

#### INTRODUCTION

E-commerce (electronic commerce or EC) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business, business-to consumer, consumer-to-consumer or consumer-to-business. E-commerce shops have become part of our daily lives. Technological advancement has made it possible for people to sit in the convenience of their homes and still shop online without going to a physical shop. Africans have also joined the trend of e-commerce business, so this project is meant to design an eCommerce online shop so that the people in Ghana (Africa)will be able to purchase their goods and services online.

This project is mainly divided into two main categories: The Administrators and the Customers/Users. The store manager and the staff members operate as the administrators. They can add, edit, update products or, delete products thus they able to change the names of products, change prices and, add or remove products. The customer can search for products selection, update the cart, remove products from the cart and check out from the shop. The customer is also able to update his information such as names, address and other data. The User is only able to browse the online shop and add a product to the cart. The user is limited to the use of the shop. This thesis contains eight chapters to explain the project.



#### **ABSTRACT:**

The purpose of Online E-commerce System is to automate the existing manual system by the help of computerized equipment's and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with

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Online E-commerce System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus, it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.



#### **OBEJCTIVE:**

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Online E-commerce System The main objective of the Project on Online E-commerce System is to manage the details of Clothes, Item Category, Shopping Cart, Customer, Order. It manages all the information about Clothes, Delivery Address, Order. The project is totally built at administrative end and thus only the administrator is guaranteed the access

- 1. Provides the searching facilities based on various factors. Such as Clothes, Shopping Cart, Customer, Order Provides the searching facilities based on various factors. Such as Clothes, Shopping Cart, Customer, Order
- 2. Online E-commerce System also manage the Delivery Address details online for Customer details, Order details, Clothes
- 3. Manage the information of Item Category
- 4. Shows the information and description of the Clothes, Shopping Cart



#### INTRODUCTION

The Software Requirements Specification is designed to document and describe the agreement between the customer and the developer regarding the specification of the software product requested. Its primary purpose is to provide a clear and descriptive "statement of user requirements" that can be used as a reference in further development of the software system. This Software Requirements Specification aims to describe the Functionality, External Interfaces, Attributes and Design Constraints [4] imposed on Implementation of the software system described throughout the rest of the document.

#### **PURPOSE**

Defining and describing the functions and specifications of the E-Commerce System (ECS) is the primary goal of this Software Requirements Specification (SRS). This Software Requirements Specification illustrates, in clear terms, the system's primary uses and required functionality as specified by our customer. The purpose of this document is to present a detailed description of the product.

The proposed system has the following requirements:

- System needs store information about new entry of products
- System needs to maintain quantity record
- System needs to keep the record of Shopping Cart.



• System needs to update and delete the record

#### **Feasibility Study:**

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done when there are additional requirements to be added.

**Technical Feasibility:** This included the study of function, performance and constraints that may affect ability to achieve an acceptable system

- Economical feasibility: This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factor
  - ➤ All hardware and software cost has to be borne by the organization
- Operational Feasibility: No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken all self-explanatory even to a layman. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system

### 1.1 Product Scope

The software system being produced is called Book E-Commerce System. It is being produced for a customer interested in selling apparels via the Internet. The Book E-Commerce System will allow any user to create an account to become a customer. The customer, through the process of account creation, will have the option to become a member of the site. The system



will allow customers to browse, select and add books to a shopping cart. Then, provided they have books in their shopping cart, check out books in shopping cart and decrement the stock that the inventory the system maintains. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Online E-commerce System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

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- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time
- The system generates types of information that can be used for various purposes
- It satisfies the user requirement
- Be easy to understand by the user and operator
- Have a good user interface

#### **Intended Audience and Document Overview**

**Intended audience:** The system is worth using by an audience that is interested on buying different apparels products online and benefit from facilities offered in such case. Facilities are saving time, saving money by selecting the best offer.

