

COMM 5961**FlatIsland Peng Chau**

<https://kayleunghc.pythonanywhere.com/>

**Problem Background**

There is an increasing popularity in Lantau Islands in the recent years. Cheung Chau used to be a popular island that people would like to visit during weekends. In the recent years, Peng Chau has gradually developed. Not only are there more and more land developers, eg Sino, complete their development in Peng Chau, bring in more new residents, there are more tourists coming in.

Peng Chau has changed from an outlying island only for residential in 10 years ago to an island with new elements target at tourists. As a local resident in Peng Chau, I have seen rapid development on the island. Many people have taken the advantages of the growing popularity of Peng Chau and opened new shops on the island.

Below shows the search results of “Peng Chau” on Google and YouTube in this month. The search results show the popularity of Peng Chau as more and more people are introducing this place to others.

The screenshot shows a Google search for '坪洲' (Peng Chau). The search bar at the top contains '坪洲'. Below the search bar, there are tabs for 'All', 'Maps', 'Images', 'News', 'Videos', and 'More'. The search results show 'About 1,670,000 results (0.50 seconds)'. The first result is from 'weekendhk.com' with the title '坪洲一日食買玩行程！島上名物蝦多士 + 牛皮廠打卡位 + 逾40年 ...'. The second result is from 'hk01.com' with the title '坪洲一日遊 | 登最高點手指山再環島探石嚙黑糖珍珠港式絲襪奶茶'. The third result is also from 'hk01.com' with the title '坪洲好去處 | 慢活簡約Cafe人情味濃素食社企露天座位打卡位多'.



The growing popularity can also be reflected from the number of people taking the ferry. From the September 2021 Monthly Report launched by the Transportation Department, other licensed ferries which Peng Chau is included, there is a growing trend of people taking the ferries in a month with a record of 34.9 thousands in September and a peak of 42.1 thousands in April 2021.

表 2.1S (續)
Table 2.1S (cont'd)

