



ITP4506 Human Computer Interaction and GUI Programming

E-commerce Website

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1. Background

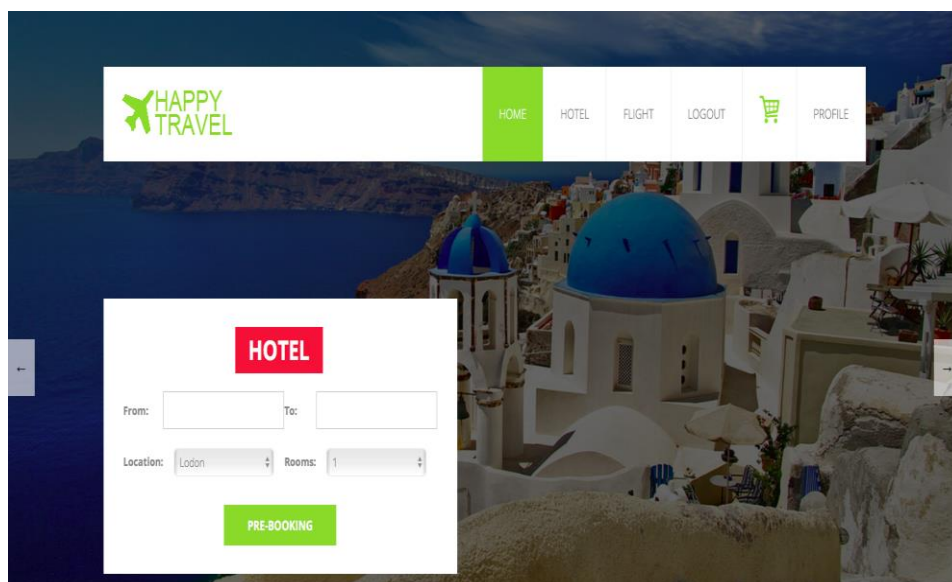
The Happy Travel Ltd is a medium-sized travel agent. This company want to build a website for the tertiary student in Hong Kong. First, the website user interface should be user-friendly. Also, the website should be provide the search function for user searching the items. Moreover, it should be offer the hotel and flight function for user choosing. In addition, the website should be provide a shopping cart, let the user add the item to the cart. Furthermore, it would be having a membership system for user since they need to login to get a discount.

2. User Analysis

2.1. User characteristics

2.1.1. Learning style

The website is target on the student so the user have a high learning skills to use the website. The users' habits of learning are read manual. The student will go to website first, they will see what is the information will show on the website. After they read the website, they can easy to use it. The user enter the website, they will see the photo 1. They enter this website because the want to search or buy the flight ticket or book the hotel. They can click the item on the top menu. It design can let the user easily to read the first page content.



(Photo 1)

2.1.2. Tool preferences


For the student, they want a quick search function and an attractive user interface. It is because student like trendy style and convenient website to easy to use. So the website will provide the search engines, menu and slide show. For the search engines, the website is used the flexible box to include the search item. The user can select the date from the date picker, location, number of room and number of people are also is drop-down menu. When they click the input box, it will pop up the drop down menu or date picker. It is no need to enter the information. The user chooses it only. For the menu, the website is clearly to set the name of the menu. Also, the shopping cart uses a cart logo to present it. Using photo can

easy to show the meaning. For the slideshow, the slideshow both side have a button of changing. That can show to user the slide have another information.

2.1.3. Physical differences

Abilities among different people may be different but this website is target on the tertiary student. So the age is around 18-30. Also, the target group has men and female.

Furthermore, considering of the vision limitations such as color blindness so the website would be set the color of green, white and grey of main color. The font sizes are not too large and too small. The title set to 18px. The content may set 14-16px.

Font sizes (Title)	18px
Font sizes (content)	14-16px
Main color of website	Green (#9ED034), Grey(#EEEEEE), White (#FFFFFF) 

2.1.4. Cultural differences

The target customer is the tertiary student so they have a higher education level. Also, the reading level is also higher. For the website using vocabularies, the user also can understand the meaning and they no need to check the dictionary. The website language could use English.

2.1.5. Knowledge of job

For the travel agent is using specialized vocabularies. For example, customer service, booking, flight, hotel, deals, available, main amenities etc.

2.1.6. Application familiarity

For the novice, they need to a guideline to follow the step-by-step using the website.

About the Expert, they no need a guideline to follow the step-by-step using the website. They can learn

2.1.7. Primary and secondary users

Primary User	Secondary User
Hotel reservation clerk	Customer who called the support line
Flight reservation clerk	Tertiary student
Travel agent	

2.2. Techniques for observing and listening to users

2.2.1. Focus groups

Regarding some students are less willing to express opinions in the public, we can do an online observation. About a group of people are asked about their perceptions, opinions, beliefs, and attitudes towards a product or service, we can search another travel agent website for our reference. It can collect some ideas for the new website for student.

2.3. Environment Analysis

The student also use the website to buy the flight ticket and hotel at home. Therefore, we need to set the color is not too bright or too dark. We should provide a comfortable interface for student. Also, the website has enough areas to show the information since the user's computer screen is large. Moreover, we can offer a scroll to move the web page.

2.4. Recruiting Users

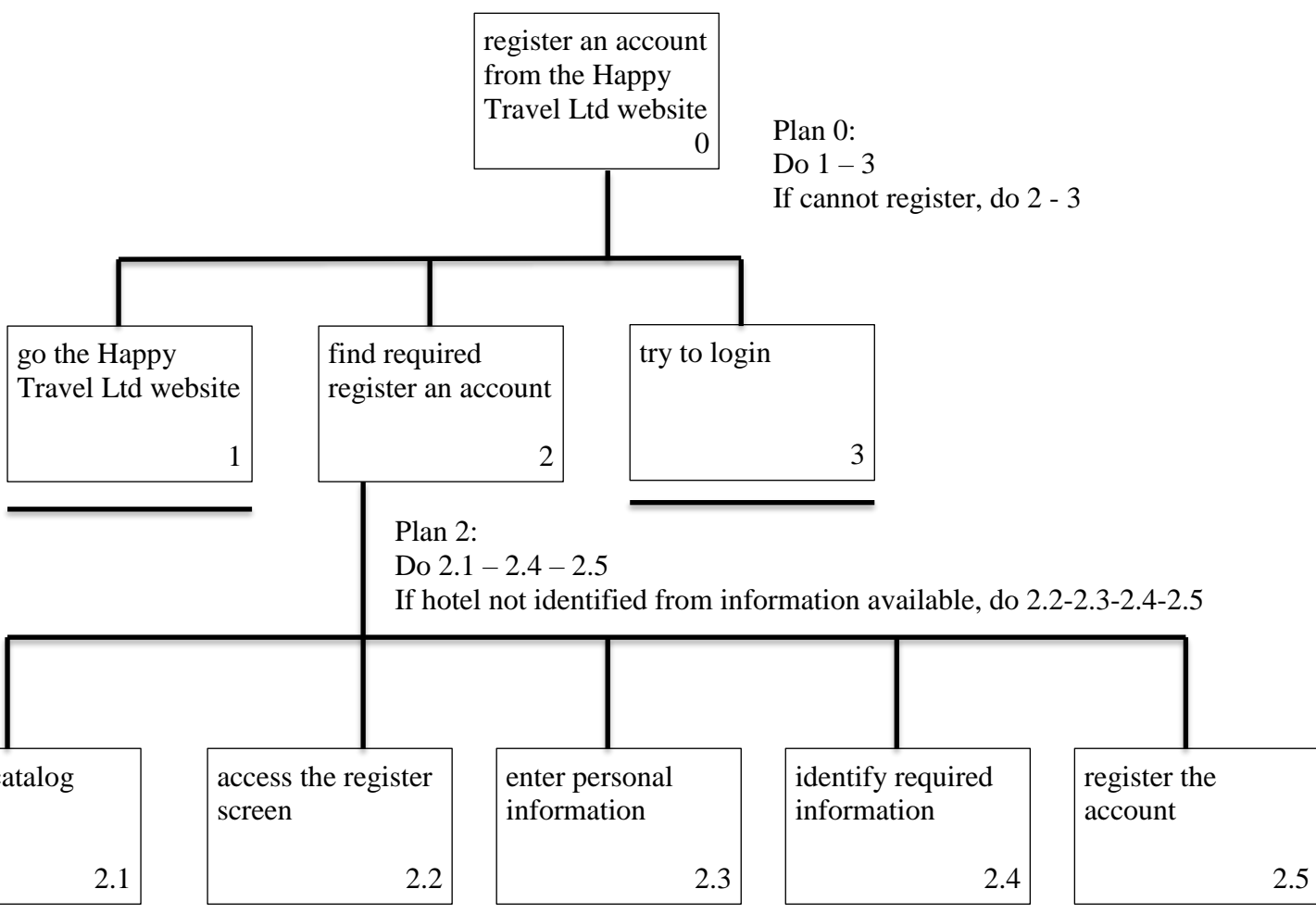
In the website, post notice or ask a professor to announce provide incentives, if they are do an online survey, they can get the prize. It is a good way to get the feedback when we are want to improve the website.

