Hong Kong Institute of Vocational Education (Tsing Yi)

Department of Information and Communications Technology

Higher Diploma in
Software Engineering

Human Computer Interaction and GUI Programming

Module Assignment

Submit Date: 5th December 2016

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Name: Au Chi Chung, Yu Kwok Ho
Student Number: 150533022, 150031347
Class: IT114105/ HDSE-2A

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1. User Analysis

1.1. User characteristics

In this project, our target users are the IVE students and we may narrow the user group by specifying which campuses we aim at. And we integrate the needs with different subject of IVE students who need the practical and cost-effective products.

Learning style

- Read-then-do style with the habit of portable reading with mobile devices.
- Need more instructions

Tool preferences

- Users have the knowledge of using controls and they know to control the website browser, such as users know the drop-down menus, frames, popup windows, search bar, etc.
- They accept to use the mouse or keyboard for browsing website and they have the experience for using tablet.

Physical differences

- Age: Teenagers with IVE students
- Gender: More male than female will buy electronic products.
- Basic font sizes (12 – 20 pixels)

Physical differences

- Age of target users are focus on teenagers with IVE students, sex of target are average but more male than female will buy electronic products.
- Target users have no vision limitations, such as color blindness, but it may not affect the purchase intention from user for this product.
- Basic font sizes (12 – 20 pixels)

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Cultural differences

- Use the common language for display the website that compatible with different nationality of users

Knowledge of job

- Use computer frequently
- Mainly for leisure or doing research

Application familiarity

- A computer expert who can diagnose simple problems and can perform a complex series of tasks.

1.2. Techniques for observing and listening to users

In part of ingratiate the needs of our users, we have considered the visibility of the system status and the match between system and the real world. And then, we hope to improve the user control, freedom use, consistency, and flexibility. In view of the standards for our project, we focus on the "Efficiency of use" and the "Error prevention" of our system. Also, the user-interface of the website that we choose of the aesthetic and minimalist design and it is the way for showing the comfortable experience to the users.

On the other hand, our e-commerce website are easy-to-use that user almost don't need to learn how to control the process. It is because the perform tasks design are similar to the most of the online shopping site in market. Also, when users return to the website after a period of not using it, they can reestablish proficiency easily.

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1.3. Environment analysis

For the use of color in this website, we decide to use orange for the main color tone. Because orange is the logo of our product, "Amazon Kindle", and orange combines the elements of creativity, success and encouragement that the website may look like smart and simple.

For design the online shopping website that target users (IVE students) can easy to use in IVE, that the system can browse on phone or wireless browser. And assume target users may browse on the classroom or lecture room where may have noisy issue that our website will cut back the fancy user-interface and the multi-media, such as the video browser and fancy animation for popup message.

1.4. Recruiting users

We spend our time voicing the needs of our customers. Consequently, it's all too easy to fall into the trap of thinking we know what our users need without bothering to ask them. Also, we have post notice for the using testing in different IVE campus, and we believe a new feature is of value to our customer.

For testing the real product with the current users that they feel portable for "Amazon Kindle".

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1.5. Task analysis (HTA)

Hierarchical Task Analysis – Register as member or Login

0. In order to register as member or login system
    1. go to the BuyBestProduct Ltd. online shopping website
    2. register as member
        2.1. access login page ("Login Account" tab)
        2.2. select the campus in the selection box
        2.3. enter the student number
        2.4. enter the user name
        2.5. enter the password with more than 8 digits letter and number
        2.6. enter the password again for confirm
    3. press the "Register" button and click "OK" for confirmation
    4. access the login page and enter the username and password
    5. press the "Sign in" button for login

Plan 0:

Do 1-4-5.

If user has no existing account, do 1-2-3.
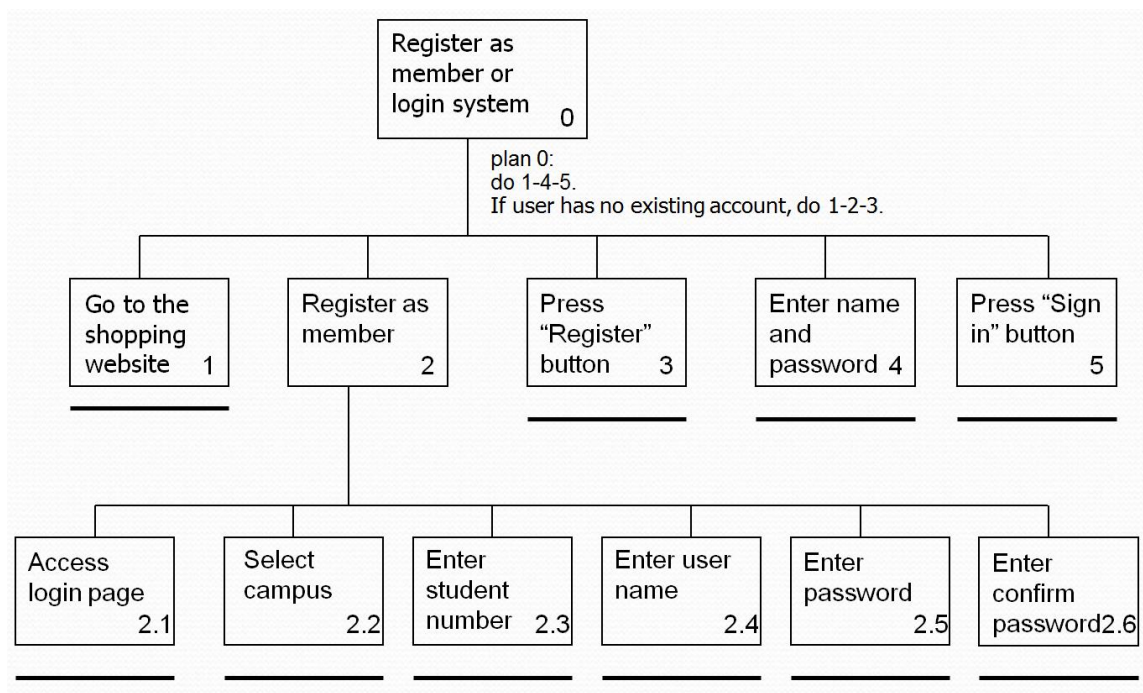
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Hierarchical Task Analysis – View and Search product information

0. In order to view and search product information
    1. go to the BuyBestProduct Ltd. online shopping website
    2. find the required product
        2.1. access product catalogue ("KINDLE" or "ACCESSORIES")
        2.2. enter search criteria
        2.3. identify required product
    3. select the product filter from the selection box
    4. click into the required item for browsing product details

Plan 0:
> Do 1-2-4.
>
> If user has been focus on the required product in current page, do 1-2-4.
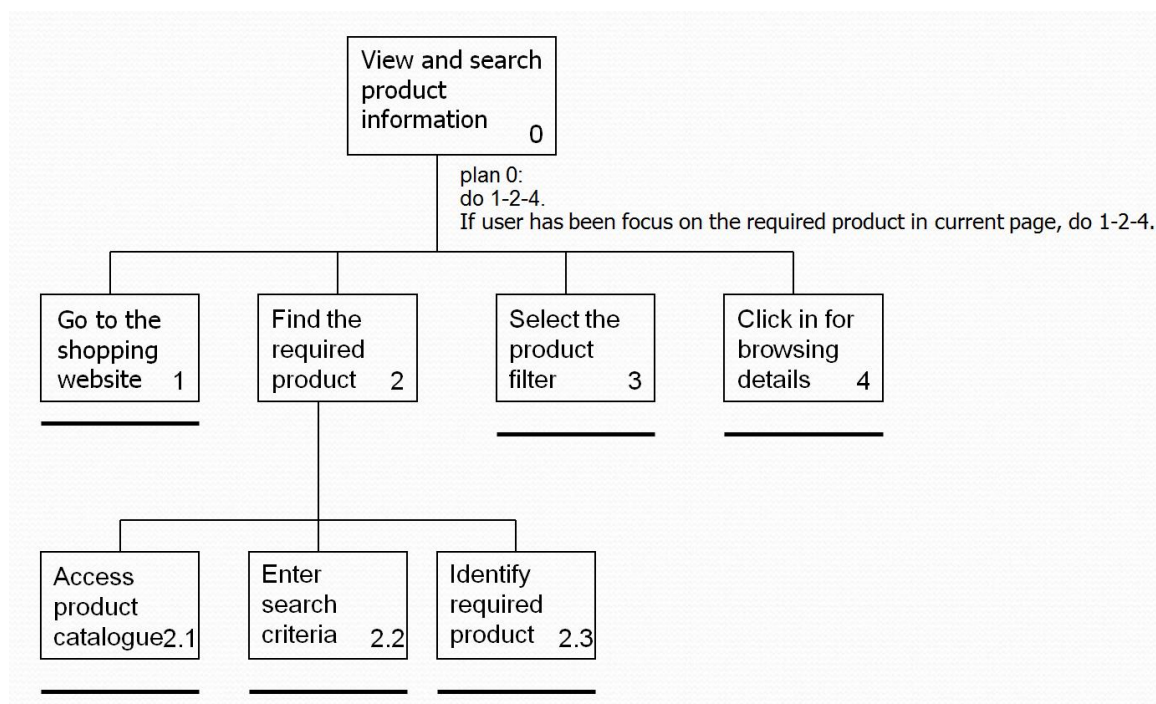
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Hierarchical Task Analysis – Shopping cart and Check out

0. In order to check out the selected product in shopping cart
     1. go to the BuyBestProduct Ltd. online shopping website
     2. find the required product
          2.1. access product catalogue ("KINDLE" or "ACCESSORIES")
          2.2. enter required product
          2.3. enter required quantity
          2.4. press "Add to cart" button for the required product
     3. press "EMPTY" button if need to re-select
     4. press "CHECK OUT" button of the shopping cart
     5. pick the order checkbox of required product and press "Checkout"
     6. select the payment method and enter the personal information for confirm order

