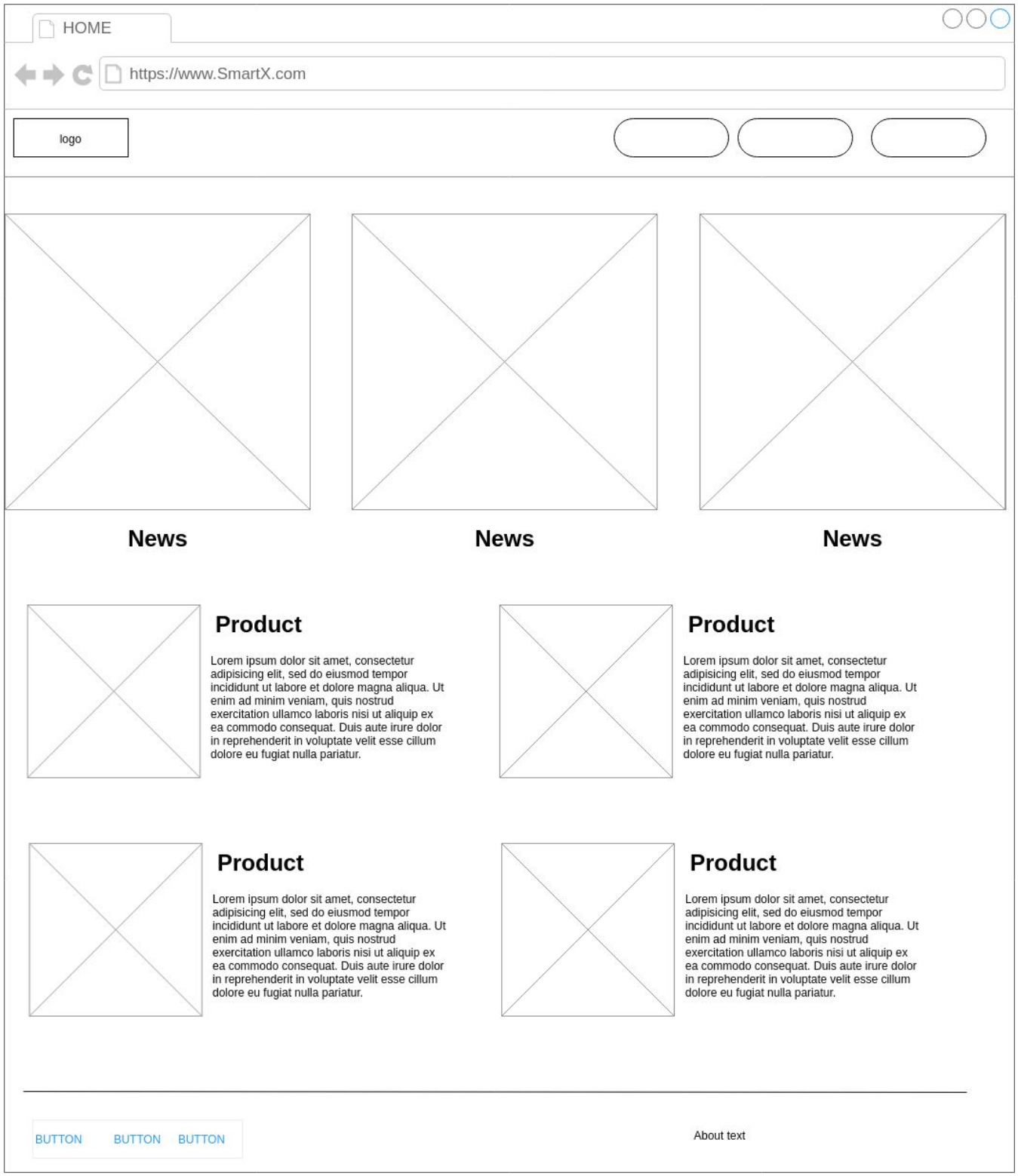
X as shown in below **entity–relationship model** (**ER model**)