2.5. Task Analysis (HTA)

The website should be go through the 5 main function such as register an account, login an account, book a hotel, book a flight and payment. It can provide a smoothly processing for user browsing.

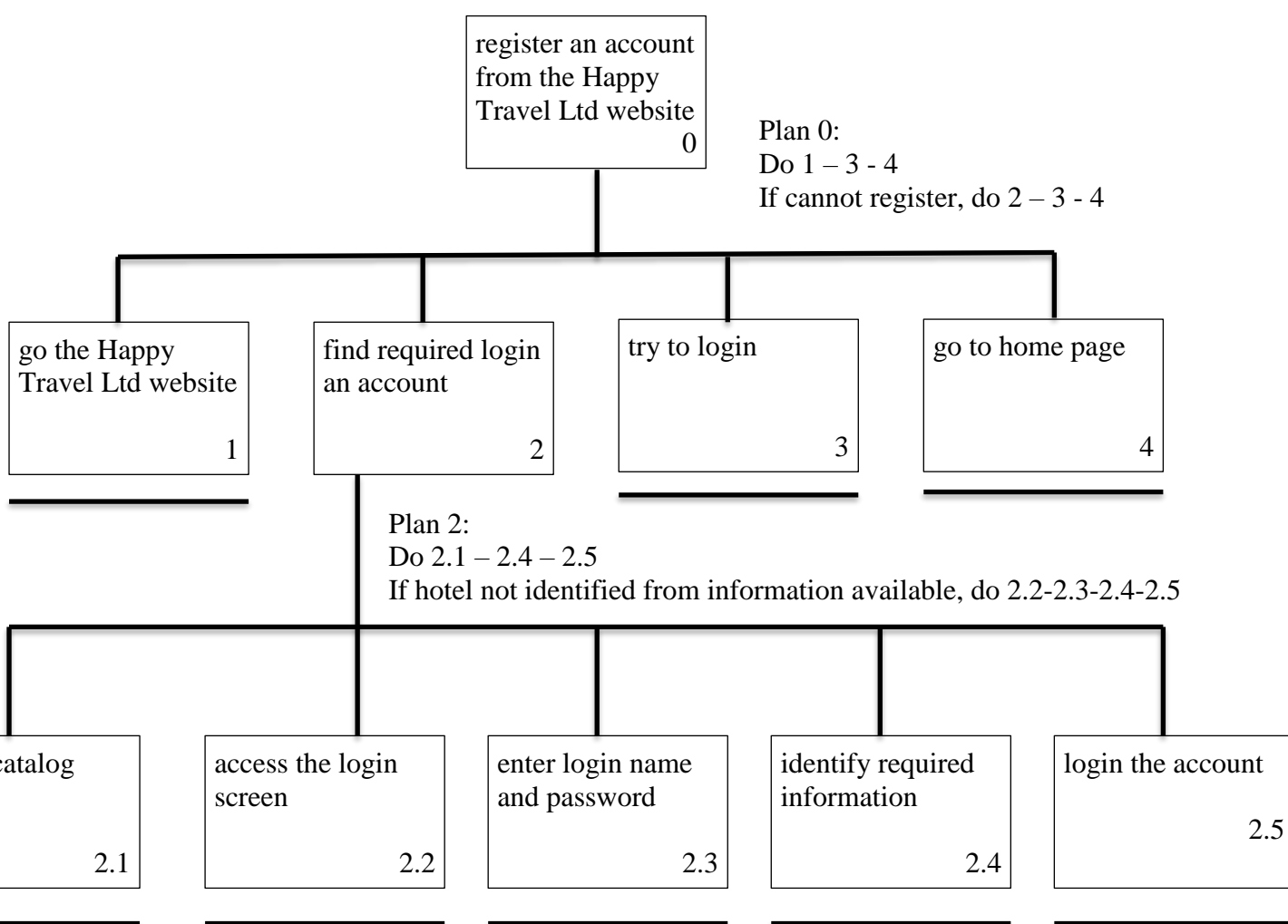
2.5.1. Hierarchical Task Analysis – Register an account

0. In order to register an account from the happy travel Ltd website
 1. Go to the website
 2. Find the required register an account
 - 2.1 access website catalogue
 - 2.2 access the register screen
 - 2.3 enter personal information
 - 2.4 identify required information
 - 2.5 register the account
 3. Try to login