Plan 0:
     Do 1-2-4-5-6.
     If users need to re-select shopping cart, do 1-3.
Plan 2:
     Do 2.1-2.2-2.4.
     If users need to select the quantity more than 1, do 2.1-2.2-2.3-2-4.
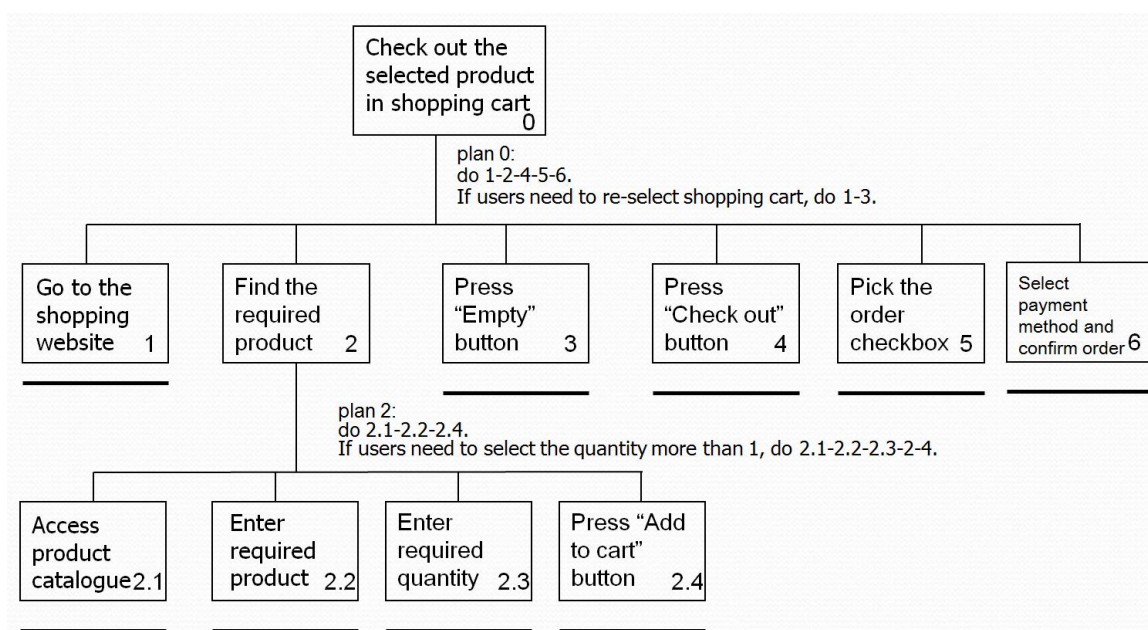
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Hierarchical Task Analysis – Gift redemption

1. In order to the gift redemption
    1. go to the BuyBestProduct Ltd. online shopping website
    2. find the required product
        2.1. access product catalogue ("GIFT")
        2.2. enter required product
        2.3. enter required quantity
        2.4. press "Add to cart" button for the required product
    3. press "CHECK OUT" button of the shopping cart
    4. pick the order checkbox of required product and press "Checkout"
    5. select the payment method with "Use Bonus Point"
    6.   Press "Confirm order" button for confirm order

Plan 2:

   Do 2.1-2.2-2.4.

   If users need to select the quantity more than 1, do 2.1-2.2-2.3-2-4.
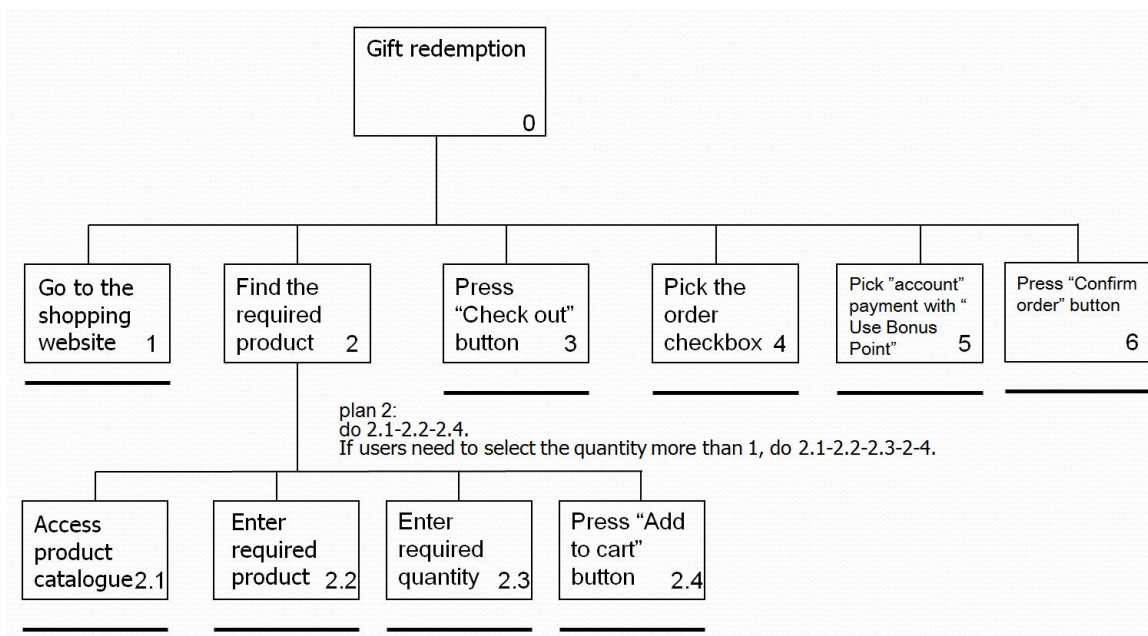
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2. Web Design Concepts

Mental Model
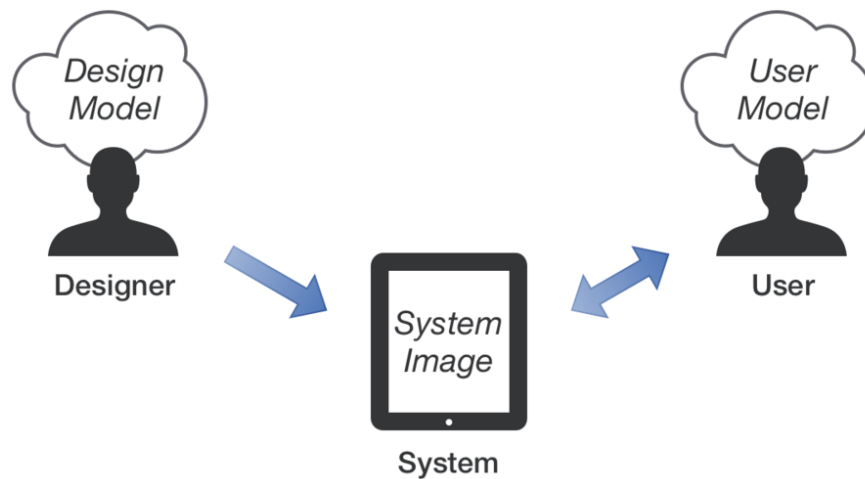
- Producers and users of applications both undergo a subconscious process of forming conceptual understandings of how their software works.
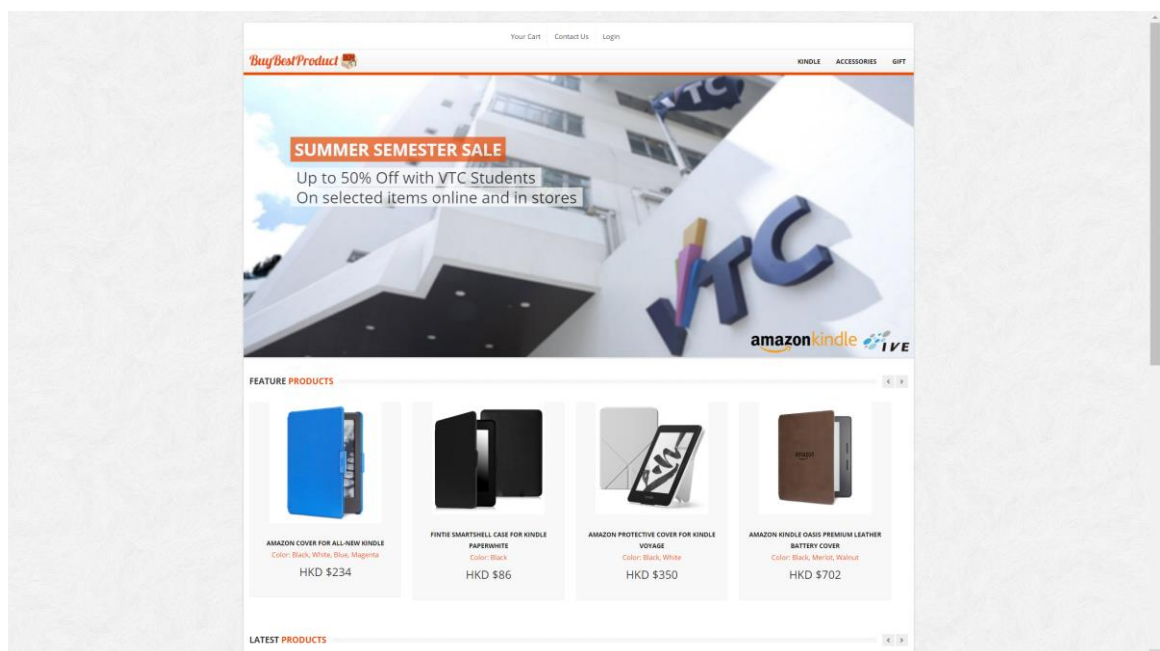
- We make out of the system prototype which can let user easy to use with the quick process for online ordering.