#### **Definitions, Acronyms and Abbreviations**



ECMS E-commerce management system

ECMS	E-commerce management system			
Item code	A unique identification code is assigned to single item			
Apparels	An instance of an item that has these additional attributes: Name, Price.			
Button	A user interface element that allows a User to click and inform the system to take an action			
Checkbox	A user interface element that allows a User to inform the system that he/she selected a particular item			
CRUD	Create, Retrieve, Update, Delete			
Customer	A person that is a user of the system but has created an account			
Inventory	An object that holds items available for purchase by the Customer			
Item	An individual entity in the inventory which has several descriptive attributes: Item no, Price, Reorder Threshold, Stock			
Manager	A single person that has the ability to create, retrieve, update and delete items in the store. This person cannot simultaneously act as a Customer and Manager			
Member	A person that is a customer of the system and has requested to be sent promotions			
Promotion	An item-wide percentage-off price discount applied to a Member's shopping cart			
Session	The time which a User is actively using the system			
Shopping Cart	An object that lists a customer's selected Items, their applied promotions and gives them an option to check out			
SRS	Software Requirements Specification			
Text Box	A user interface element that allows a User to input text to the system			
User	The person who operates the software product			



#### **Document Conventions**

Conventions for main title:

Font Face: CalibriFont Style: BoldFont Size: 34

Conventions for subtitle:

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Conventions for Body:

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o Font Size: 14

### 2. Overall Description

This section includes details about what is and is not expected of the ECMS system in addition to which cases are intentionally unsupported and assumptions that will be used in the creation of the ECMS system

### 2.1 Product Perspective

ECS is an online bookstore website which supports a number of functions for both the consumer and store's management. The software will empower the user, be it a professional or a non-professional person to efficiently manage any event at hand. The software, Event4u is intended to define a development methodology for the user, beginning with the requirements phase and



continuing through to the execution phase. As stated by the customer, there are no hardware or software requirements beyond these including, but not limited to, memory or specific software packages that need to be utilized nor software packages that need not be utilized

#### 2.2 Product Functions

These are the major functionalities of the software; E-commerce management will achieve:

- Maintain data associated with the inventory (collection of apparels)
- Each apparel product has name, item no, barcode
- The inventory also keeps track of the stock/quantity of each product
- Maintain records for many customers
- A customer has a username (unique across all users), password (no restrictions), email address (no restrictions)
- Anyone may sign up for a customer account.
- Show a listing of available books
- Shopping cart
- Contact for customer support
- A promotion is a percentage discount that can be applied to an entire order

#### 2.3 User Characteristics

The typical BECS user is simply anyone that has access to the Internet and a web browser can use and access to the website. It is assumed that the user is familiar enough with a computer to operate the browser, keyboard and mouse and is capable of browsing to, from and within simple websites



### 2.4 Operating Environment

The product will be operating in windows environment. E-commerce management system is a website and shall operate in all famous browsers, for a model we are talking Microsoft Internet Explorer, Google Chrome and Mozilla Firefox. Also, it will be compatible with the IE 6.0. Most of the features will be compatible with the Mozilla Firefox and Opera 7.0 or higher version. The only requirement to use this online product would be the internet connection. These web browsers are preferred since they support HTML

#### 2.5 Design and Implementation Constraints

An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order

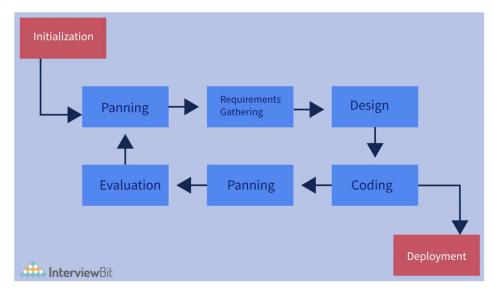
### 2.6 Software Model implementing for building Project

(ITERATIVE MODEL APPROACH)

In the Iterative model, iterative process starts with a simple implementation of a small set of the software requirements and iteratively enhances the evolving versions until the complete system is implemented and ready to be deployed. An iterative life cycle model does not attempt to start with a full specification of requirements. Instead, development begins by specifying and implementing just part of the software, which is then reviewed to identify further requirements.