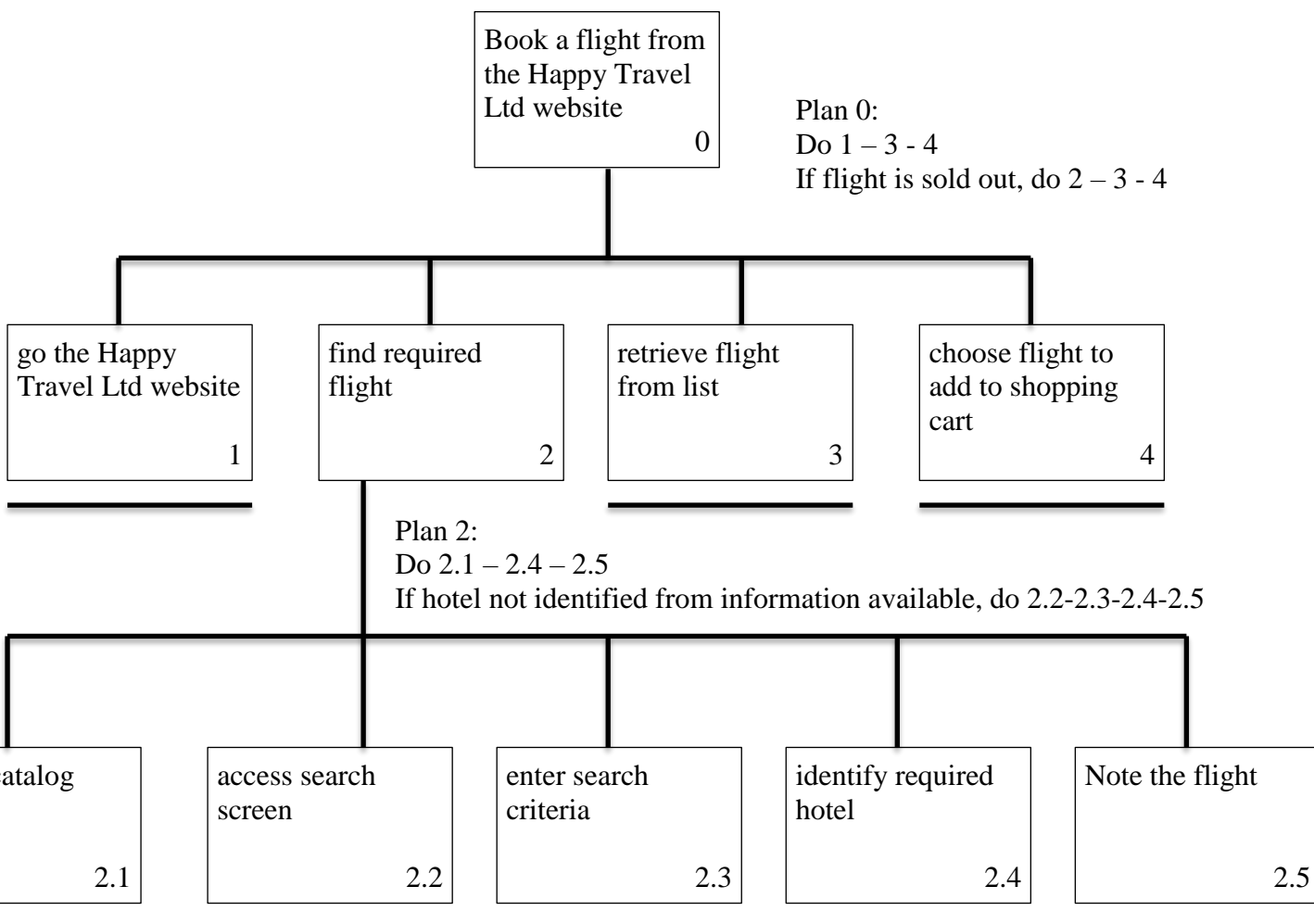
2.5.2. Hierarchical Task Analysis – Login an account

0. In order to login an account from the happy travel Ltd website
 1. Go to the website
 2. Find the required login an account
 - 2.1 access website catalogue
 - 2.2 access the login screen
 - 2.3 enter login name and password
 - 2.4 identify required information
 - 2.5 login the account
 3. Try to login
 4. Go to home page



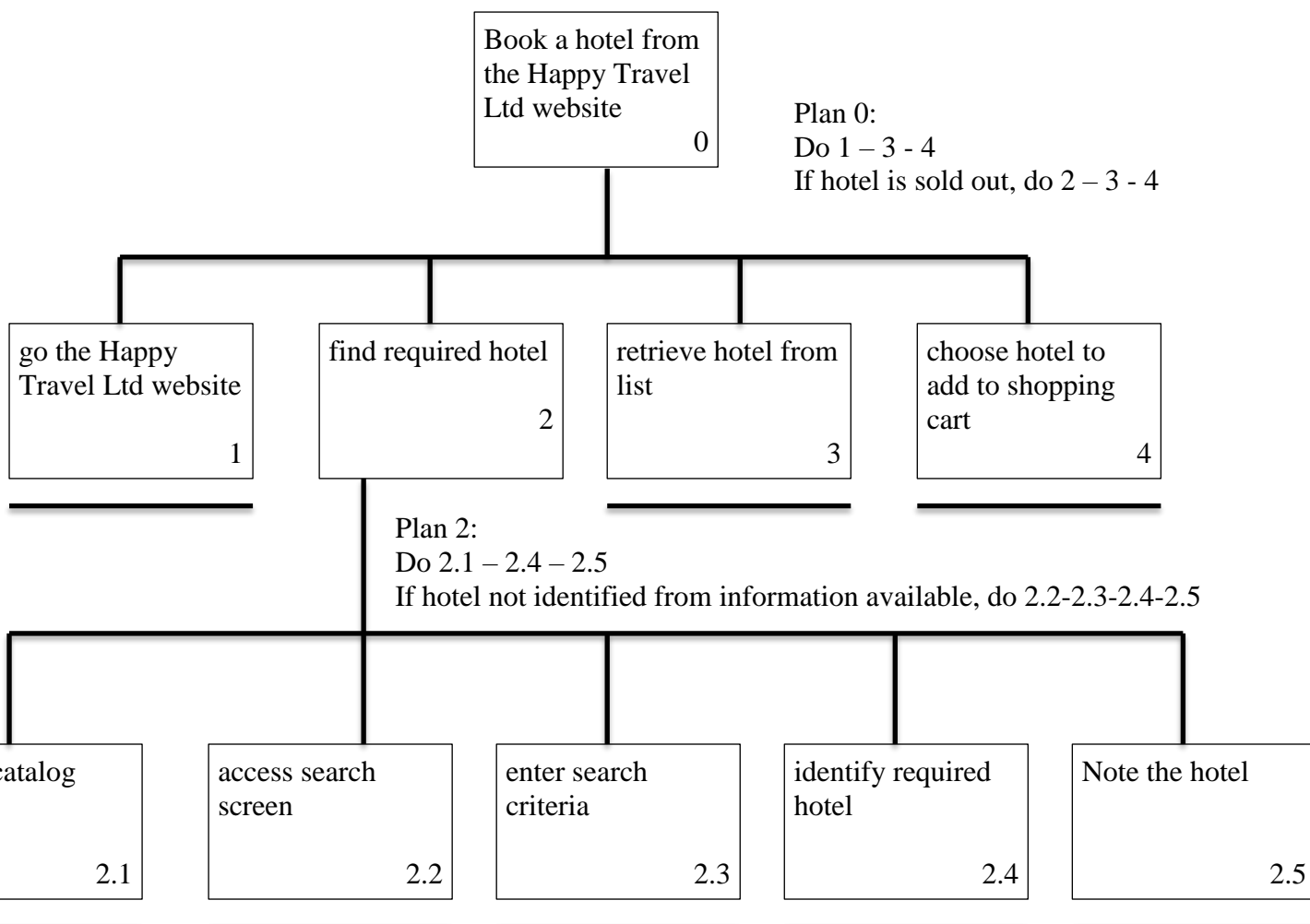
2.5.3. Hierarchical Task Analysis – Book a Flight

0. In order to buy a flight ticket from the happy travel Ltd website
 1. Go to the website
 2. Find the required flight ticket
 - 2.1 access website catalogue
 - 2.2 access the search screen
 - 2.3 enter search criteria
 - 2.4 identify required flight ticket
 - 2.5 note the flight
 3. Add to shopping cart
 4. Go to shopping cart to check out
 5. Fill in all the information to pay



