Software Requirements Specification

for

Electronyat Shop
(An E-commerce Website)

Version 1.0

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Document Purpose and Audience

This is a software requirements document. It is intended to clarify the requirements of the customer to make sure that they are on the same page as the vendor's vision. It shows a documented version of what the customer needs the app to do.

This document is targeting both the stakeholders to keep them on track, and the technical team on the other hand to deliver a clear idea of the system to be built.

Introduction

Software Purpose

Electronyat Shop Website Application is an e-commerce app that will help the business grow by providing a new way of customer interaction, through the Web.

Software Scope

Electronyat Shop Website is built to help customers of Electronyat Shop to view and shop Electronics' products online. Also, facilitating administration and item management by letting admins manage orders, users, and item catalog.

Product Overview

Product Perspective

Electronyat Shop is designed for online shopping, specifically for electronic products such as laptops, keyboards, mouses, headsets, and more. It is a user-friendly platform that allows users to browse products, add items to their cart, place orders, and interact with the website as logged-in or anonymous users.

Product Functions

- Item Catalog Features:
    - Display items in a catalog.
    - Option to show all items without requiring account login.

- Item Attributes:
    - Define key attributes for each item.
    - Include name, category, description, image, brand, price, and discounts.
    - Track item status (on sale, out of stock, not on sale).

- Item Availability Management:
    - Admin manages item availability.
    - Options to hide items, mark them as unavailable, and specify quantities.
    - Users cannot order more than available stock.

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- User Account:
    - Users can create accounts with essential information like username, email, secure password, and address.

- Logged-in User Actions:
    - Users must register and log in to add products to their cart or make purchases.
    - Ability to browse the catalog and add items to the shopping cart.
    - Purchase up to available quantity units of each item.

- Order Definition:
    - Define essential order details, including total price, checkout date, total price, and delivery address.

- Admin Access:
    - Admins log in using special credentials.
    - Admins can manage the catalog, set item quantities or discount, and control item availability.

- Contact Us Page:
    - Display links to the Facebook, LinkedIn, and GitHub page.

These requirements encompass the core functionalities of the E-Commerce website, covering everything from item management and user accounts to admin control and customer interactions

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Requirements

Functional Requirements

ID	Requirement

FR01	**Title**: Item Catalog features
	Description: System should have a catalog to show items to the user, the catalog **provides**:
	    ● Search items by:
	      - name
	      - brand
	    ● Filter items by categories
	    ● Show all items.
	Browsing the catalog does not require the user to be logged in with an account.

FR02	**Title**: Items
	Description:
	Items in the system should have:
	    ● name
	    ● category
	    ● description
	    ● image
	    ● brand
	    ● price
	    ● discount amount (if any),
	    ● discount could be applied to items as follows:
	      - by category
	      - by item
	      - all items.
	    ● status: (on sale - out of stock - not on sale).

FR03	**Title**: Item Availability Management
	Description: The system should keep track of the quantity available of each item and the status of the item, which is managed by administrators.
	An admin could specify the following for an item:
	    ● not to be displayed in the catalog
	    ● keep in catalog, but mark unavailable
	      - out of stock (which shows the item shaded out)
	Upon specifying the desired quantity, the system should not allow the user to specify more than the available quantity(specified by admin). If so, the system should show a disclaimer to the user, providing him with the available quantity of this specific item.

FR04	**Title**: User Account **Description**: User should be able to create and log in to an account, which holds the following information:

	● username ● valid email ● password, (secure) ● Address.
FR05	**Title**: Shopper / Buyer / Customer / Logged User Actions. **Description**: The Customer, Shopper, Buyer, or Logged-in User is the same person which is the one who pays for the products, S/he can: ● View the catalog but to buy s/he must register and login. ● View all items in the catalog, items in a specific category, or search for an item by name or by brand. ● Shop among all available items in the catalog and can select the items to add it to the shopping cart, after finishing shopping he must go to check out. ● Choose up to 50 units of each item in one order.
FR06	**Title**: Order Definition. **Description**: This is the main data of the order that should be stored. ● The customer Order is defined as follows: - Total Price of Order. - Date of checkout. - Address.
FR07	**Title**: Admin / Access **Description**: This Requirement describes Admin Access and interactions with the system ● Admin should log-in using special credentials given to them but no sign-up mechanism. ● A system admin can update the catalog with new items, or update item info. ● A system admin can set the quantity of a given item. ● Admin Can Cancel Item Availability From catalog: - If out of stock the item is still displayed but with a note that says it's out of stock. - if for any other reason, the item won't be visible in the catalog at all. ● Admin can view all orders. ● Admin can set a discount amount for: - one item. - all items. - category.
FR08	**Title**: Contact Us page. **Description**: This page allows the user to contact the owners. ● Should display: - Facebook Page's Link. - Support Phone Number.

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Non-Functional Requirements

Title	Description
Performance	● Response Time must not be more than one second to fetch or reload any page
Scalability	● Resource Usage - The system must be scalable up to 1000 simultaneous user
Maintainability	-

Reliability & Availability	● Reliability
	   - Must work 99% of the time meaning that 80H of downtime is ok per year
	   - A Failure is defined as system being down for more than 5 minutes.
	● Recovery from failure
	   - The system should be able to revert every order that wasn't successfully confirmed and paid for.
	● Availability
	   - The system should be available 24/7 with one hour of maintenance every month

Portability & Compatibility	● The system must adapt a layered architecture:
	   - Front-end Application
	   - Back-end Application
	   - Database server
	● System supports Web.
	● System provides a separate Web-app for Administrators.

Security	● Account passwords for both Administrators and Customers must follow Microsoft Secure Password Guidelines.
Usability	● 20% measured in terms of lines of code must be designed generically so that it can be reused.

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User Stories

User Story #01

ID	US #01
Name	Register
Actors	General User
Description	As a general user, I want to be able to open the website, and register to it.
Preconditions	not have an account on the website.
Postcondition	can login and use the website with my account.
Acceptance Criteria	Given that I do not have an account on the website, I open the website then the "Register" and "Login" button appeared. - I'll choose the register button. - The registration form appears to be filled. - After filling in the form I confirm my input. - After doing the confirmation, I'll have an account in the system. - Now I can do viewing, ordering, view order history, and search for an item.

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User Story #02

ID	US #02
Name	Login
Actors	Registered User (have an account)
Description	As a user, I want to be able to open the system, and login to it with my account.
Preconditions	have an account on the website.
Postcondition	can use the website with my account.
Acceptance Criteria	Given that I have an account in the system, I open the website, then the "Register" and "Login" button appear. - I'll choose the Login button. - The Login form appears to be filled with email and password. - After filling in the form I confirm my input. - the account will open after that. - Now I can do viewing, ordering, view order history, etc...

User Story #03

ID	US #03
Name	Contact Us
Actors	General User
Description	As a user, I want to be able to contact the administrator of the system to complain about an issue.
Preconditions	-
Postcondition	can contact the admins of the system.
Acceptance Criteria	- choose the Facebook, LinkedIn, or GitHub page link. - after choosing one of them, the system should direct me the specified way, and I should be able to contact the admin.

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User Story #04

ID	US #04
Name	Login To Website as an Admin.
Actors	Admin of the website.
Description	As a Customer Who pays your complete salary, I want to open the app then enters my email and password and click Log-in button to complete login
Preconditions	Admin has an account and not logged in.
Postcondition	can use all admin credentials.
Acceptance Criteria	Given I'm a logged-out system user and I'm on the Sign-ln page, when I fill in the "Email" and "Password" fields with my authentication credentials and I click the Sign-ln button then the system signs me in

User Story #05

ID	US #05
Name	Edit Product Details
Actors	Admin of the website.
Description	As a Customer Who pays your complete salary, I want to edit any product with all its details.
Preconditions	Admin has an account and logged in.
Postcondition	can edit product.
Acceptance Criteria	Given that I want to edit a product, I see all products with 2 buttons 'Edit' and 'Delete', I'll choose the edit button then a form with the product information's appears to me with ability to change any info.