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Affordance

FEATURE **PRODUCTS**

AMAZON COVER FOR ALL-NEW KINDLE	FINTIE SMARTSHELL CASE FOR KINDLE PAPERWHITE	AMAZON PROTECTIVE COVER FOR KINDLE VOYAGE	AMAZON KINDLE OASIS PREMIUM LEATHER BATTERY COVER
Color: Black, White, Blue, Magenta	Color: Black	Color: Black, White	Color: Black, Merlot, Walnut
HKD $234	HKD $86	HKD $350	HKD $702

LATEST **PRODUCTS**

ALL-NEW KINDLE E-READER	KINDLE OASIS E-READER	KINDLE PAPERWHITE E-READER	KINDLE VOYAGE E-READER
6.3" x 4.5" x 0.36"	5.6" x 4.8" x 0.13-0.33"	6.7" x 4.6" x 0.36"	6.4" x 4.5" x 0.30"
(160 mm x 115 mm x 9.1 mm)	(143 mm x 122 mm x 3.4-8.5 mm)	(169 mm x 117 mm x 9.1 mm)	(162 mm x 115 mm x 7.6 mm)
HKD $624	HKD $2262	HKD $936	HKD $1560

- Feature products quick select function.

- Back to top function.

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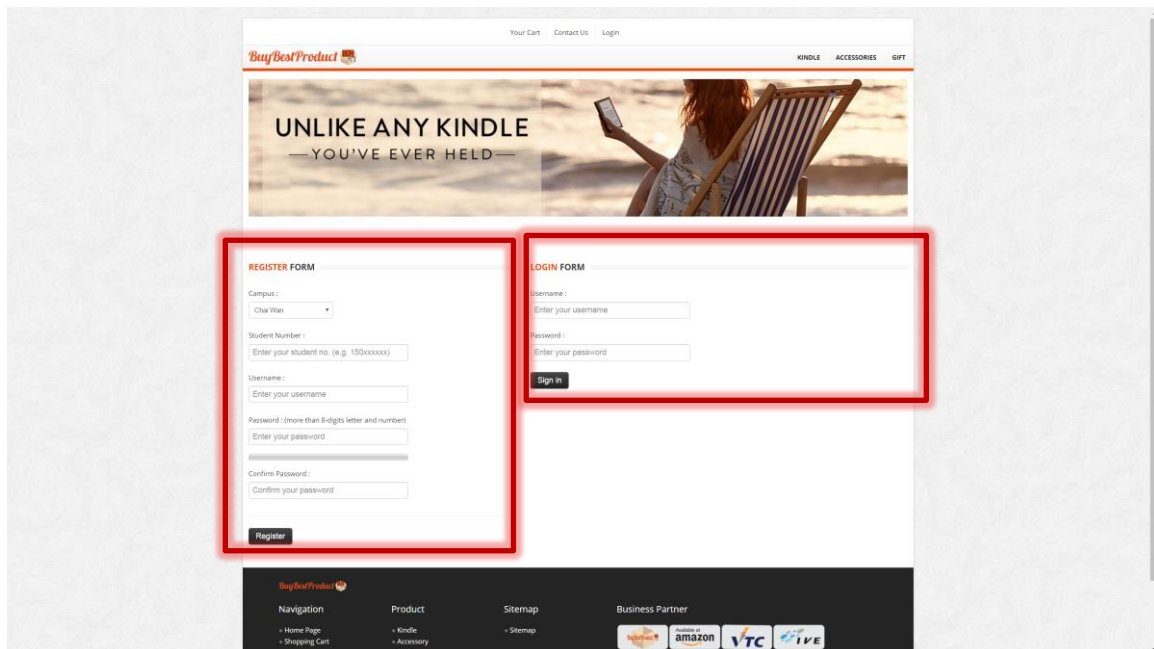
- Register account and Login account function.

- Register form and Login form.

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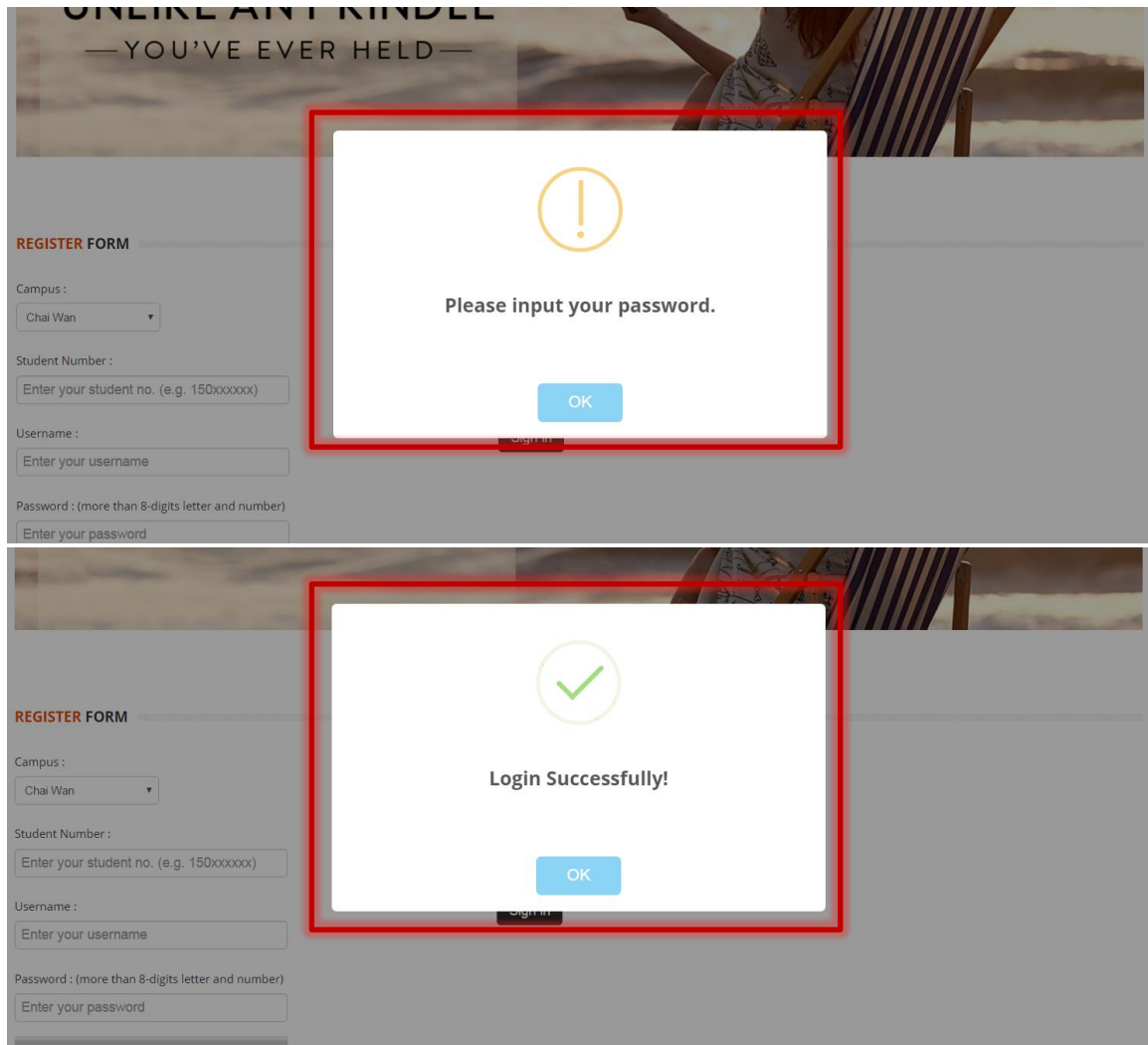
- Error message and successful message.
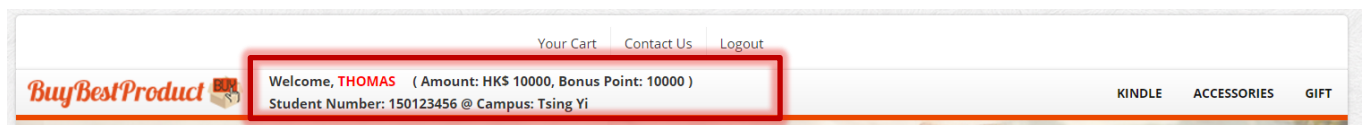
- Account information when successful login.