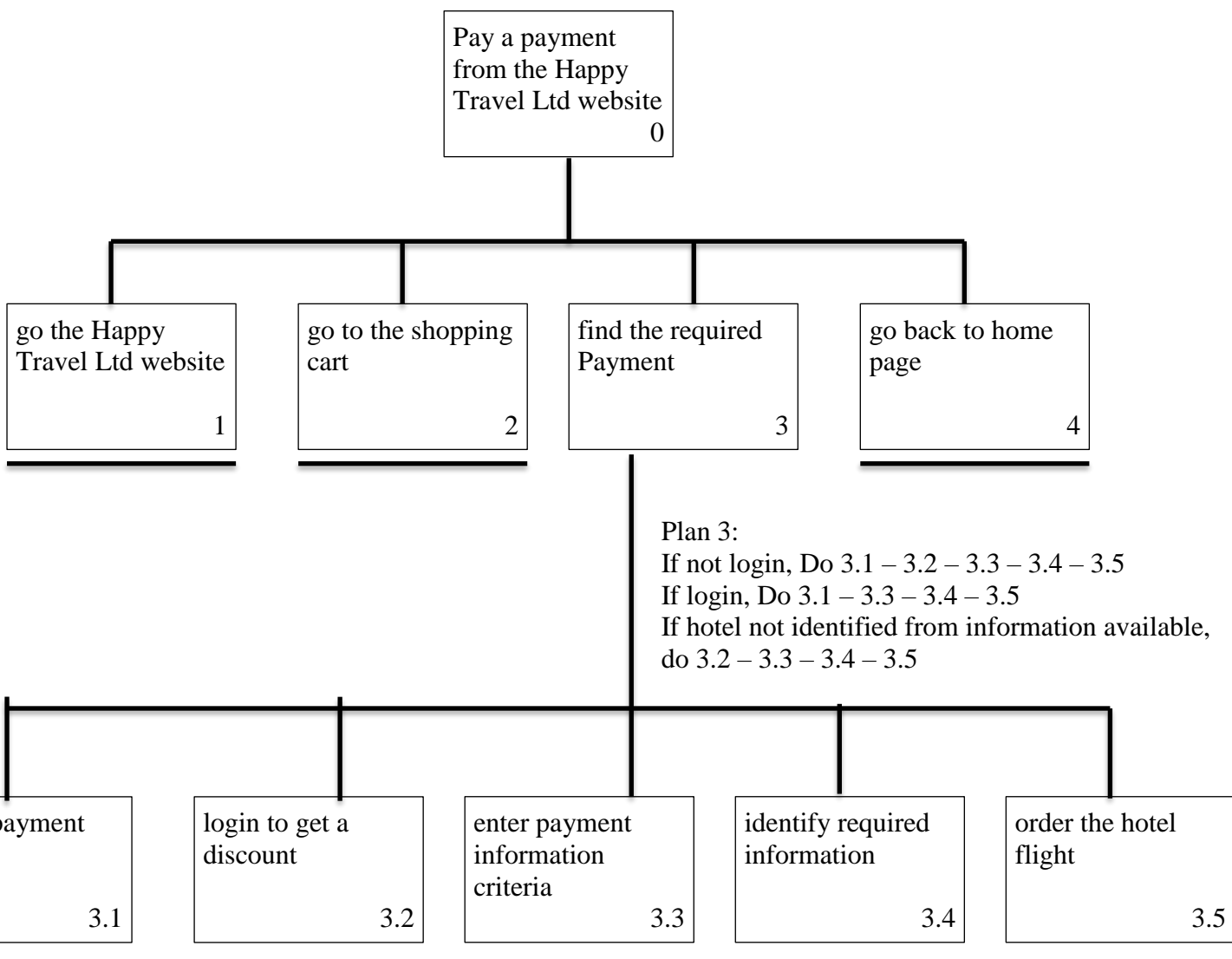
2.5.4. Hierarchical Task Analysis – Book a Hotel

0. In order to book a hotel from the happy travel Ltd website
 1. Go to the website
 2. Find the required hotel
 - 2.1 access website catalogue
 - 2.2 access the search screen
 - 2.3 enter search criteria
 - 2.4 identify required hotel
 - 2.5 note the hotel
 3. Add to shopping cart
 4. Go to shopping cart to check out
 5. Fill in all the information to pay

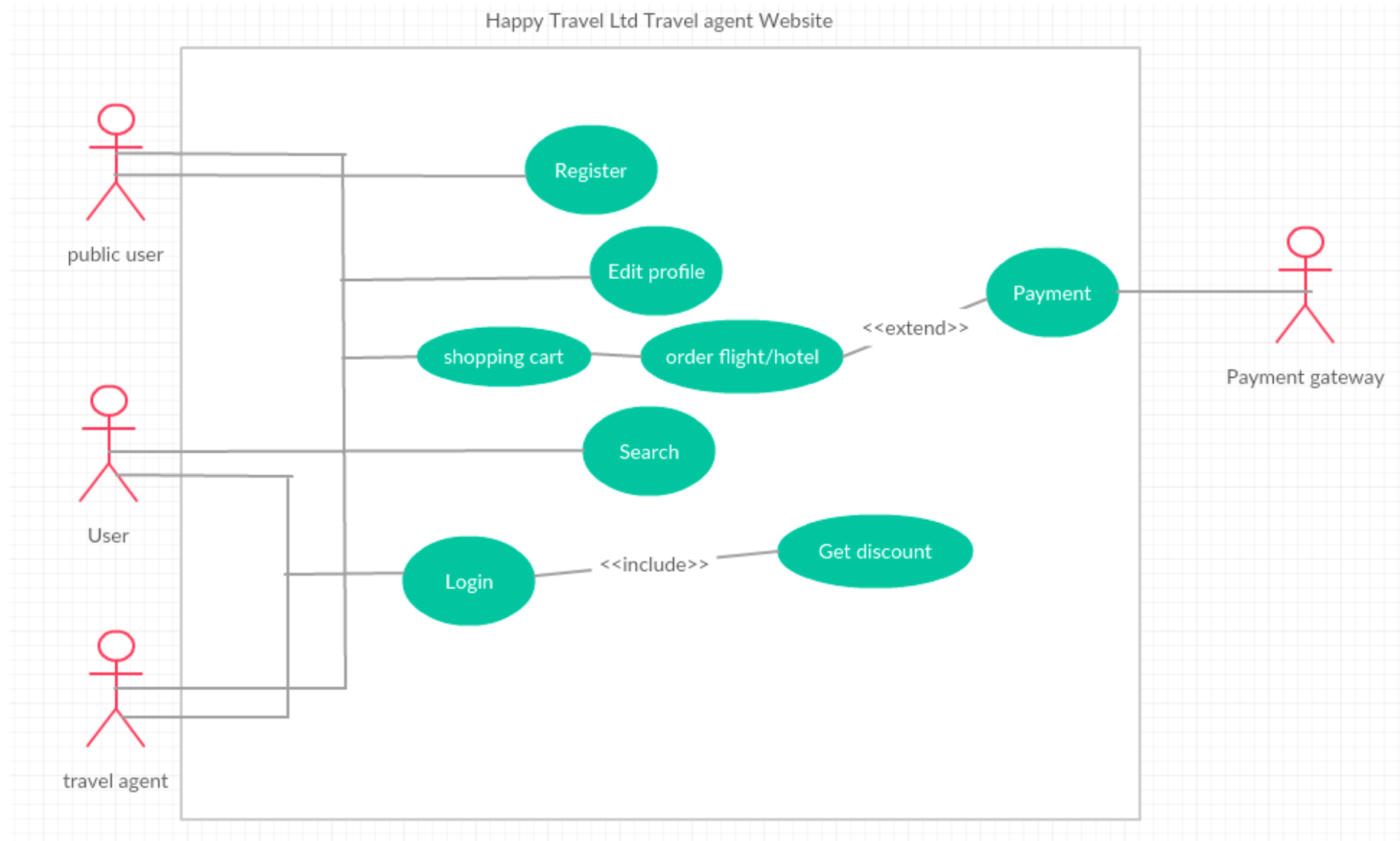


2.5.5. Hierarchical Task Analysis – Payment

0. In order to pay the order flight/hotel from the happy travel Ltd website
 1. Go to the website
 2. Go to the shopping cart
 3. Find the required Payment
 - 3.1 access the payment
 - 3.2 login to get a discount
 - 3.3 enter payment information criteria
 - 3.4 identify required information
 - 3.5 order the hotel flight
 4. Successful Payment
 5. Go back to home page