This process is then repeated, producing a new version of the software at the end of each iteration of the model



#### 2.7 User Documentation

Provider: We have assumed that the ECMS will be running on a properly working web server and database system with an Internet connection that allows this system to perform all communications with clients

The assumptions are: -

- The coding should be error free.
- The system should be user friendly so that it is easy to use for the users.
- The system should have more capacity and provide fast access to the database.
- The system should provide search facility and support quick transactions.
- Users may access from any computer that has internet browsing capabilities and an internet connection



### The dependencies are: -

- The specific hardware and software due to which the product will be run
- On the basis of listing requirements and specification the project will be develop and run
- The end users (admin) should have proper understanding to the product
- The information of all users must be stored in a database that is accessible by the e-commerce management system

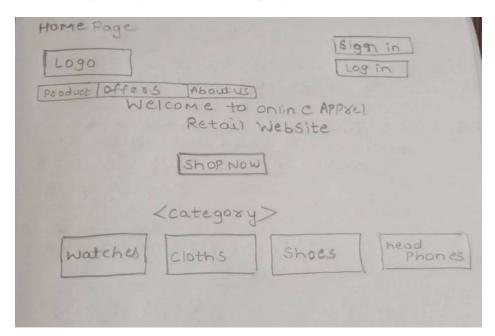
### 3. Specific Requirements

3.1. External Interface Requirements

#### 3.1.1. User Interfaces

- Admin can View, Edit and Delete everything on the product
- User can view the whole information
- User will create an account with his email id and password and they login through their credentials.

Then after login they select the category and add to the cart and checkout

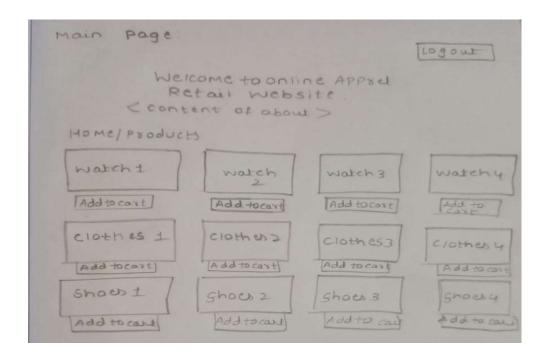




### **Home Page**

Sign UP:-	
Email add ress	
Password	
First name.	Last name
Dagree terms	& condition.
sign u	P
Alzeody register	ed? 10gin.
	close !

Sign Up Page





#### **Main Page**

# 3.1.2. Hardware Interfaces Not applicable

#### 3.1.3. Software Interfaces

- XAMPP
- Notepad++
- MySQL server

#### 3.1.4. Communications Interfaces

The Customer must connect to the Internet to access the Website. A web browser is a basic necessity for the software to be deployed. Authentication is done by OpenID which uses HTTPS for security

• Dialup Modem of 52 kbps

### 3.2. Behavior Requirements

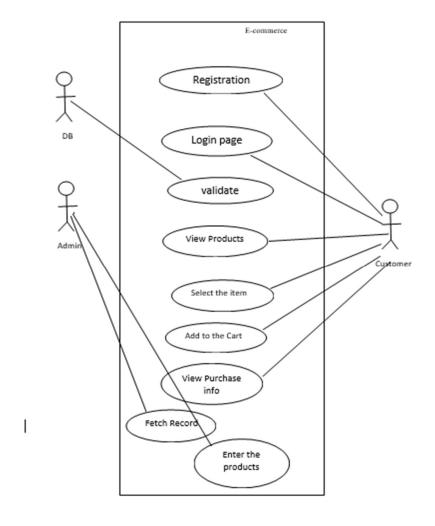
#### 3.3.1 Use Case View

The purpose of this diagram is to demonstrate how objects will interact with BECS and map out the basic functionality of the system. Below is a list of the elements that you will see in the diagram on the next page as well what is included in the use case templates that follow

- 3 actors have been identified for the product, E-commerce and each of them are shown with their own set of use cases
- The actors are depicted as stick figures in the use case diagram



 An overall system view of the software, Event4u is depicted with all the actors and their corresponding use cases put together



#### **References:**

- IEEE-SA Standards Board, "IEEE Recommended Practice for Software Requirements Specifications", Software Engineering Standards Committee of the IEEE Computer Society, June 25th 1998
- 2. PHP: <a href="http://www.phptherightway.com/">http://www.phptherightway.com/</a>
- 3. HTML 5: <a href="http://www.W3schools.com/">http://www.W3schools.com/</a>

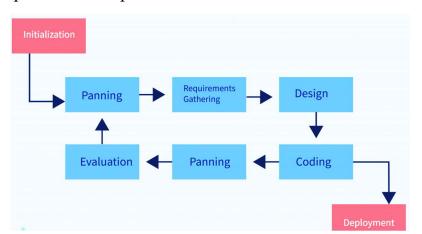


#### PROJECT PLAN DOCUMENT

#### 1. Life Cycle Model:

An Iterative model is suitable for developing online E-commerce management system.