2021/09
千次
thousands

| 年 / 月 Year / Month | 公共小巴 Public Light Buses | | | 渡輪 ⁽¹⁾ Ferries ⁽¹⁾ | | | | 的士 ⁽⁵⁾ Taxis ⁽⁵⁾ | 居民巴士 ⁽⁶⁾ Residents' Services ⁽⁶⁾ | 港鐵巴士 (新界西北) MTR Buses (Northwest New Territories) | 總計 Total | 當年/月日數 No. of Days in the Year / Month |
|-----------------------|-------------------------|---|-----------------|--|----------------------|-------------------------------------|-----------------|---|--|--|-------------|--|
| | 專線小巴 GMB | 紅色小巴 ⁽³⁾ RMB ⁽³⁾ | 小計 Sub-total | 新渡輪 Sun Ferry | 天星小輪 "Star" Ferry | 其他持牌渡輪 Other Licensed Ferries | 小計 Sub-total | | | | | |
| 2016 | 1 527.4 | 307.3 | 1 834.6 | 39.4 | 53.4 | 38.0 | 130.8 | 933.1 | 234.1 | 137.7 | 12 591.5 | 366 |
| 2017 | 1 519.5 | 295.3 | 1 814.8 | 38.2 | 52.8 | 37.2 | 128.2 | 898.0 | 231.6 | 139.0 | 12 690.8 | 365 |
| 2018 | 1 518.0 | 288.1 | 1 806.1 | 36.8 | 53.9 | 36.7 | 127.3 | 889.0 | 225.4 | 139.8 | 12 868.2 | 365 |
| 2019 | 1 478.4 | 282.7 | 1 761.1 | 36.8 | 49.2 | 36.2 | 122.2 | 854.6 | 213.7 | 141.1 | 12 439.6 | 365 |
| 2020 | 1 111.2 | 182.7 | 1 293.9 | 30.8 | 23.3 | 31.8 | 85.9 | 659.7 | 157.6 | 115.0 | 8 927.9 | 366 |
| 2020 / 04 | 960.3 | 155.5 | 1 115.8 | 27.6 | 19.4 | 27.7 | 74.8 | 531.7 | 133.1 | 97.6 | 7 279.2 | 30 |
| 05 | 1 102.0 | 177.7 | 1 279.6 | 33.1 | 24.1 | 33.2 | 90.5 | 676.7 | 161.6 | 112.7 | 8 914.9 | 31 |
| 06 | 1 262.9 | 206.5 | 1 469.4 | 34.3 | 24.8 | 34.9 | 94.0 | 782.4 | 183.6 | 131.2 | 10 323.5 | 30 |
| 07 | 1 065.0 | 175.0 | 1 240.0 | 28.0 | 18.3 | 28.9 | 75.3 | 627.7 | 155.5 | 109.3 | 8 413.6 | 31 |
| 08 | 934.5 | 153.3 | 1 087.9 | 24.7 | 15.8 | 25.5 | 66.0 | 552.4 | 139.6 | 94.6 | 7 307.5 | 31 |
| 09 | 1 142.5 | 188.7 | 1 331.2 | 29.5 | 20.1 | 30.8 | 80.4 | 707.8 | 163.5 | 117.5 | 9 361.1 | 30 |
| 10 | 1 225.6 | 202.3 | 1 427.9 | 37.8 | 26.1 | 39.4 | 103.3 | 735.5 | 168.2 | 130.4 | 10 170.6 | 31 |
| 11 | 1 272.9 | 209.3 | 1 482.2 | 35.7 | 27.0 | 38.4 | 101.1 | 738.7 | 170.7 | 137.2 | 10 522.5 | 30 |
| 12 | 1 052.5 | 173.2 | 1 225.7 | 30.2 | 25.4 | 32.3 | 87.9 | 617.6 | 143.9 | 116.2 | 8 469.9 | 31 |
| 2021 / 01 | 1 070.9 # | 175.8 # | 1 246.7 # | 29.8 | 20.3 | 31.5 | 81.6 | 600.9 | 143.2 # | 114.3 | 8 456.9 # | 31 |
| 02 | 1 124.7 # | 186.1 # | 1 310.7 # | 37.8 | 25.2 | 38.3 | 101.4 | 687.9 | 153.7 # | 117.5 | 9 140.9 # | 28 |
| 03 | 1 235.4 # | 204.7 # | 1 440.2 # | 36.0 | 24.4 | 35.9 | 96.3 | 712.6 | 166.3 # | 132.7 | 10 129.1 # | 31 |
| 04 | 1 252.7 # | 208.1 # | 1 460.8 # | 38.7 | 27.9 | 42.1 | 108.7 | 735.6 | 172.8 # | 133.2 | 10 313.3 # | 30 |
| 05 | 1 296.9 # | 214.0 # | 1 510.9 # | 33.7 | 23.6 | 36.4 | 93.6 | 785.1 | 179.7 # | 139.9 | 10 598.2 # | 31 |
| 06 | 1 307.6 # | 215.8 # | 1 523.4 # | 32.1 | 24.1 | 33.7 | 89.9 | 795.2 | 184.7 # | 141.7 | 10 806.1 # | 30 |
| 07 | 1 298.4 # | 214.3 # | 1 512.7 # | 34.3 | 27.5 | 33.8 | 95.6 | 803.3 # | 186.4 # | 140.5 | 10 855.2 # | 31 |
| 08 | 1 310.6 # | 215.0 # | 1 525.6 # | 36.1 | 28.0 | 34.3 | 98.4 | 813.8 # | 193.7 # | 139.2 | 10 982.7 # | 31 |
| 09 | 1 373.5 # | 223.9 # | 1 597.4 # | 33.8 | 24.1 | 34.9 | 92.8 | 823.1 # | 196.9 # | 153.8 | 11 529.5 # | 30 |

Transport Department September 2021 Monthly Report

The below pictures retrieved from residents also reflect the situation of people queuing up for ferry to Peng Chau in the past two months.



Problem**Demand**

With the growing popularity of Peng Chau, people always wonder what they can do in this place. Even though there are numbers of videos and blogs introducing the place, the information is so dispersed, or they just highlight the hot spots. Some information is missing on the internet, like the workshops in Peng Chau, tourists may not be able to get this information unless they follow the social pages of those workshop organizers. Therefore, this website aims to resolve the problem of dispersed, invalid or outdated information to facilitate their trip planning journey by consolidating all the valid and up-to-date information.