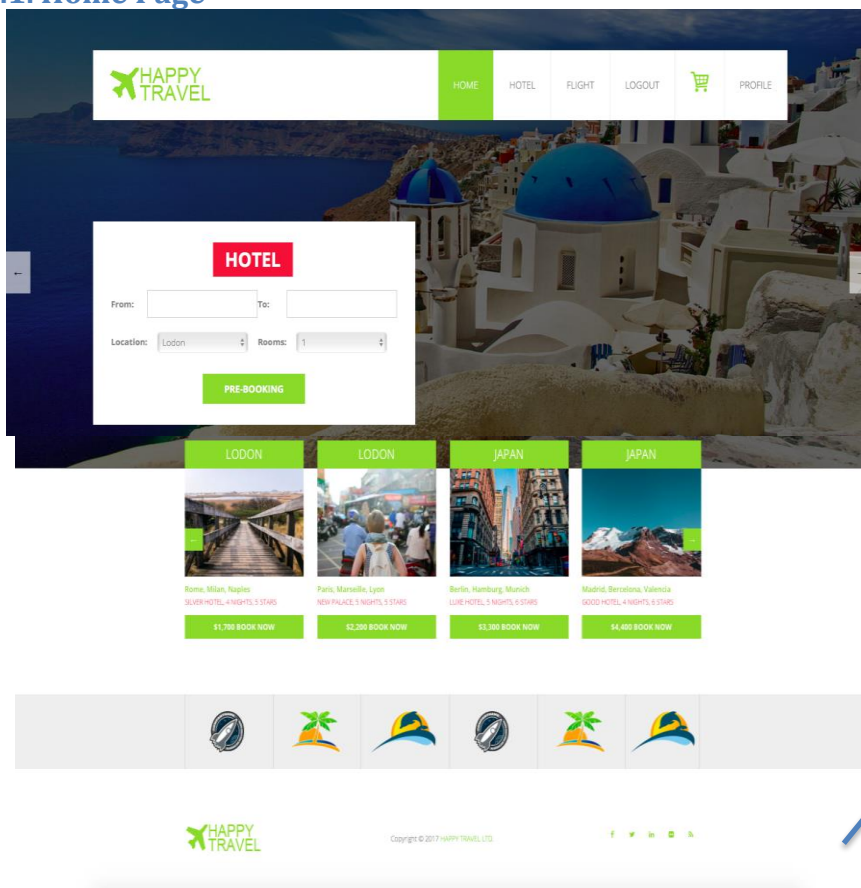
2.5.2. Use case



3. Web Concept

3.1. User Interface design

3.1.1. Home Page



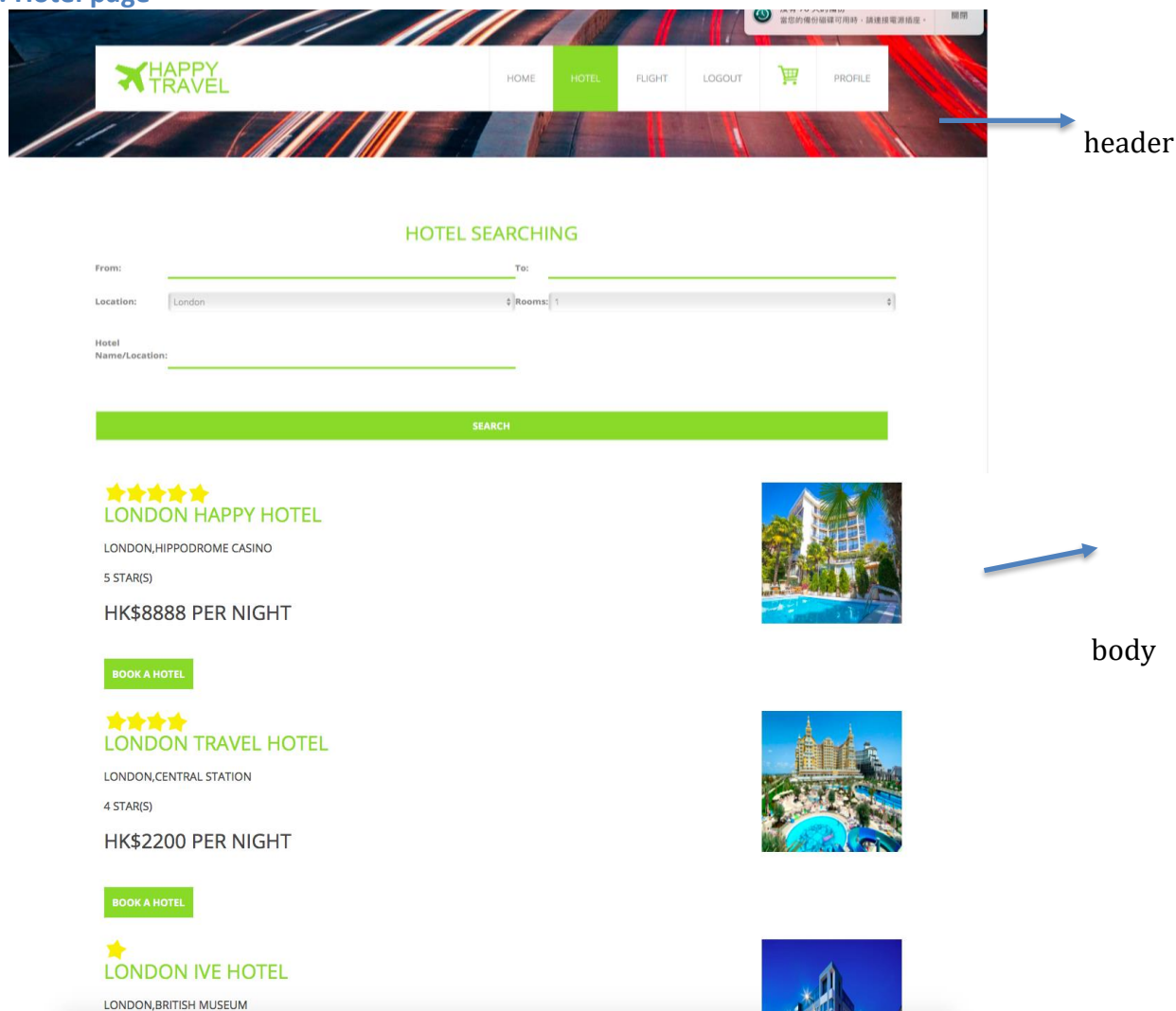
header

body

footer

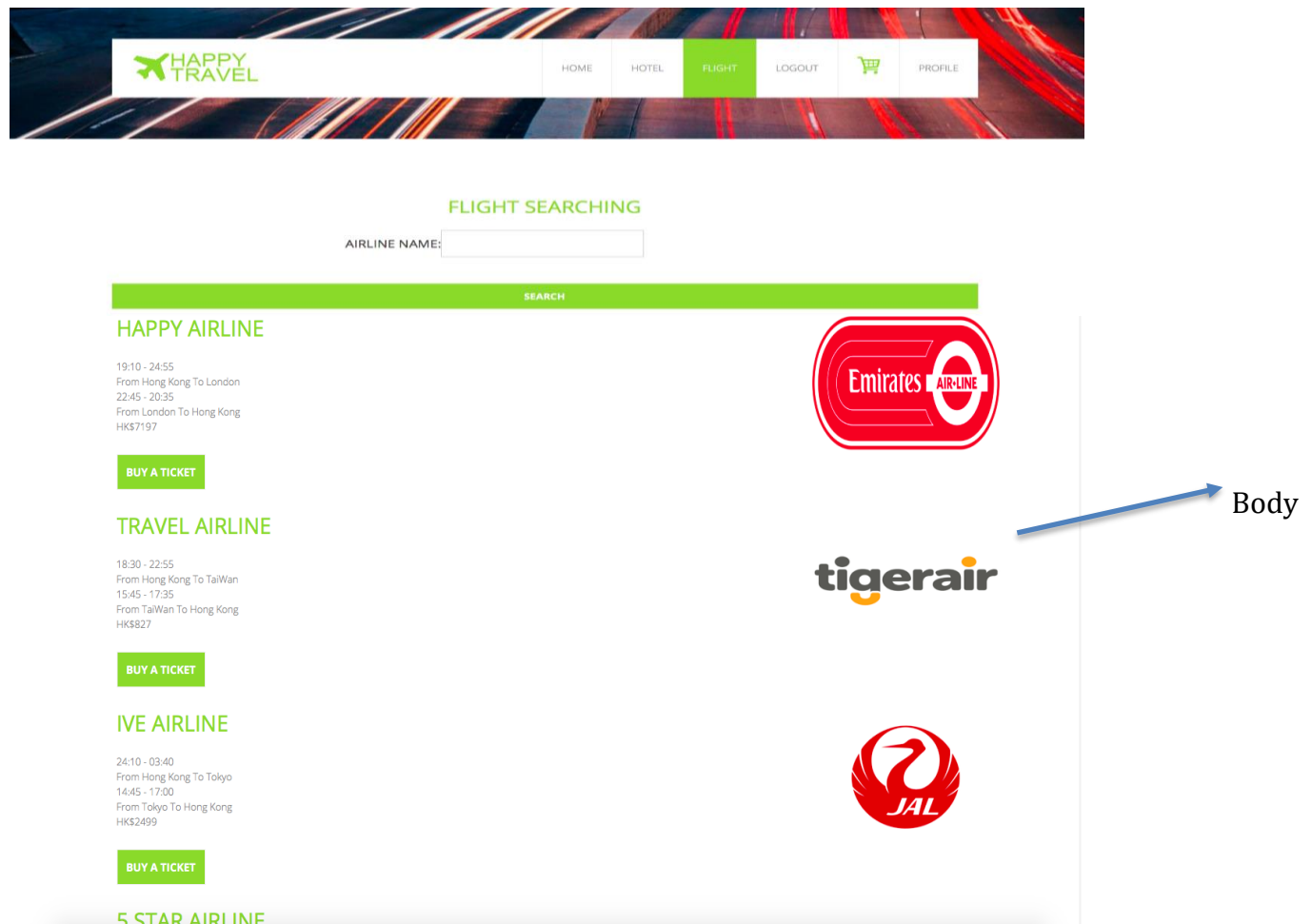
Design Principles	Description
Mental Model	Arrow logo: move left or right to next item
Affordance	<ol style="list-style-type: none"> 1. Slide search box provide search function, 2. Arrow can move the slide (left or right) 3. Menu of each category can go to the relative page
Content Organization - Chronological	<p>Header: menu for grouping the name of relative page and search function (hotel or flight)</p> <p>Body: grouping the package of flight and hotel suggestion</p> <p>Footer: grouping the logo</p>