- The iterative process model is a software development life cycle (SDLC) approach in which the initial development work is conducted based on initial requirements that are clearly defined, and subsequent features are added to this base software product through iterations until the final system is completed
- This SDLC approach does not aim to create a comprehensive specification plan. Instead, the iterative development model is a method for breaking down any major software development project into smaller chunks
- It is specifically designed to start with the bare minimum requirements and only construct a portion of the program iteratively
- It is also known as the cyclic model. After the initial phase, some phases occurs repeatedly and with the completion of each phase there is the scope of some improvement





2. Identify the tools which u want to use it throughout the lifecycle like planning tool, design tool, version control, development tool, bug tracking, testing tool.

Tools to be used throughout the lifecycle of the project. Software development teams tend to use management tools they like and have a set budget for.

Planning tool- Ganttpro, Jira, Team Gantt

Design Tool- Canvas, Artesian Studio

Version Control- GitHub, Visual studio

Development tools- HTML, CSS, PHP

Bug tracking and testing tool- Zoho bug tracker, Smartsheet

3. Determine all the deliverables and categorise them as reuse/build components and justify the same

Irrespective of the chosen delivery methodology and approach, it's important to have resources working in tandem from the following areas in the project

- Solution Assurance This will encompass solution architects from the customer side as well as solution architects from the various implementation partners. It will be responsible for governance and will provide the steer if any cross-team design issues arise
- Product presentation- The product presentation function provides the customer with information about the product through the user interface (browser)
- Order entry- The order entry function allows a customer to place an order for selected products



- Order fulfilment The order fulfilment function provides for the delivery of the product to the customer. The delivery can be digital for products such as music, software, and information
- Product support The product support function provides assistance to the customer related to the product after it has been received
- Data acquisition Certain data is collected from a customer who places an order, including name, address, telephone number, e-mail address, credit card information, and product-ordered details (item, color, size)

#### **Internal project deliverables**

- 1. Initial design
- 2. Time-tracking report
- 3. Project budget report
- 4. Progress report

### **External project deliverables**

- 1. Progress report
- 2. Initial design
- 3. Final design
- 4. Final product

### **Reusable components:**

- Architectural Design pattern
- Coding
- Functional Libraries & Frame work
- Artifact
- GUI



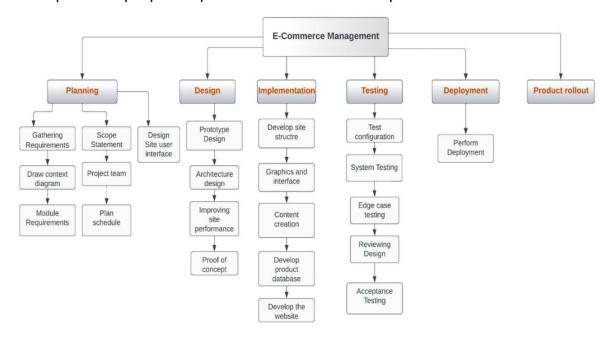
Build deliverables are final outputs that directly satisfy one or more of the project requirements. These are a bit more exciting

- 1. Fully-developed app
- 2. Live website
- 3. Complete content strategy
- 4. Finalized architectural blueprint

#### 4: Create a WBS for the entire functionalities in detail

A Work Breakdown Structure (WBS) is a deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables

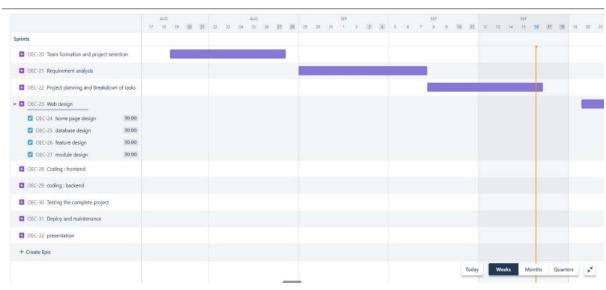
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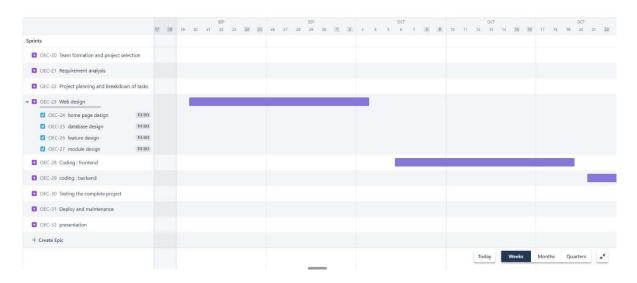