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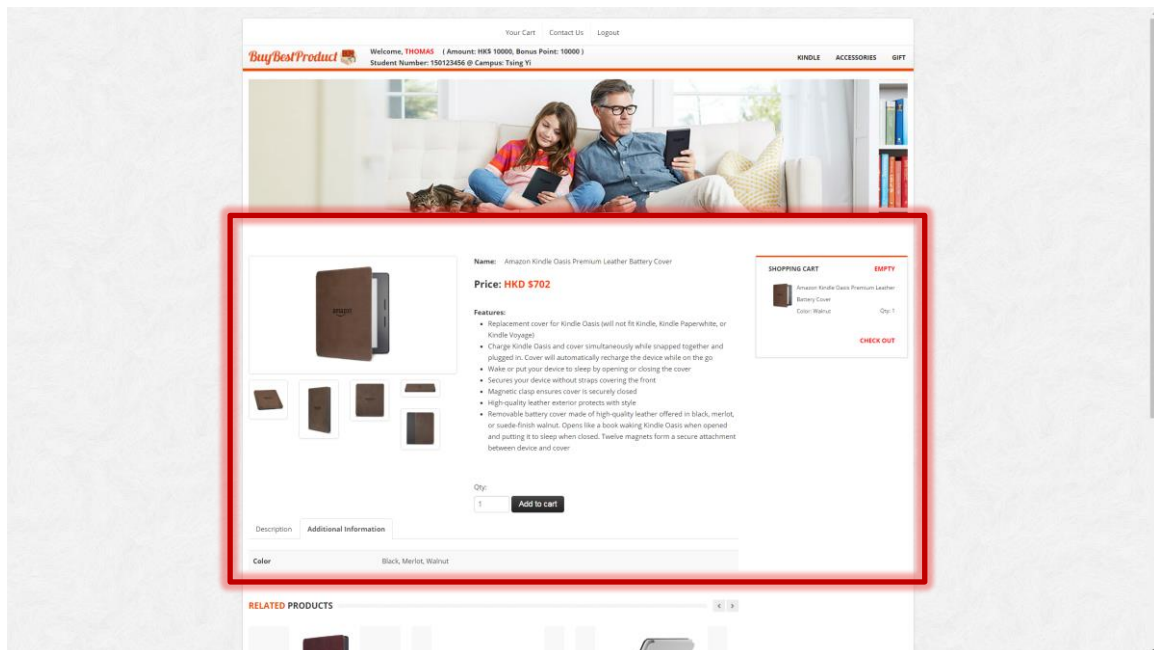
- Product information page.
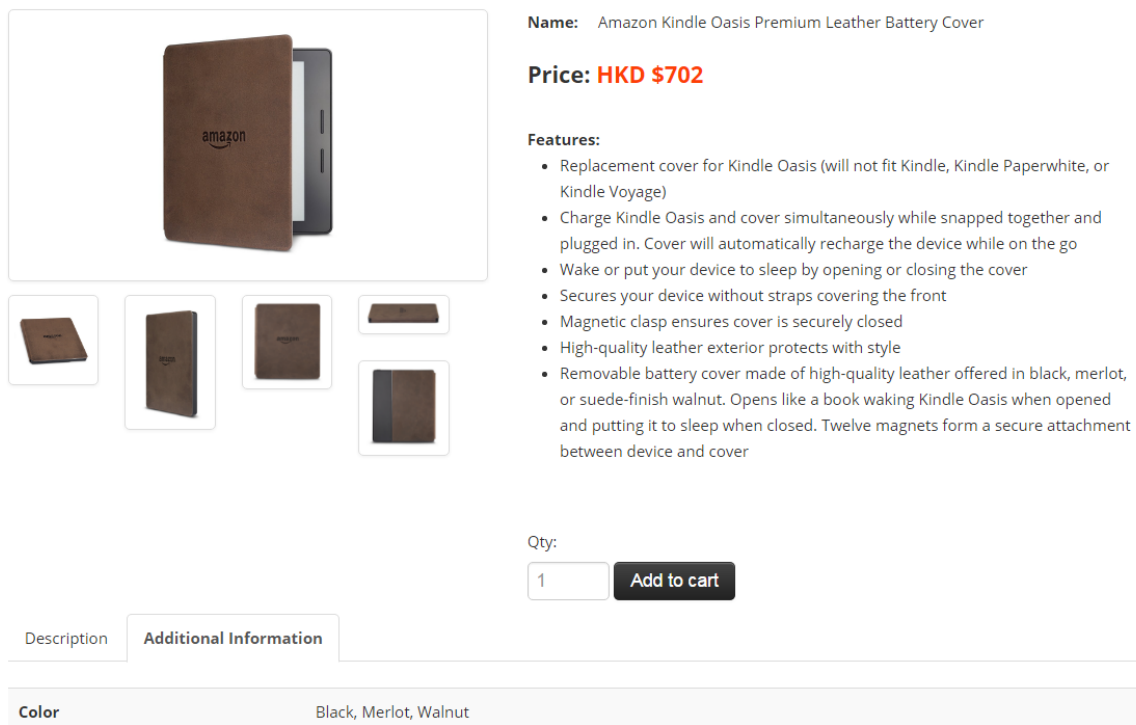
- Product description.

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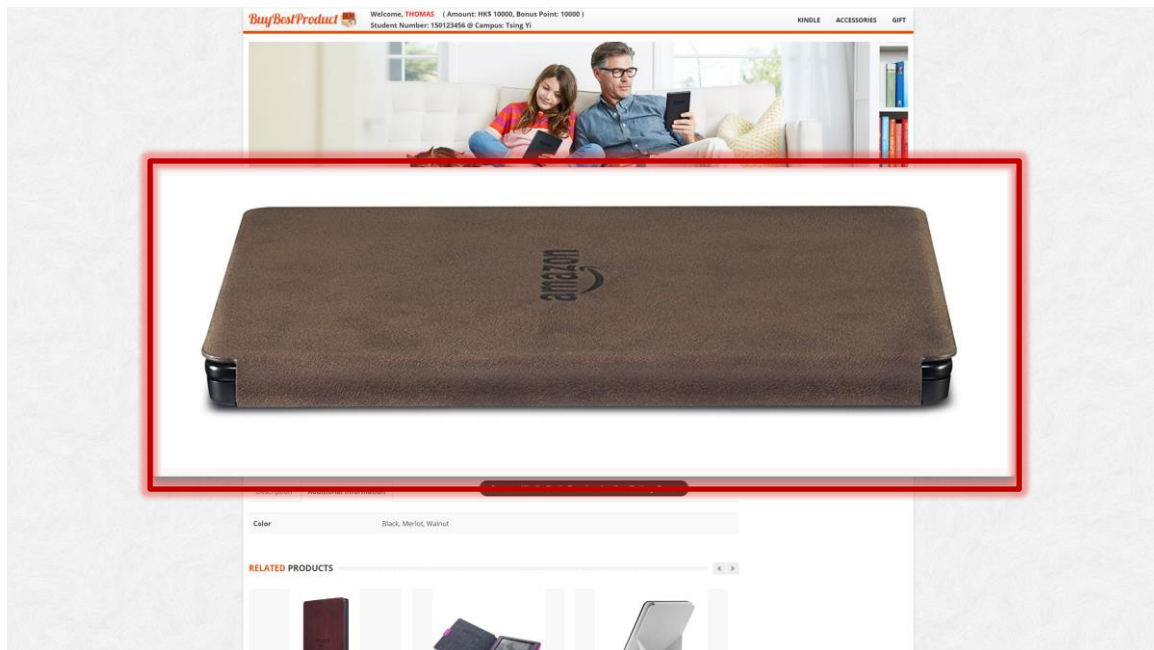
- Product image enlarge function.
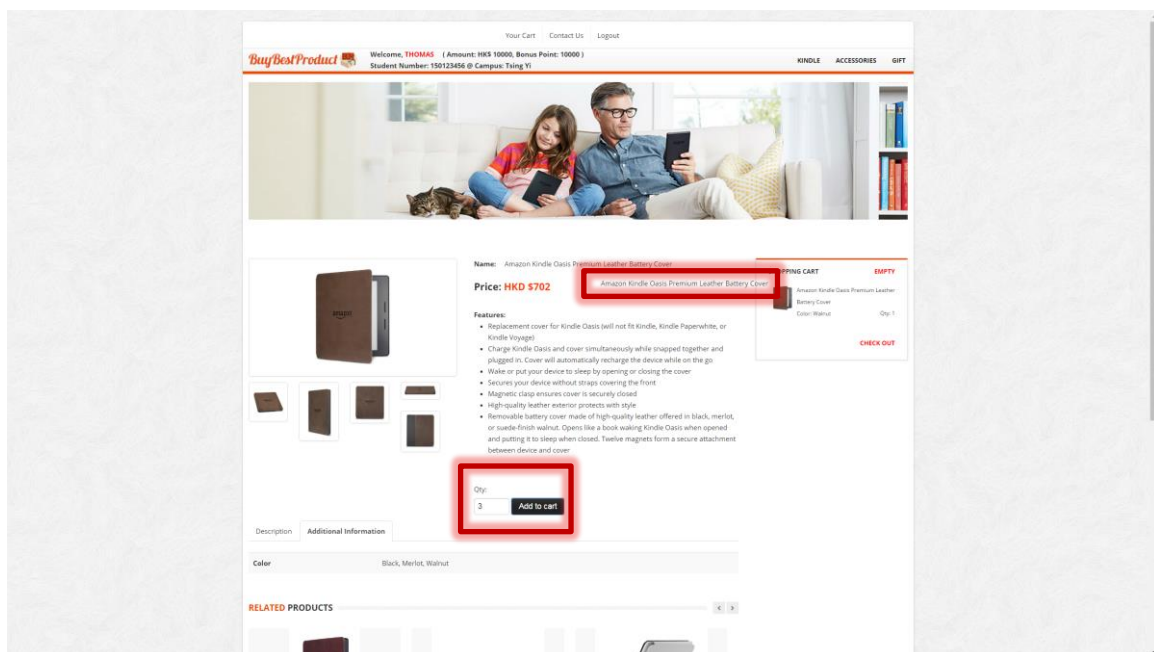
- "Add to cart" animation.