Visual Organization - Consistent	After change to next page, the next content will show on body only.
Navigation	<p>Search engines: Slide box for searching hotel/flight</p> <p>Global - Hyperlinks: menu bar</p>

3.1.2. Hotel page



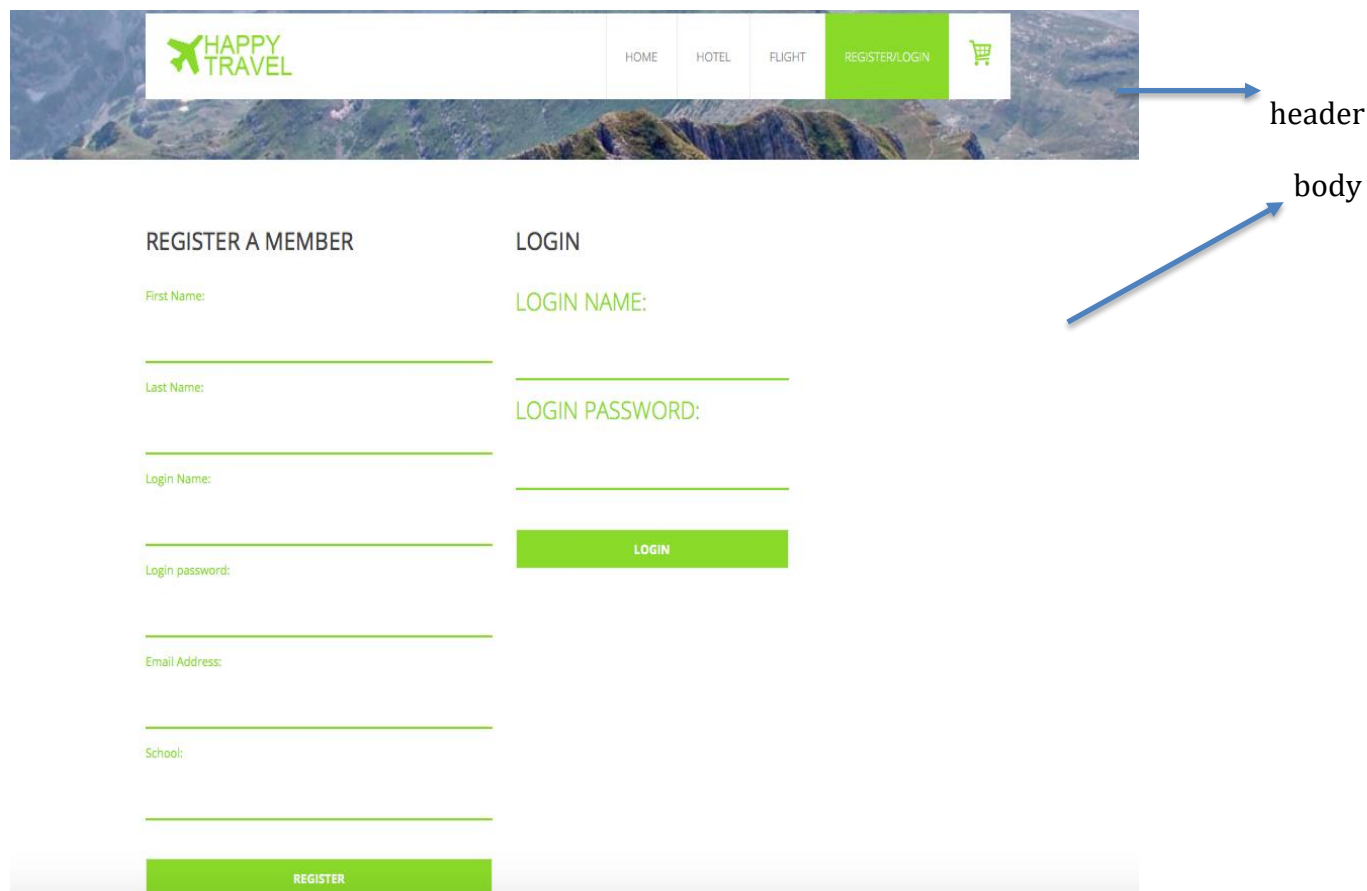
Design Principles	Description
Mental Model	Scroll: move up and down
Affordance	1.Input box for searching hotel function, 2.drop down list to change the location for searching 3.button add the item to shopping cart
Content Organization - Chronological	Header: menu for grouping the name of relative page Body: Grouping the hotel of the list view
Visual Organization - Consistency	1. list view of grouping the hotel 2.All searching input type grouping together
Navigation	Search engines: form for searching hotel Global - Hyperlinks: menu bar