Problem statement

How might we make people who are new to Peng Chau too address the problem of dispersed, inaccurate and outdated information about Peng Chau on the internet to achieve the goal of better planning and experience for their trip to Peng Chau?

Supply

Tourism generates a great part of the revenue of the shops on Peng Chau. However, some shops they lack channels to promote their shops and most of them currently are lacking the booking system. The long queue always diverts the customers away. This website aims at providing a place for them to promote and offer a booking system for them.

Problem statement

How might we make the shop owner address the problem of not having enough promotion of their shops and the unavailability of the booking system to achieve the goal of generating more revenue for them from the tourists?

Target Persona

1. Youngsters who aged between 18 – 25 years old who like to explore new places with their friends.
2. Local shop owners who would like to expand their business in the tourist sectors.

Competitors and positioning

Requirement

Information Requirement

In order to provide a consolidated website for all the information that a user will need during trip planning.

1. Activity
 - a. Information activity, like sightseeing spots, sport activities, workshops etc, will be needed.
 - b. Detailed information includes the type of the activity and what they can do there.
2. Restaurants
 - a. Restaurant's information includes type, address, phone number, recommendation and description.
3. Traditional events
 - a. Information about traditional event will facilitate users who would like to experience the traditional events and feel the vibe to plan the date of travelling to Peng Chau.
 - b. The date, picture and a brief description will be provided for users to have a glance on the events.
4. Transportation
 - a. Transportation includes all the information of the origins and destinations that tourists from and to.
 - b. Information on private boats will be provided as well.

Functional Requirement

1. Map
 - a. Mapping function will demonstrate the location of the hot places.
2. Carousel banner
 - a. It acts as a promotion space for any partners would like to promote their activities/shops.
3. Forum
 - a. Discussion forum is exclusive to registered members where they can share their trip experiences.
4. Booking
 - a. Booking function is exclusive to registered members where they can book our partnership stores to plan their journey ahead.
5. Reviews
 - a. Review function is available for each place and store where users can take other comments into consideration, for registered members, they can also leave a review.
6. Direct link to the social networking sites of certain activity organizers
 - a. Linking to the social networking sites will allow users who are interested in the activity to have a look on the more detailed information from the social networking sites.

Data Requirement

Data is scrapped from TripAdvisor.com.

Sources of data:

1. Openrice
 - a. Address
2. Tourism Board
 - a. Traditional events
3. Social Networking Sites of the shops
 - a. Contact details and opening hours
 - b. Description

Additional sources for missing data:

1. Firsthand data
 - a. Directly visit the shops to look for information
 - b. Personal experiences
 - c. Asking the Rural Committee Members for the events

Design

Design Prototypes

Design prototypes for desktop and mobile version of the website were set up through Figma.

Desktop version: <https://www.figma.com/proto/luoOTWNCeqTLa6aj0Lm9l0/Peng-Chau-Website?node-id=144%3A394&starting-point-node-id=144%3A394>

Mobile version: <https://www.figma.com/file/axN6AwYxZBU8bSNgPsANf2/Peng-Chau-Mobile>

Usability Test Result

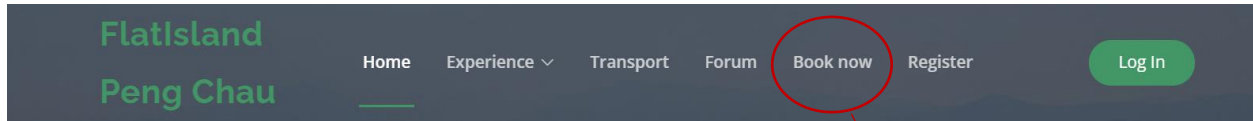
Usability tests were conducted with five users. Usability test result summary as below.