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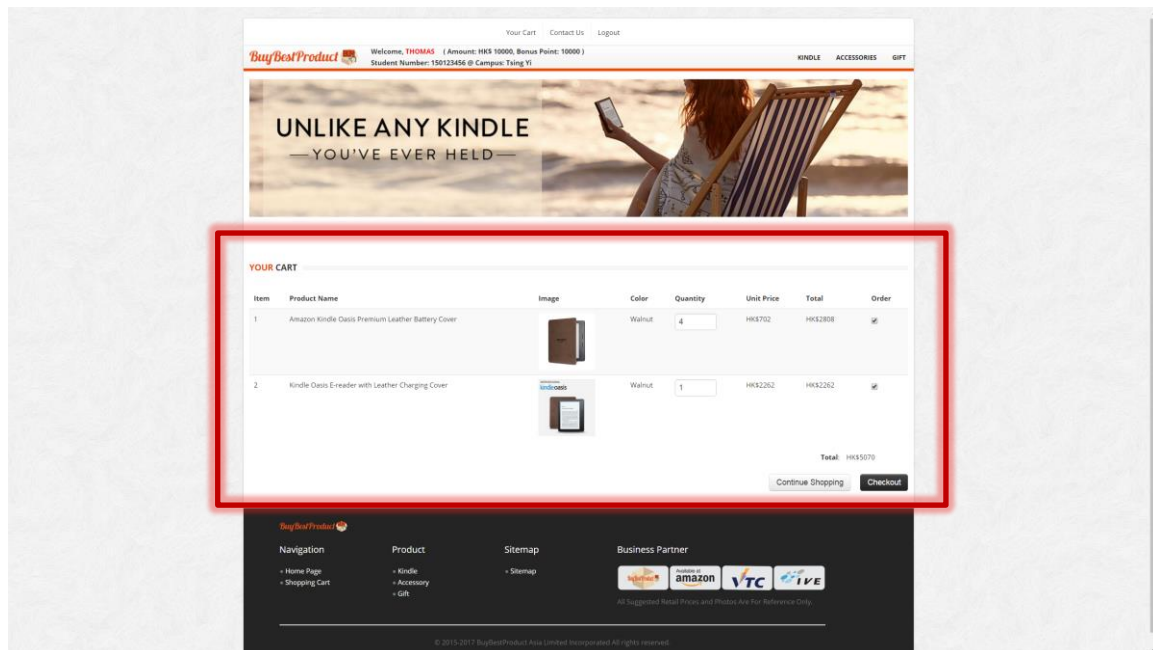
- Shopping cart.
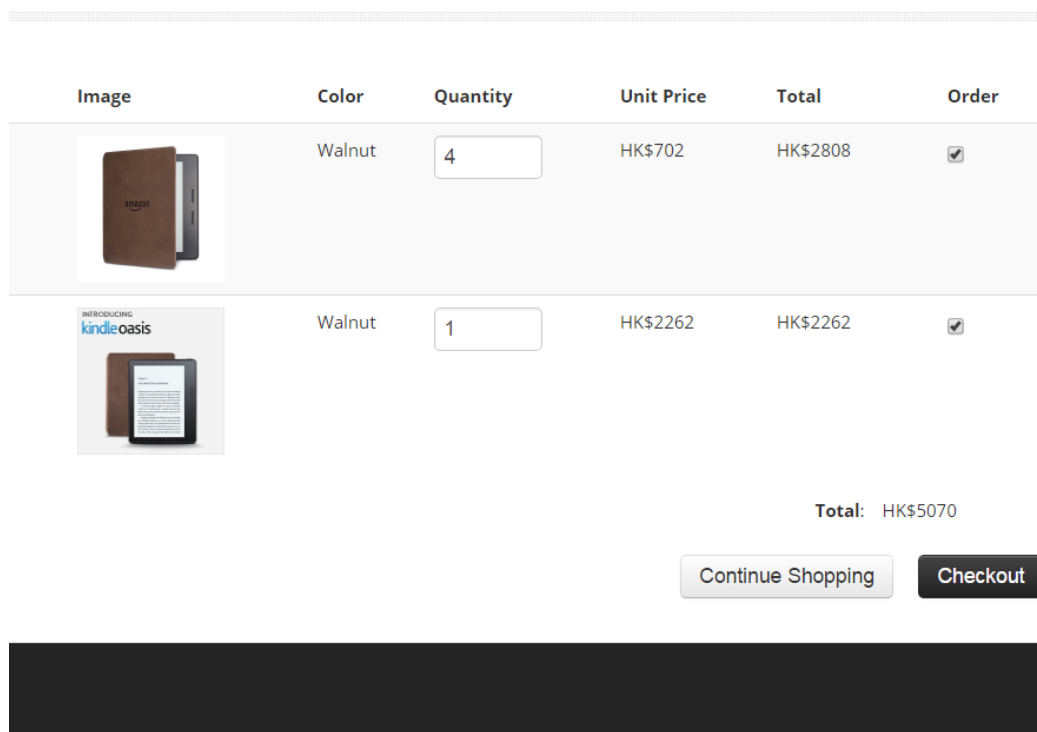
- User can select "Continue shopping" for adding more products in the shopping cart, or they can check out the list in the shopping cart.

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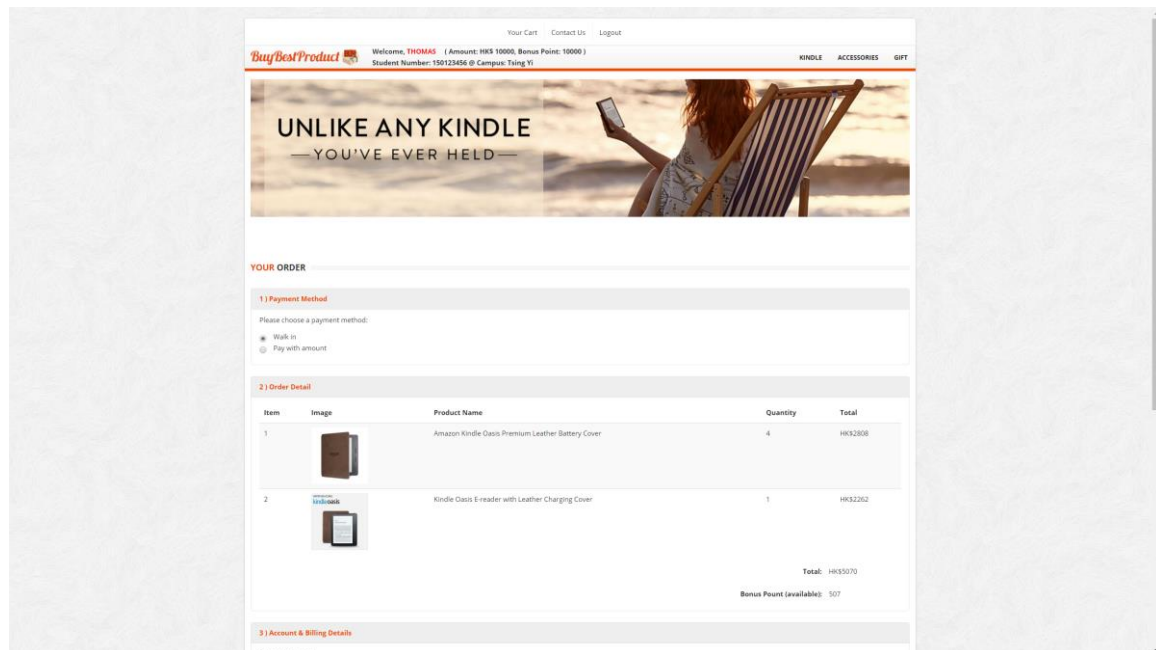
- Check out order list in shopping cart.
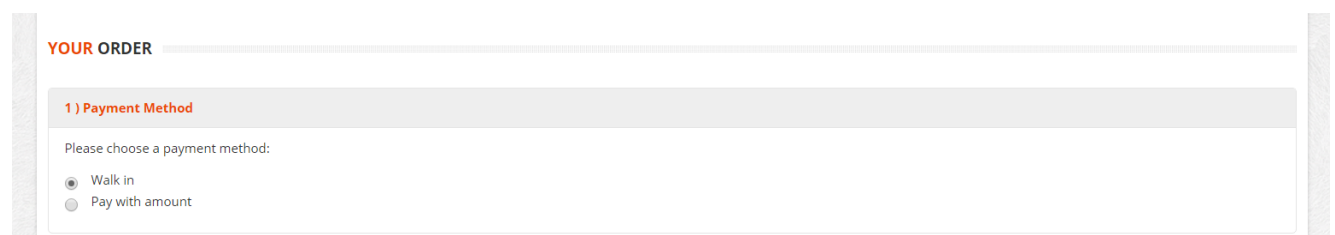
- Select payment method.

- Show the product details in order list

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- Enter personal information for order confirmation.
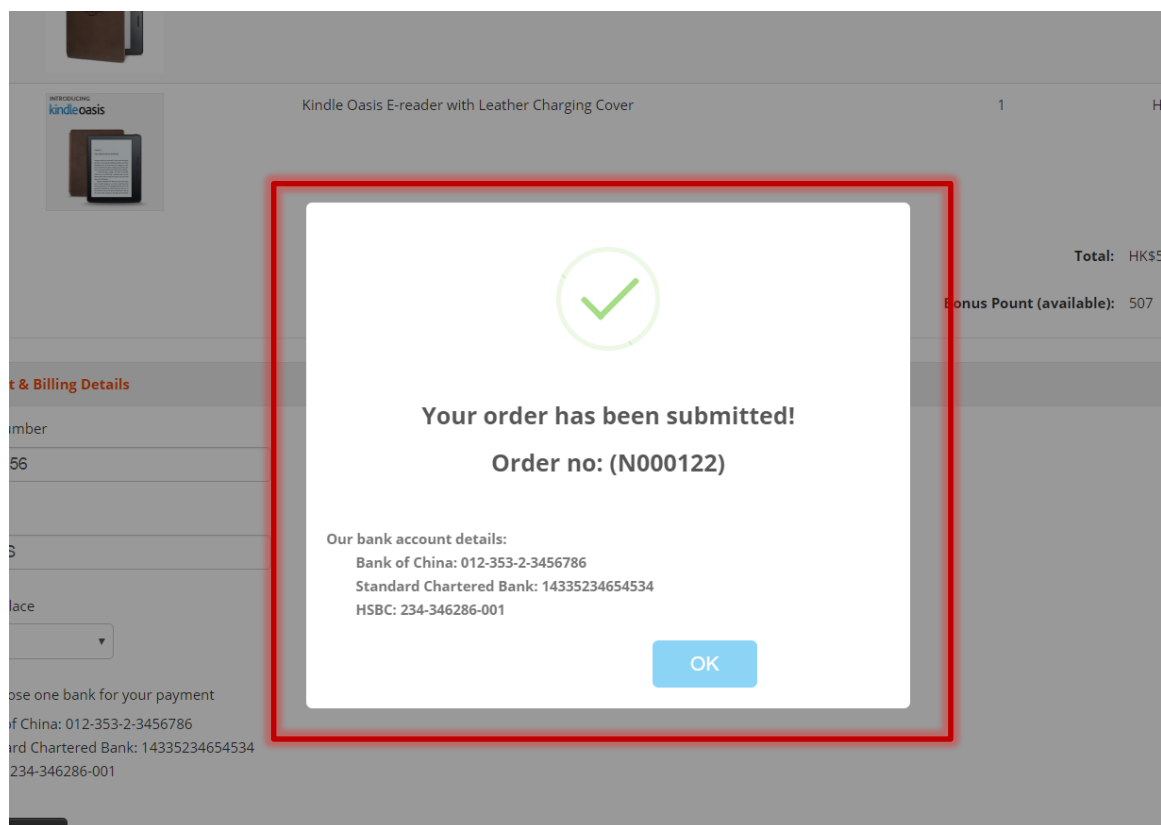
- Successful message with the order details.