3.1.3. Flight page



Design Principles	Description
Mental Model	Scroll: move up and down
Affordance	1.Input box for searching flight ticket function 2.button add the item to shopping cart
Content Organization - Chronological	Header: menu for grouping the name of relative page Body: Grouping the flight ticket of the list view
Visual Organization - Consistency	1. List view of grouping the flight ticket 2.All searching input type grouping together
Navigation	Search engines: form for searching hotel Global - Hyperlinks: menu bar

3.1.4. Register/Login Page



The screenshot shows the 'HAPPY TRAVEL' website header with navigation links: HOME, HOTEL, FLIGHT, REGISTER/LOGIN, and a shopping cart icon. The main content area is divided into two sections: 'REGISTER A MEMBER' and 'LOGIN'.

REGISTER A MEMBER:

- First Name:
- Last Name:
- Login Name:
- Login password:
- Email Address:
- School:
- REGISTER** button

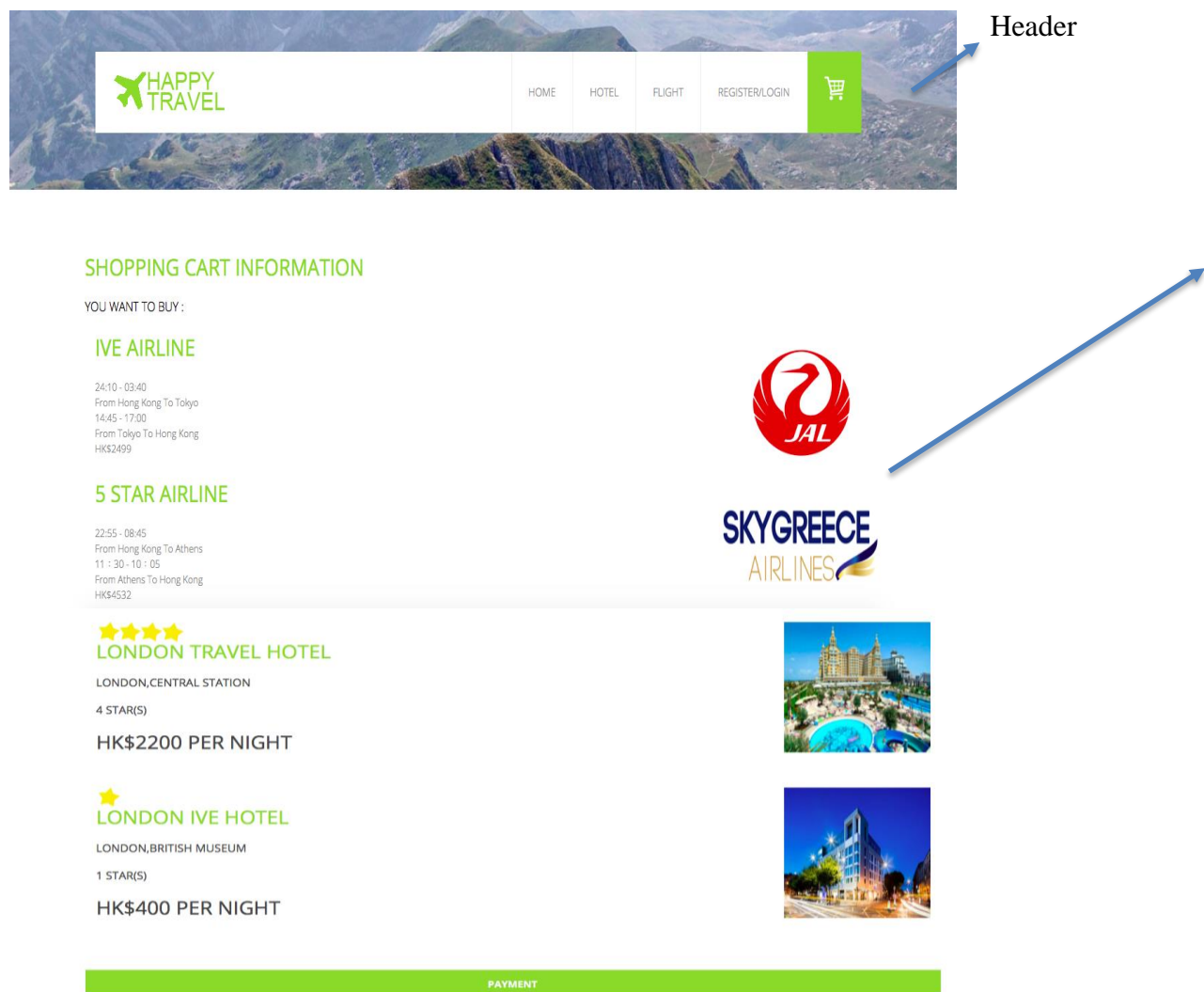
LOGIN:

- LOGIN NAME:
- LOGIN PASSWORD:
- LOGIN** button

Annotations: A blue arrow points from the 'REGISTER/LOGIN' header link to the label 'header'. Another blue arrow points from the main content area to the label 'body'.

Design Principles	Description
Mental Model	scroll: move up and down
Affordance	1.Register form of input box can be entering the personal information. 2. Register form of button can be submitting the personal information. 3. Login form of input box can be entering the login name and password. 4. Login form of button can be login account
Content Organization - Chronological	Header: menu for grouping the name of relative page Body: Grouping Register form and login form separate
Visual Organization- Consistency	1.From of grouping the register / Login
Navigation	Global - Hyperlinks: menu bar

3.1.5. Shopping cart page



Design Principles	Description
Mental Model	Scroll: move up and down
Affordance	“Payment” button for link to the payment page
Content Organization- Chronological	Header: menu for grouping the name of relative page Body: list view of shopping cart
Visual Organization- Consistency	1. Click the “Payment” button will go to payment page
Navigation	Global - Hyperlinks: menu bar

3.1.6. Payment Page

Header

Body

PAY NOW

Login to get a discount!