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User Story #06

ID	US #06
Name	Add new product.
Actors	Admin of the website.
Description	As a Customer Who pays your complete salary, I want to be able to add a new product with all its details.
Preconditions	Admin has an account and logged in.
Postcondition	can add new product.
Acceptance Criteria	Given that I want to add a new product, I'll click the add new product button, then a form will appear to me to fill in with the product information.

User Story #07

ID	US #07
Name	View all Products
Actors	General User / Logged in User / Admin
Description	As a general/logged in/admin user I want to be able to view all products of the website.
Preconditions	-
Postcondition	-
Acceptance Criteria	Given that I opened the website I want to able to see all the products.

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User Story #08

ID	US #08
Name	View Product Details.
Actors	General User / Logged in User.
Description	As a general/logged in user I want to be able to view the details of the product.
Preconditions	-
Postcondition	View Product Details.
Acceptance Criteria	Given that I opened the website I want to able to see all the products with details button, when click the button a page appears to me with all details of the product, "add to cart" button, and a counter for the wanted quantity to add to the cart.

User Story #09

ID	US #09
Name	Add Product to shopping cart.
Actors	Logged in User.
Description	As a logged in user, I want to be able to add product to my shopping cart.
Preconditions	Must be logged in to the website.
Postcondition	Shopping cart with the product added to it.
Acceptance Criteria	Given that I opened the details page of a product, I want to specify the quantity that I want to add to the cart, then click the add to cart button, then the cart page appears with all the cart details.

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User Story #10

ID	US #10
Name	View Shopping Cart
Actors	Logged in User.
Description	As a logged in user, I want to be able to view my shopping cart.
Preconditions	Must be logged in to the website.
Postcondition	Shopping cart details.
Acceptance Criteria	Given that I opened the website I want to see "Cart" button with number of the products in it, when I click it the shopping cart appears to me with all the products in it and all it's details.

User Story #11

ID	US #11
Name	Remove Product from Shopping Cart
Actors	Logged in User.
Description	As a logged in user, I want to be able to remove any product from my shopping cart.
Preconditions	Must be logged in to the website.
Postcondition	Remove the product from the shopping cart.
Acceptance Criteria	Given that I opened the shopping cart details page, I see all products in it with a button with each product to remove it from the cart, when I click the **button,** the product must be removed from the cart.

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User Story #12

ID	US #12
Name	Checkout
Actors	Logged in User.
Description	As a logged in user, I want to be able to checkout my shopping cart and make an order.
Preconditions	Must be logged in to the website.
Postcondition	Make an order with products in the shopping cart.
Acceptance Criteria	Given that I opened the shopping cart details page, I see Checkout button after all the products details, when click it the shopping cart should be empty and the make an order and take me to the all orders page.

User Story #13

ID	US #13
Name	View all orders.
Actors	Logged in User.
Description	As a logged in user, I want to be able to view all my orders.
Preconditions	Must be logged in to the website.
Postcondition	View all orders I made.
Acceptance Criteria	Given that I opened the website, I want to see the "All Orders" button, when I click on it, all orders page should appear to me, with the ability to click on any order to see it's details.

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User Story #14

ID	US #14
Name	View Order Details.
Actors	Logged in User.
Description	As a logged in user, I want to be able to my order details.
Preconditions	Must be logged in to the website.
Postcondition	See all the details of the order.
Acceptance Criteria	Given that I opened all orders page, I want to click on any order I want to see its details, and a cancel button appears in case of the order status is "Ordered" or "Shipped".

User Story #15

ID	US #15
Name	Cancel an order.
Actors	Logged in User.
Description	As a logged in user, I want to be able to cancel my order.
Preconditions	Must be logged in to the website.
Postcondition	
Acceptance Criteria	Given that I opened my order details page, I want to see the cancel button of the order if the order status is "Ordered" or "Shipped", when click it the order will be canceled and the status will be changed to canceled, if the status is "On The Way" or "Delivered" the button will not appear at all.