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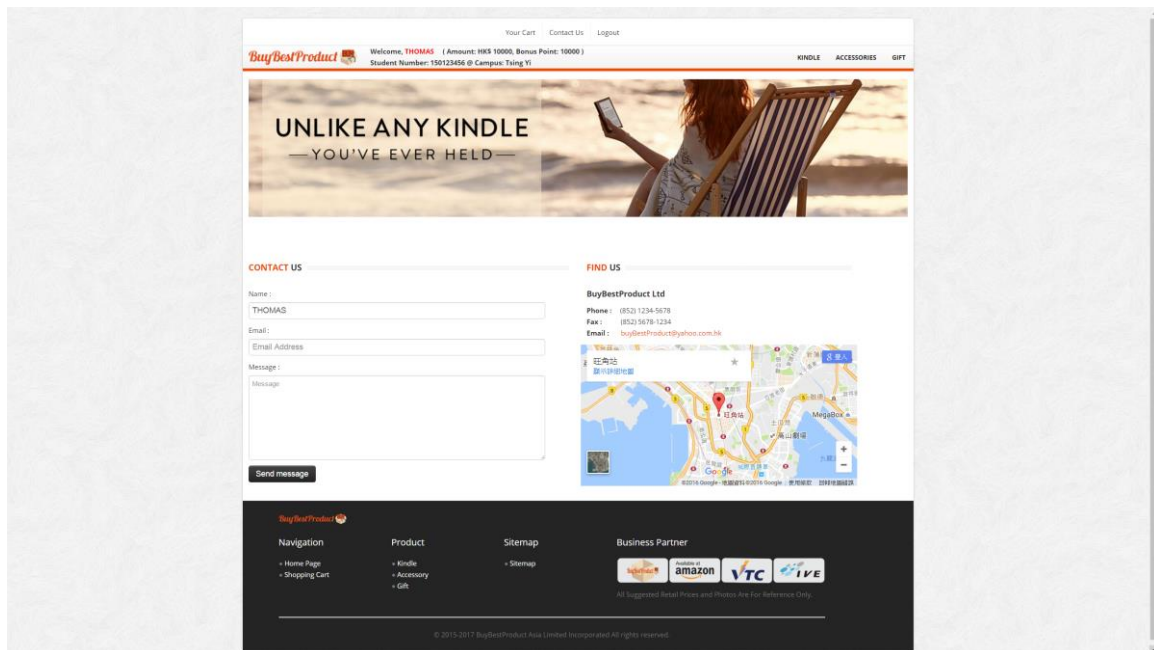
- Contact us detail page.
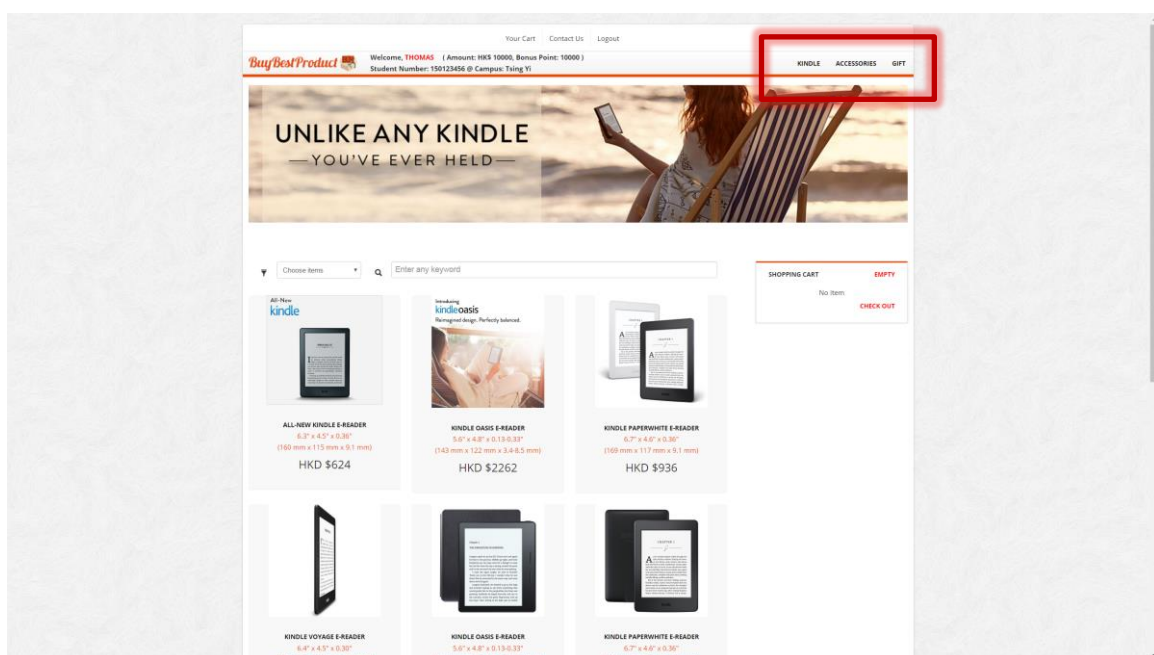
- Product page.

- Function bar.

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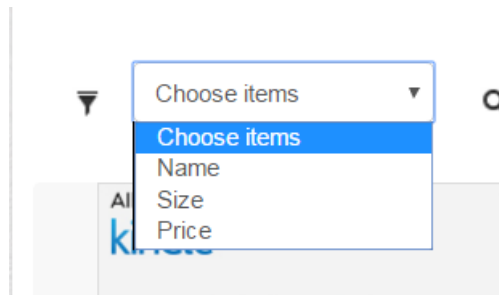
- Function bar – filter.
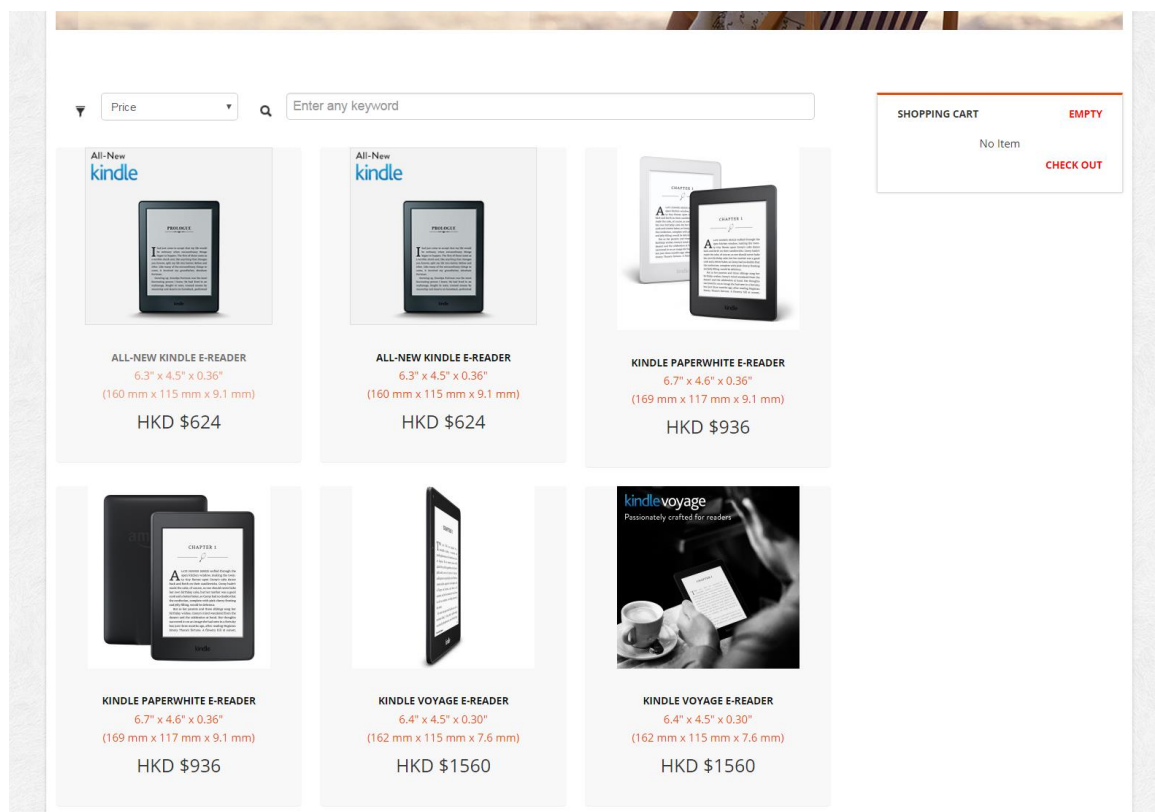
- Filter with price after filtered.

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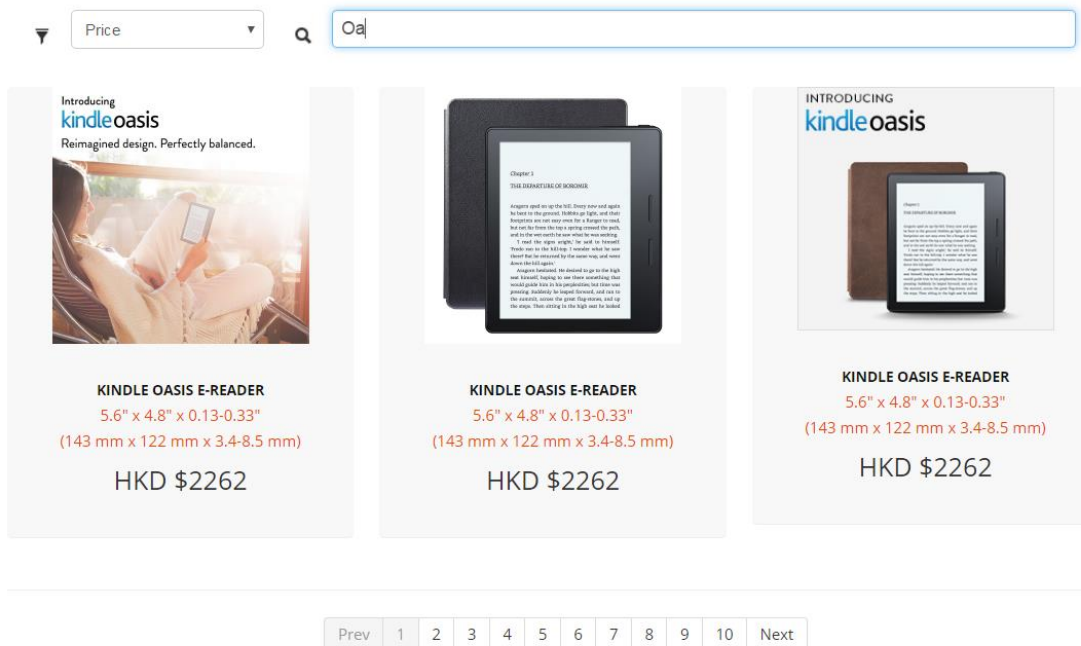
- Search the keyword "Oa" and the related results.