LOGIN

Add your personal information

Personal Information:
First Name:
Last Name:
Email Address:
passport Number:
Phone Number:

Payment Information:
Holder's Name:
Valid Date:
Card Number:
CW:

VISA MasterCard American Express UnionPay

PAY NOW

Design Principles	Description
Mental Model	Scroll: move up and down
Affordance	1. "Login" button will link to login page 2. "Pay now" button will check all information and go to payment gateway to check. 3. "Add your personal information" button will fill in the personal information into input box
Content Organization- Chronological	Header: menu for grouping the name of relative page Body: Grouping all relative payment in form
Visual Organization- Consistency	1. All related payment information is grouping in form.
Navigation	Global - Hyperlinks: menu bar

3.1.7. Profile Page



Header

MY PROFILE

PERSONAL INFORMATION

FIRST NAME: Kit Yu
LOGIN PASSWORD: A1234567
LAST NAME: Lam
EMAIL ADDRESS: kkatielam@vtc.com
LOGIN NAME: katielam
SCHOOL: HKIVE-ST



Body

Design Principles	Description
Mental Model	Scroll: move up and down
Affordance	Input box
Content Organization- Chronological	Header: menu for grouping the name of relative page Body: All personal information
Visual Organization- Consistency	1. You can see your personal information here.
Navigation	Global - Hyperlinks: menu bar

4.1. Function

4.1.1. Register / Login

1. Fill in all input box.

REGISTER A MEMBER

First Name:

Last Name:

Login Name:

Login password:

Email Address:

School:

2. Click “Register” button

School:

REGISTER

3. Pop-up the Modal box

Welcome!!

Register Success!!

Close

4. Input the login name and login password.

LOGIN

LOGIN NAME:

katielam

LOGIN PASSWORD:

LOGIN

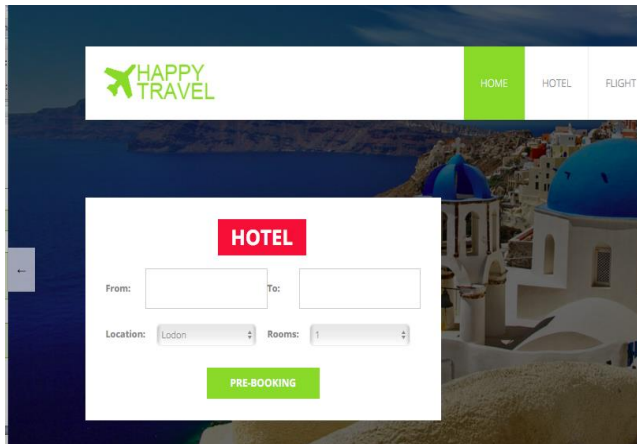
5. Click “Login” button

Welcome katielam

關閉

4.1.2. Search and view product

1. In home page, you can see hotel/flight box



2. Enter the criteria in the box

HOTEL

From: To:

Location: Rooms:

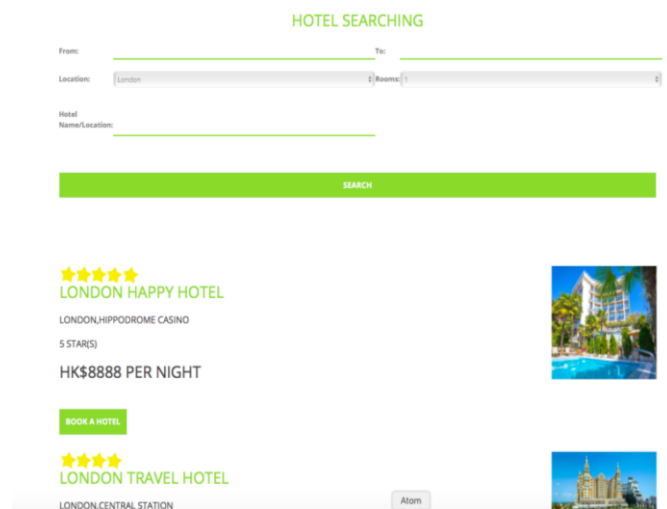
PRE-BOOKING

3. Click the “PRE_BOOKING” button

PRE-BOOKING

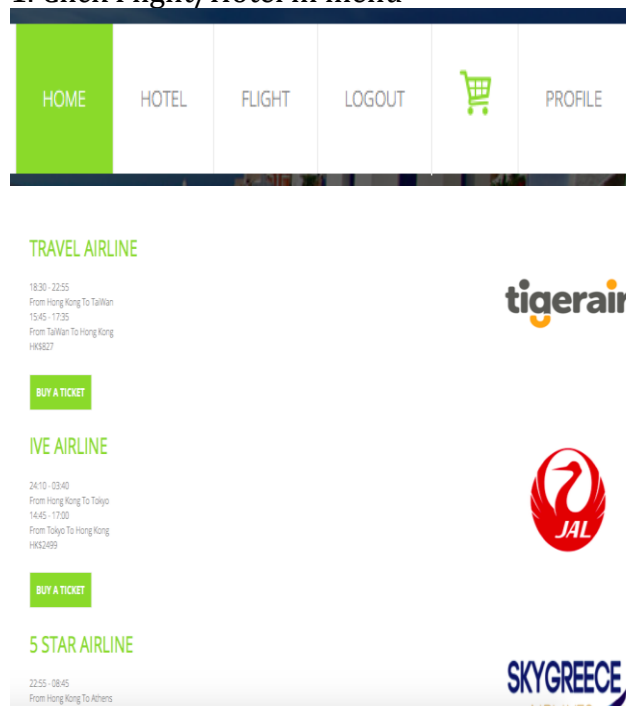
4. Go to the flight/hotel page

5. View the list under the search function



4.1.3. Add product to shopping cart

1. Click Flight/Hotel in menu



2. Click “Book a hotel” / “Book a flight”

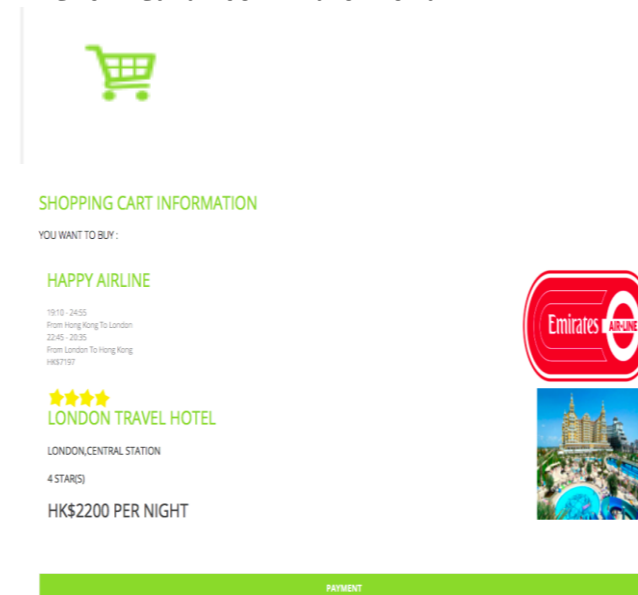


3. Cancel the chosen one, Click “Cancel a hotel” / “Cancel a ticket”

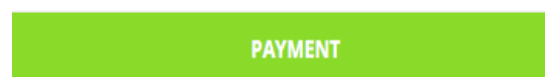


4.1.4. Check out and payment

1. Click “Cart” icon in the menu



2. Click “Payment” button



3. Fill in all the information

PAY NOW

You have to pay : HK\$-1800
You have logged! You will get a 10% discount!

Add your personal information

Personal information: First Name: aa Last Name: aa Email Address: aaaaaaaaaa passport Number: Phone Number: 	Payment information: Holder's Name: Valid Date: Card Number: CVV:
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☐ VISA
 ☐ MasterCard
 ☐ AMERICAN EXPRESS
 ☐ UnionPay

PAY NOW

4. Click “Pay now” to finish your order