The diagram shows the layout of Smart X database system - entity – relationship model

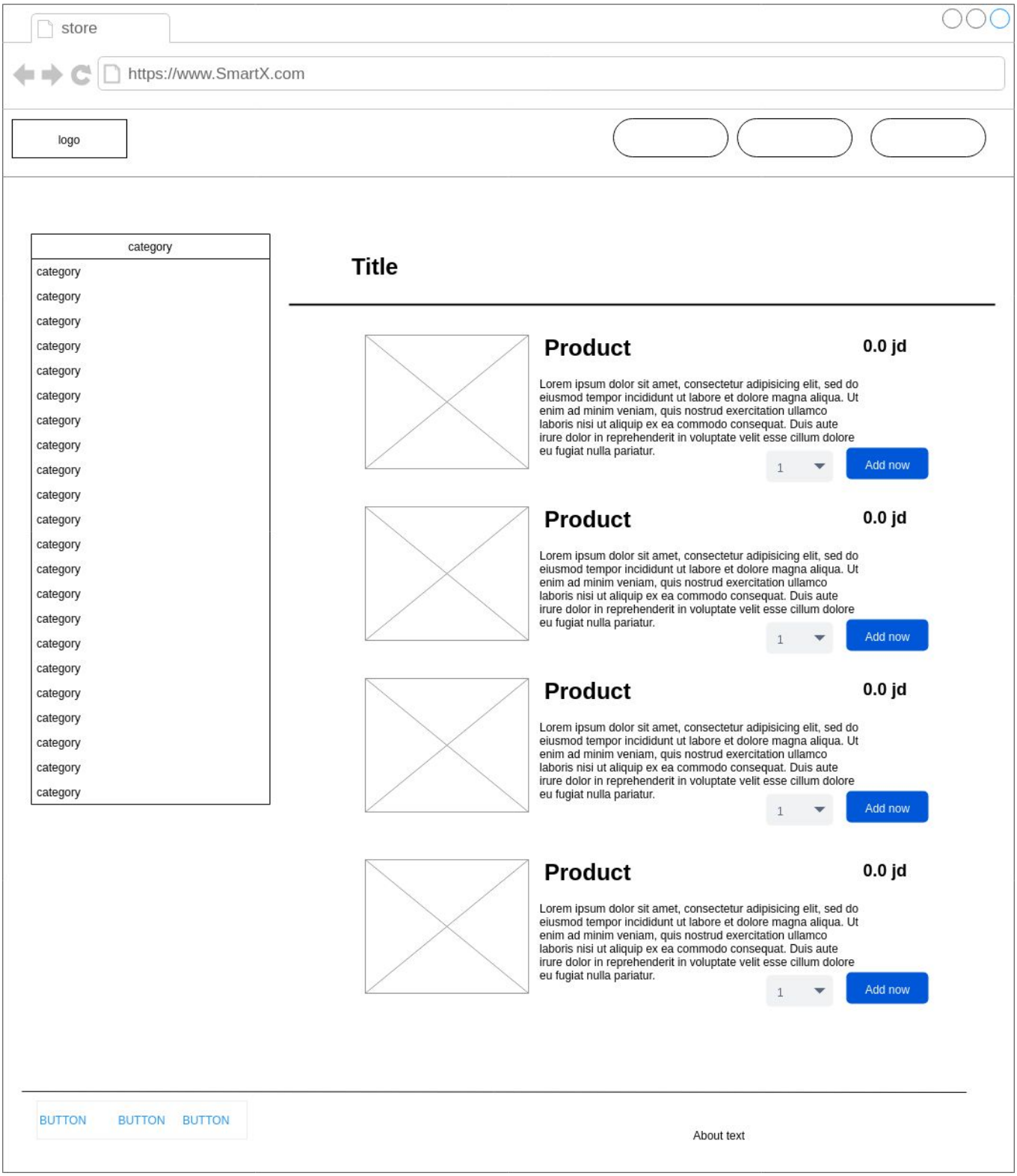
you can find the DB schema and relation on the following link : [DB schema]