- Product page – page 2.

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- Accessories page.

- Gift page.

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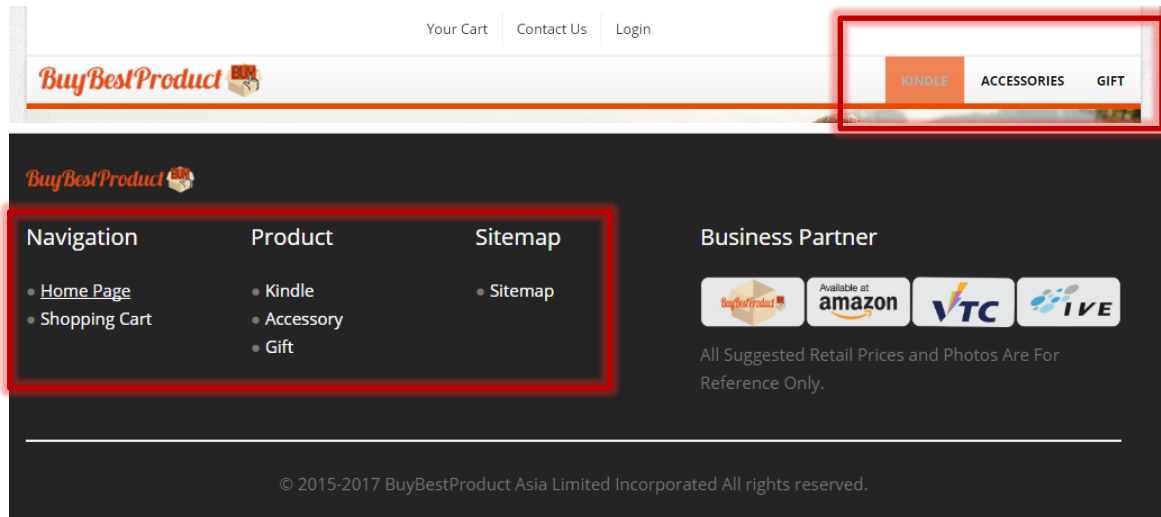- Pay the gift by using bonus point.
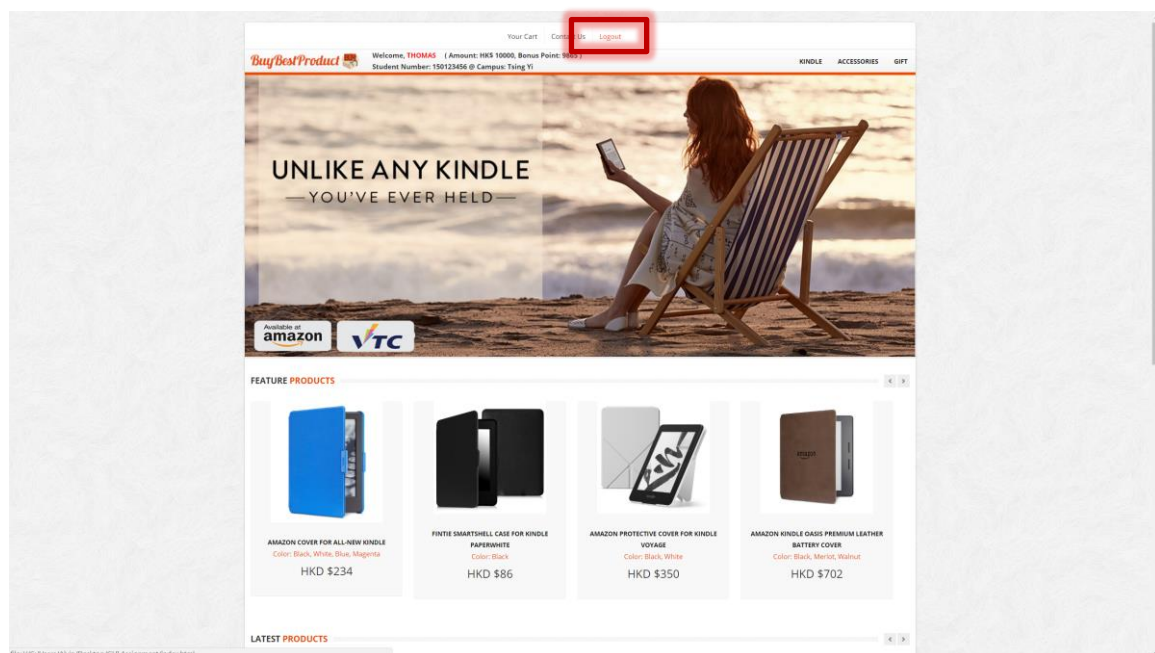
- Logout function.

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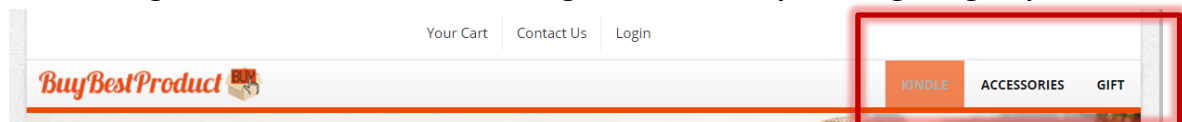Class: IT114105/ HDSE-2A

Content Organization

Organizational schemes: classification systems for organizing content into groups.
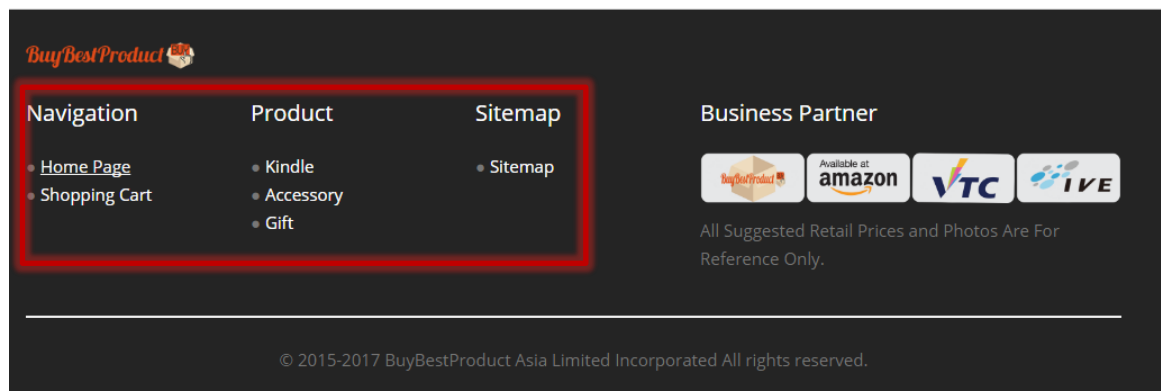

- Using header with navigation bar and footer for product and content classification.

Organizational structures: defining the relationships among the groups

- Using 3 type of product for the classification of products: "Kindle", "Accessories", and "Gift".

Research and interview techniques: discover a way to organize so people can easy to find
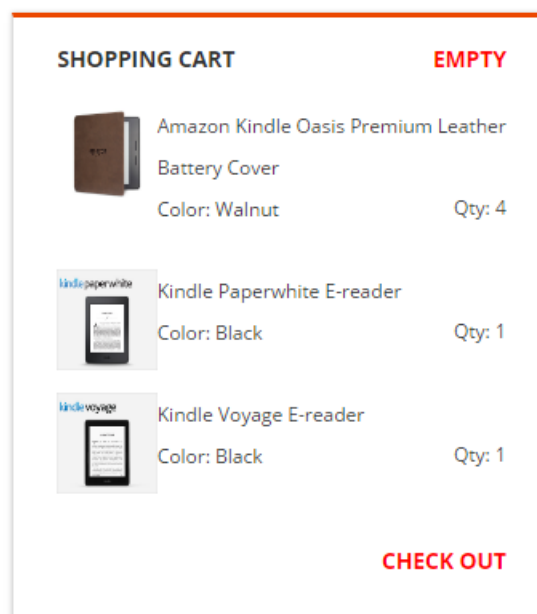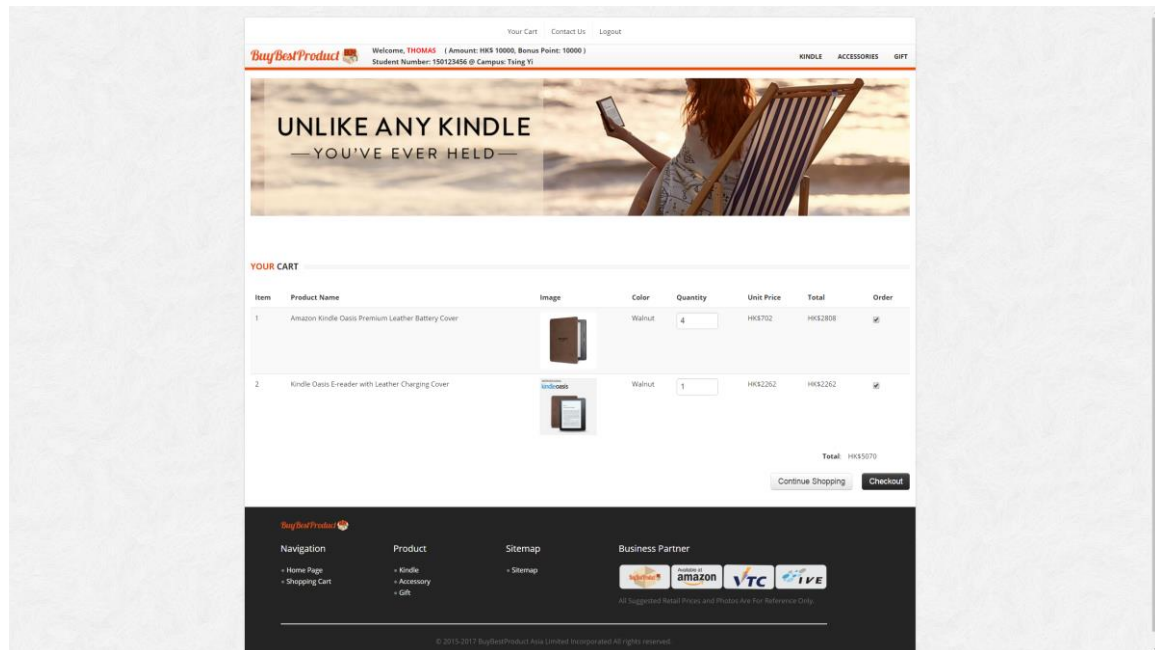

- The footer location.