### A deliverable-based WBS for an ecommerce website

1. Gantt chart was made for planning and scheduling the project



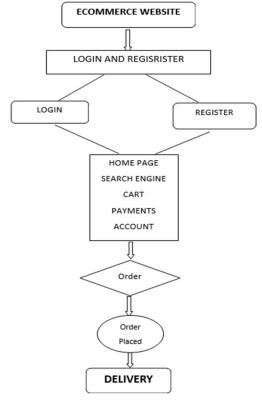
Phase 1



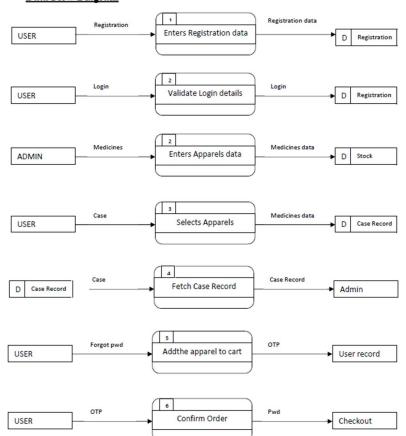
Phase 2



### **Design Diagram**



#### Data Flow Diagram





#### **Test Cases**

E-commerce application/sites are web applications or mobile application too. So, they undergo all the typical test types.

- Functional Testing
- Usability Testing
- Security Testing
- Performance Testing
- Database Testing
- Mobile Application Testing
- A/B testing.

### **Functionality**

First of all, we'll run through the main functionality of an ecommerce website that needs to be tested. Your website may not have all these items, or indeed may have some not included here.

### Main pages

- Home page
- Featured products
- Special offers
- Information pages
- About page
- Shipping information



- Returns policy
- Terms page
- Privacy policy

There are many features in an eCommerce website – hero carousel/slider, search, filter, product details, payments, checkout, etc. each having a has a predefined functionality.

#### **General Test Cases**

- The user should be able to navigate to all the pages in the website
- There should be a fallback page for any page load errors
- Verify that all the links and banners work properly
- Search results should be displayed with the most relevant item being shown first
- All data related to the product title, price, images, description are all visible clearly
- Maintain a session for each user and test verify the session times out after a while

TEST	MODULE	TEST	PRECON	TEST STEPS	<b>EXPECTED</b>	ACTUAL	TEST
CASE	NAME	CASE	DITION		RESULTS	RESULT	RESUL
ID		DECRIPT					T
		ION					
OE-1	Login	Check	The	Enter valid	Users should	User is able	pass
	User	Keeping	email	values in	be registered	to register	
	Interface	Password	and	the required	successfully.	successfully	
			password	fields.	A successful	with	
			must be	2. Click the	registration	required	
			registere	Register	message	field	
			d first	button.	should show.		
OE-2	Login	Check all	The	1. Enter	It should not	Logged in	pass
	Email	the valid	email	valid Emails	show any	successfully	



	validation	emails	and	chandan22	validation	with valid	
			password	@gmail.co	message	email and	
			must be	m		password	
			registere	2.chad@gm			
			d first	ail.com			
				2. Click on			
				the Register			
				Button.			
OE-3	Signup	Check	Signup	Click	Clicking	Signup is	nogg
OE-3	Option for	whether		Signup link	signup link	successful	pass
	new users	the	page must be	Signup ilik	takes the user	Successiui	
	new users	signup	present		to signup page		
		link for	present		successfully		
		the new			Buccessiany		
		user is					
		working					
		<u> </u>					
OE-4	Accepting	User	Terms	Click on	User should	User Not	Pass
	terms and	should	and	check box	not able to	able to	
	conditions	read and	condition	of terms and	register	register	
	in signup	accepting	check	conditions	succesfull if	successfully	
	page	terms	box		terms and		
		and	should be		conditions is		
		condition	present		not accepted		
OF 5	C	<b>T</b> T	T,	C1: 1	66 11 14	T. 11 1	
OE-5	Confirm if	User	Items	Click on	"added to	Item added	pass
	the item is	should	with add	add to cart	cart" and	to cart	
	added to	add an	cart should be	button	item should	successfully with 'added	
	the cart	item to is			be present in the cart	to cart	
		cart	present		the cart		
						message	