Wire Frame

Home page



Store Page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BUTTON
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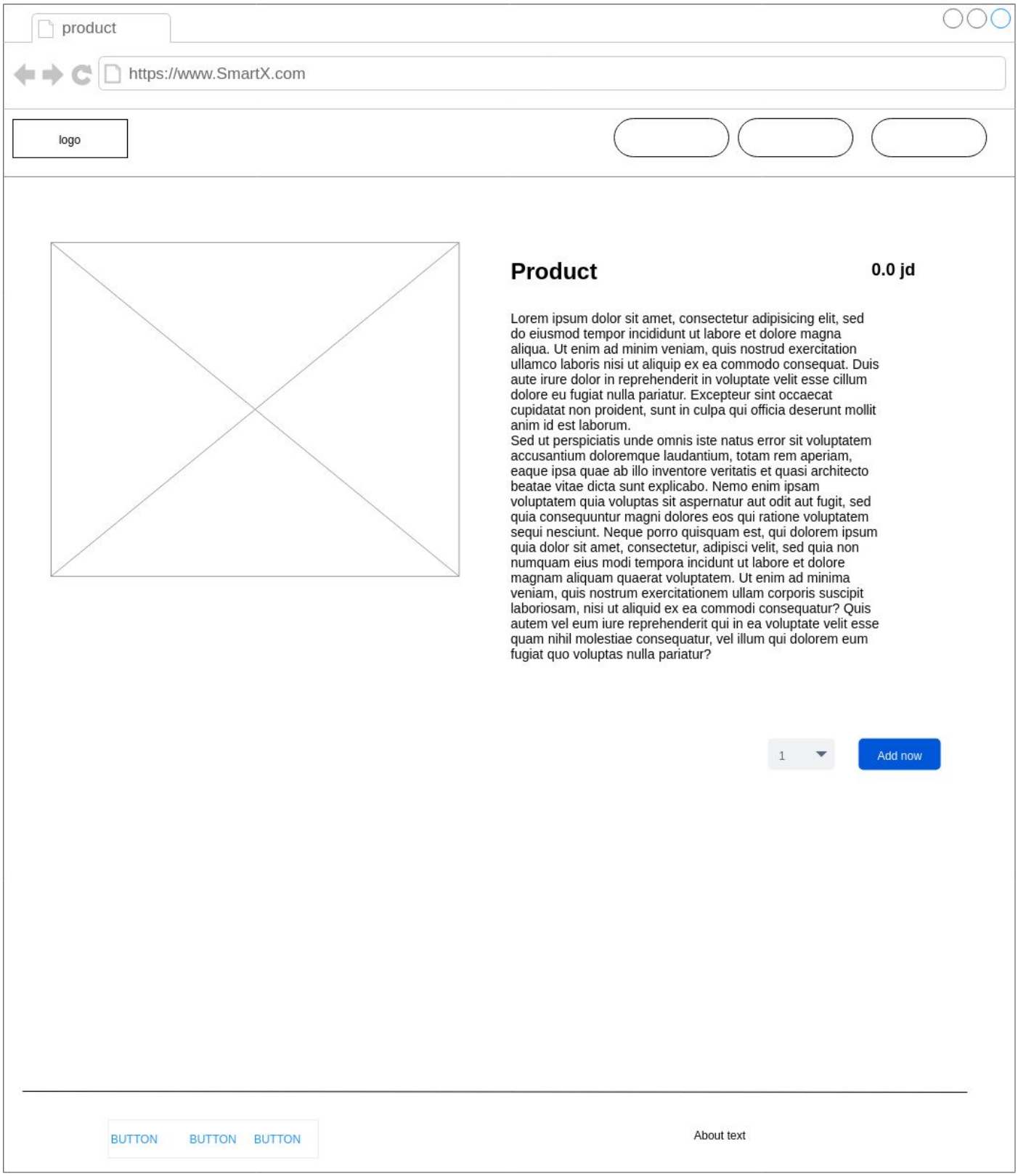
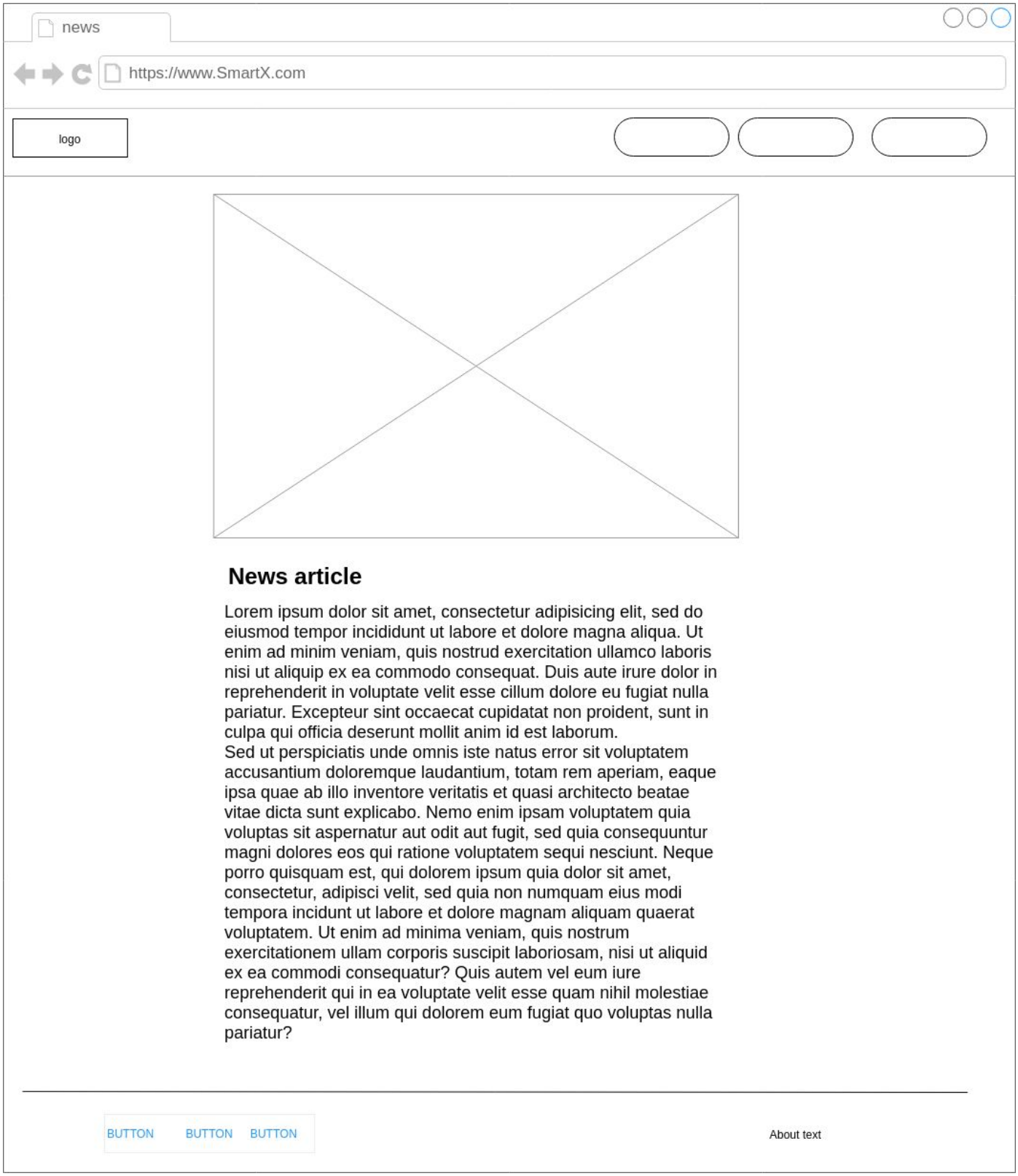
About text