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Visual Organization

Chronological Organizational Scheme

- Arrange items according to the order in which they were placed in the shopping cart.

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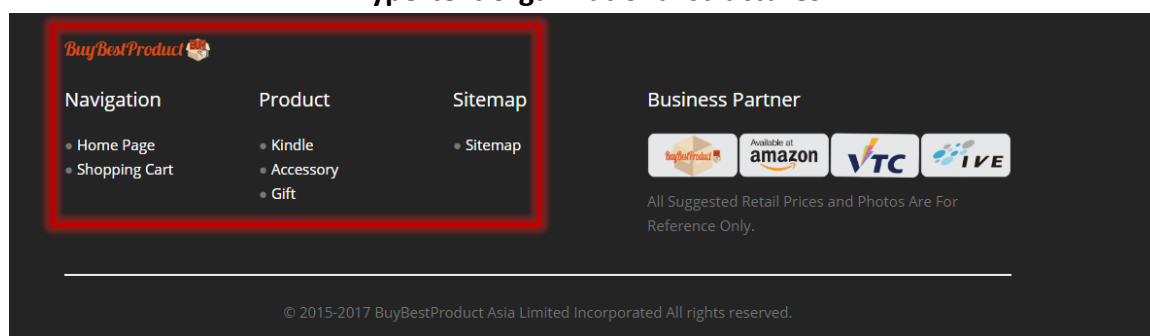Student Number: 150533022, 150031347
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Metaphor-driven organizational scheme
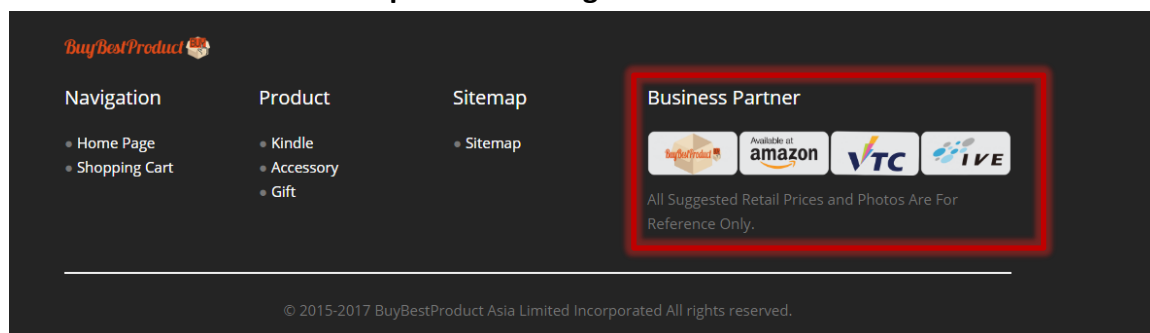
- "Business Partner" in the footer.

Hypertext organizational structures

- Function list items in the footer.

Database organizational structures

- Register form in the login page.

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Navigation
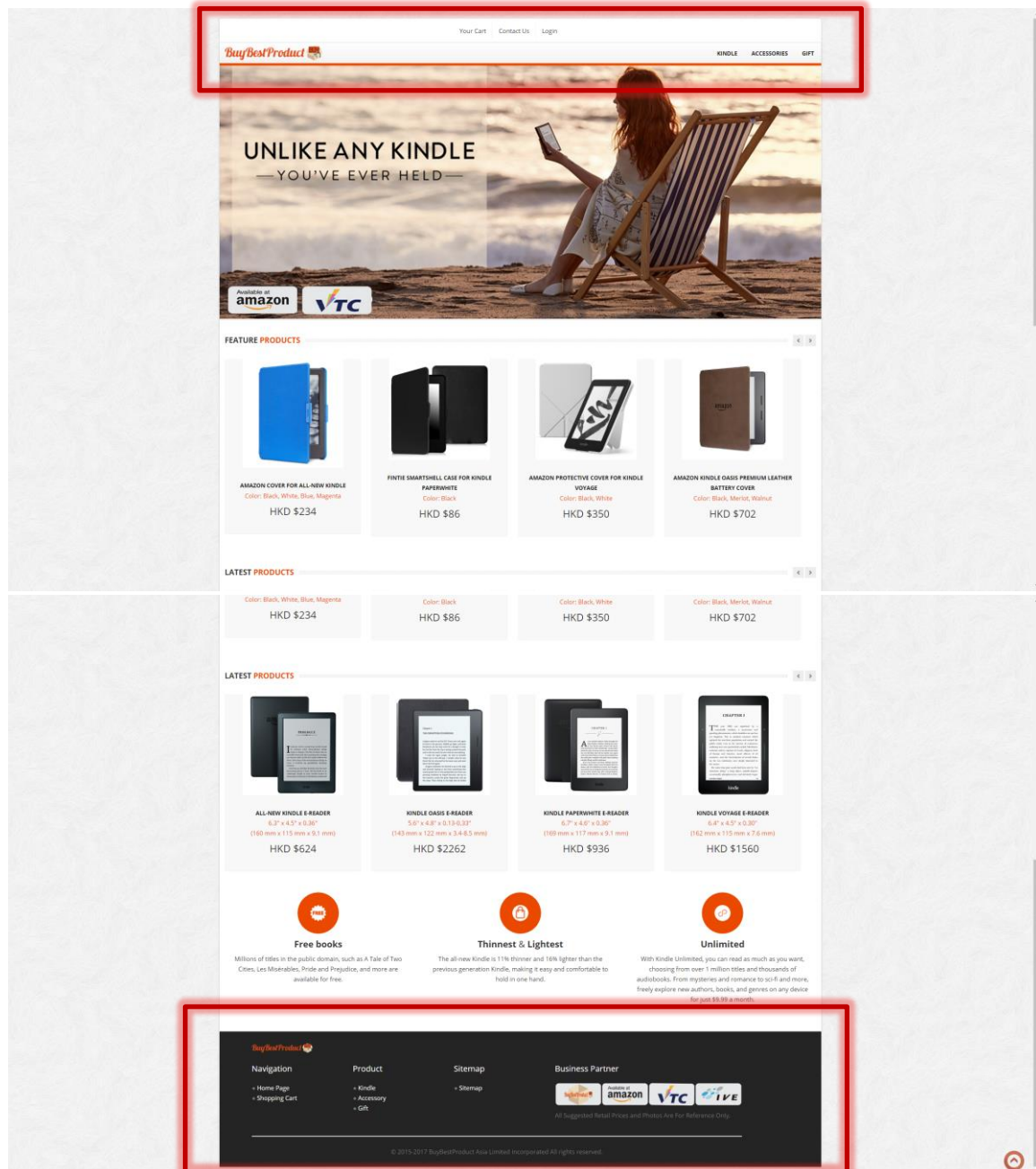
- For the navigation, we put the function category to header and footer that it can show the main function of this website clearly.
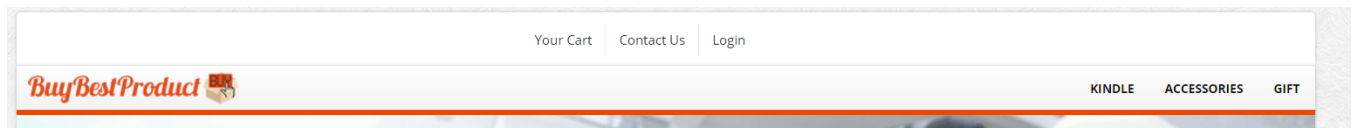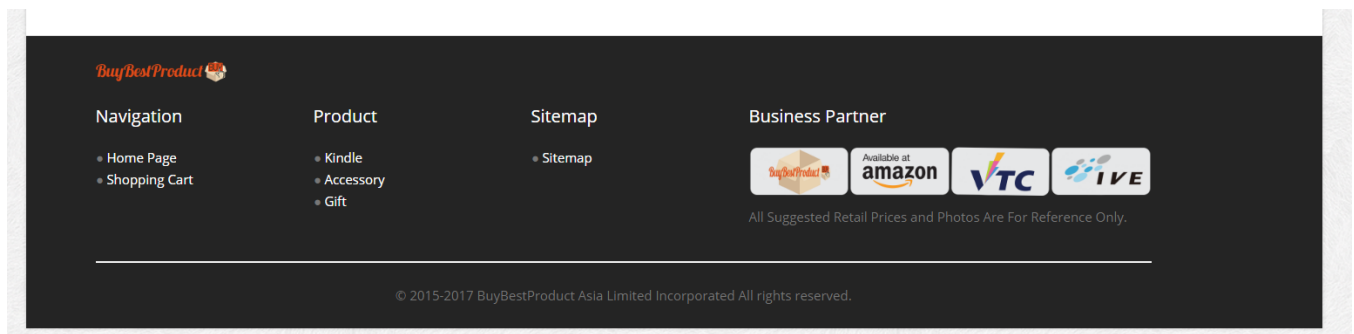
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- The header will using horizontal navigation bar which similar to the current website in the market, that user can easy to use and easy to learn for using this online shopping website.

- The footer layout the subordinate function category in the online shopping website.