OE-6	Confirm if	The total	All the	Click on add	Total price must	Total price is	Pass.
	total price	price of	items must	to cart button	be calculated	calculated	
	of all items	the item is	be present	of 2 or 3	and displayed in	and	
	is	calculated	in the cart	items and go	the cart	displayed.	
	calculated	and		to cart.			
	and	present in					
	displayed	cart					

### **Adding Additional Modularity:**

We can further modularise the out shopping cart by adding payment receipt which gives a separate page that contains all items with payment method and list of items purchased.

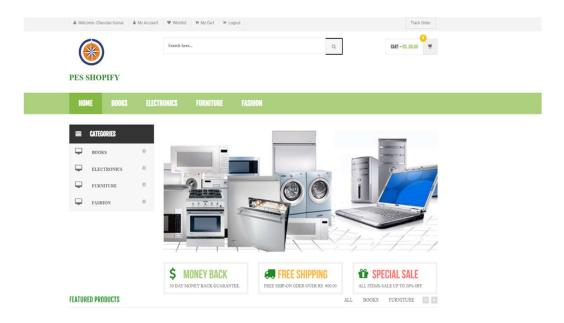
### **Boundary Value Analysis**

- > Boundary values help us to find the efficiency of our code or project.
- > The boundary values are defined as minimum and maximum acceptable values and the values immediately before and after them, respectively.

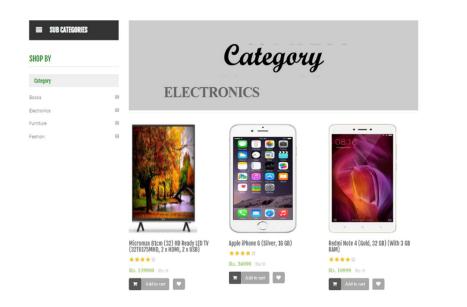
Testcas	as Module test-case		Test steps	Test	expected	Actual	result
e_id	d name			data	result	result	
OE -1	-1 cart- products		1. get into	valid	added to	1product	Pass
	adding	into cart	login page	action	cart	to cart	
			(initially cart				
			is empty)				
			2.click on				
			add to cart				
OE-2	DE-2 cart- product		1. initially	Invalid	cart is	product	Fail
	removing out of cart		delete all	action	empty	removed	
			items in cart		nothing		
			(o items)		removed		
OE -3	Entering	accept	1.signup	Invalid	enter	accept	Fail
	password	length of	page	action	pass	pass<10	
		10			Len>10		