Product page



News page


news
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Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?
BUTTON
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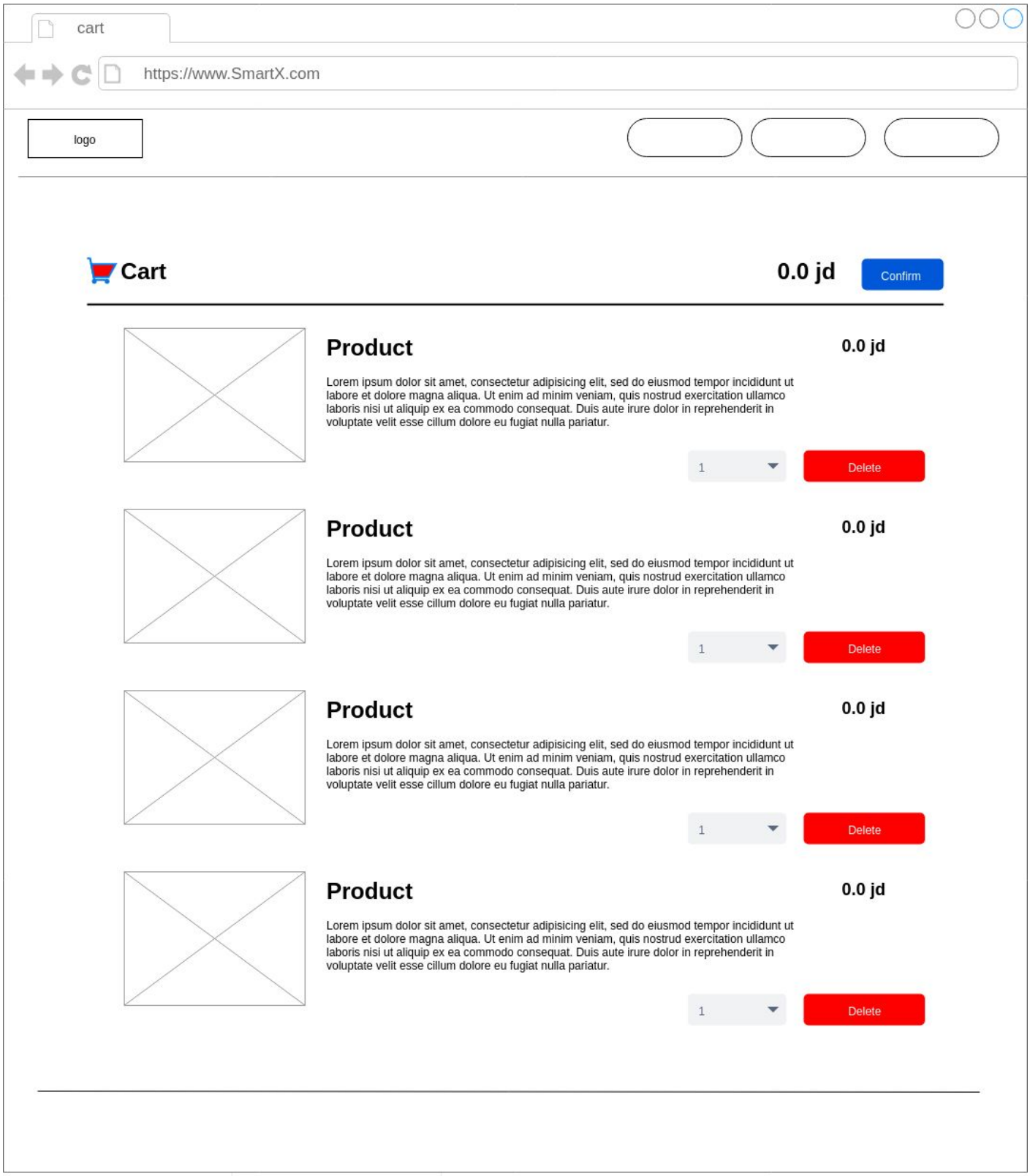
About text

Cart page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