### **Screenshots of output**

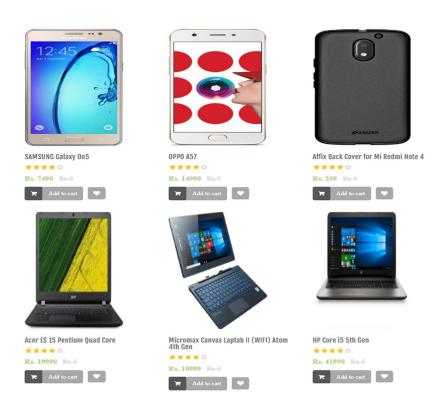


### **Main Page**

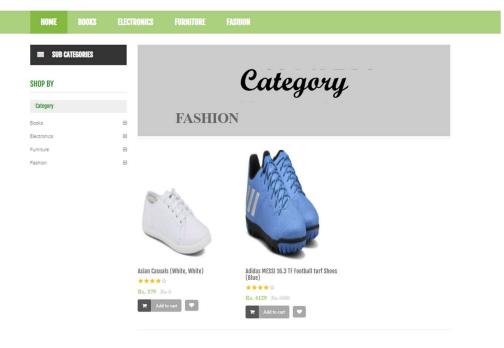




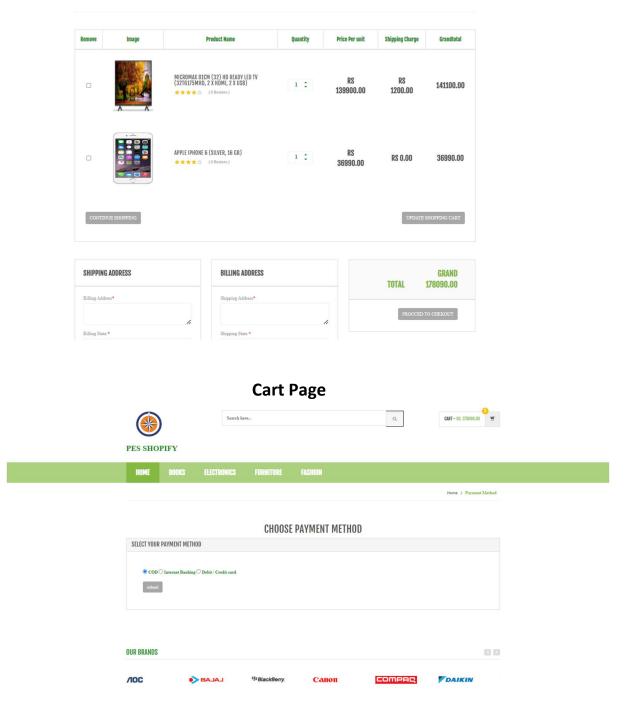
### **Category**



#### PES SHOPIFY



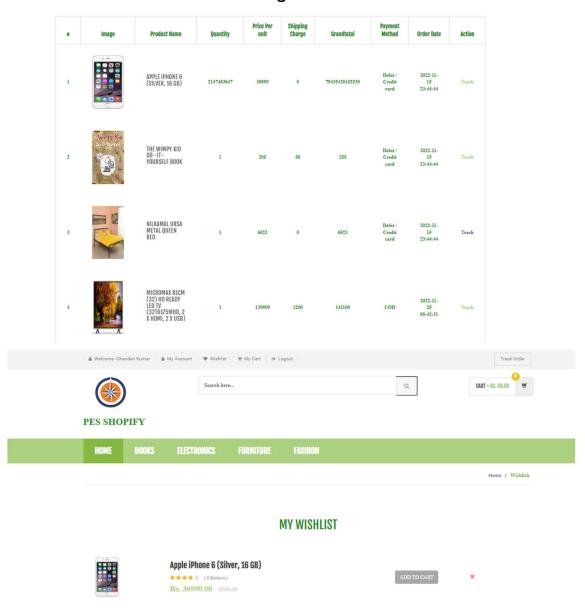




**Payment page** 

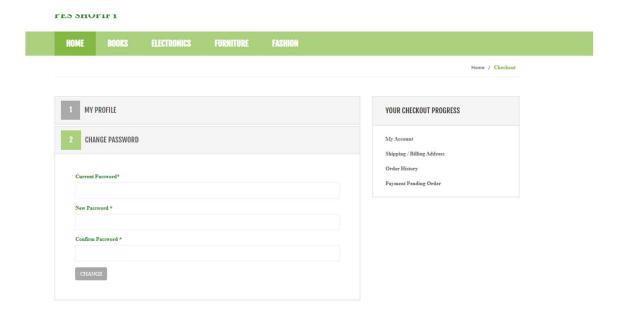


### **Tracking info**

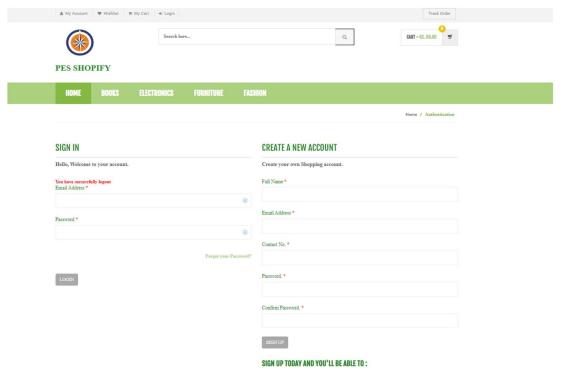


**My Wishlist** 





### Profile and change password module



Login and signup page