| | Task 1 | Task 2 | Task 3 | Task 4 |
|---|--|--|--|--|
| Task details | information searching on the website when they want to explore more about Peng Chau | search for the information they need when they are asked to plan for a trip to Peng Chau | perform the reservation | share their experiences, trips, comments and feelings after the completion of the trip |
| Successful Completion Rate | 100% | 100% | 40% | 100% |
| Average Time Used | 1:41 | 2:40 | 2:00 | 0:48 |
| Longest Completion Time | 2:45 | 7:51 | / | 1:08 |
| Shortest Completion Time | 0:51 | 0:35 | / | 0:25 |
| Time Base Efficiency (goals/sec) | 0:17 | 0:53 | 0.013 | 8:31 |
| Observation/Comment | Only 2 participants would look at the top activities and food in the home page | <ul style="list-style-type: none"> • 3/5 participants also browse the shop category in this task • 2/3 suggested that reviews from others are important • the wording of “events” and “activities” is confusing • 4/5 comment that the ferry schedule is important | <ul style="list-style-type: none"> • 1 suggested that it was too troublesome to be redirected to the registration and log-in page after she has filled all the information • 1 noticed the reservation button but did not click • 2 did not even click into the item details page; therefore, they were not able to complete the task | 1. the comment icon was confusing, she did not know if that meant editing a post or commenting to others’ posts. |

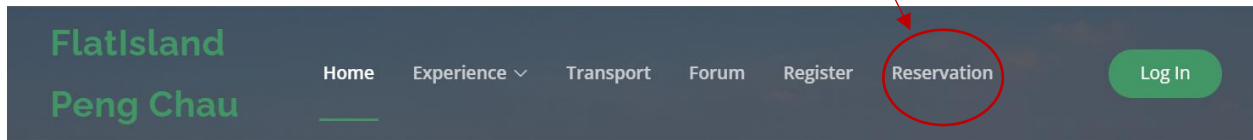
A/B Test

A/B test is used to test which the wordings and the position of the booking function is better.

Original



Testing version



Result

| | OBSERVED DATA | | | OPTIMIZE ANALYSIS | | |
|--|---------------------|--------------------|------------------------|------------------------|---------------------|---------------------|
| | Experiment Sessions | Experiment Bounces | Calculated Bounce Rate | Probability to be Best | Modeled Bounce Rate | Modeled Improvement |
| <input checked="" type="checkbox"/> Variant ↑ <input checked="" type="checkbox"/> Original 0 active visitors | 14 | 0 | 0.00% | 53% | 0.1% — 22.6% | Baseline |
| <input checked="" type="checkbox"/> book/reserve 0 active visitors | 12 | 0 | 0.00% | 47% | 0.1% — 25.4% | -5,484% to 98% |

The original version is slight better than the testing version so original version will be used in the website.

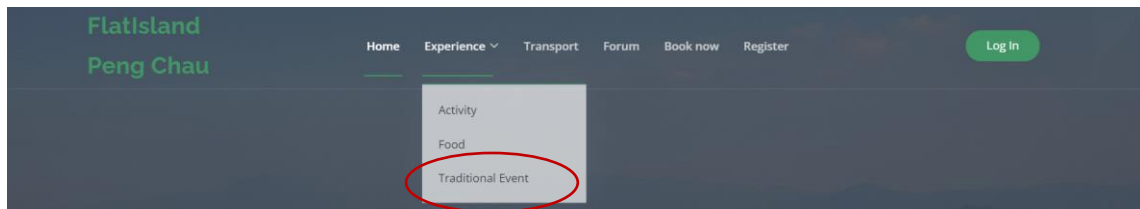
Refined Design

After the usability test and the A/B test, design is fined. Majors refine as follow,

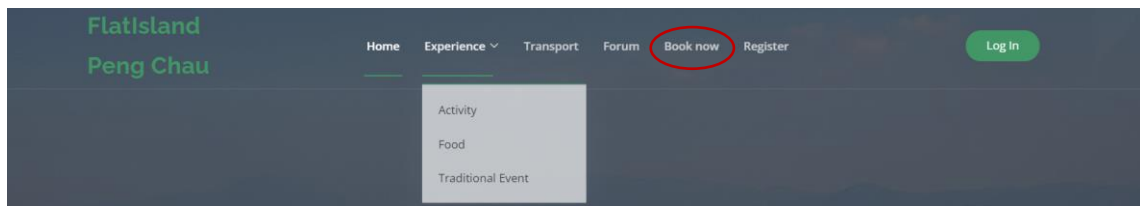
1. Carousel banner is placed under the main visual to enhance the exposure of event/ store promotion.



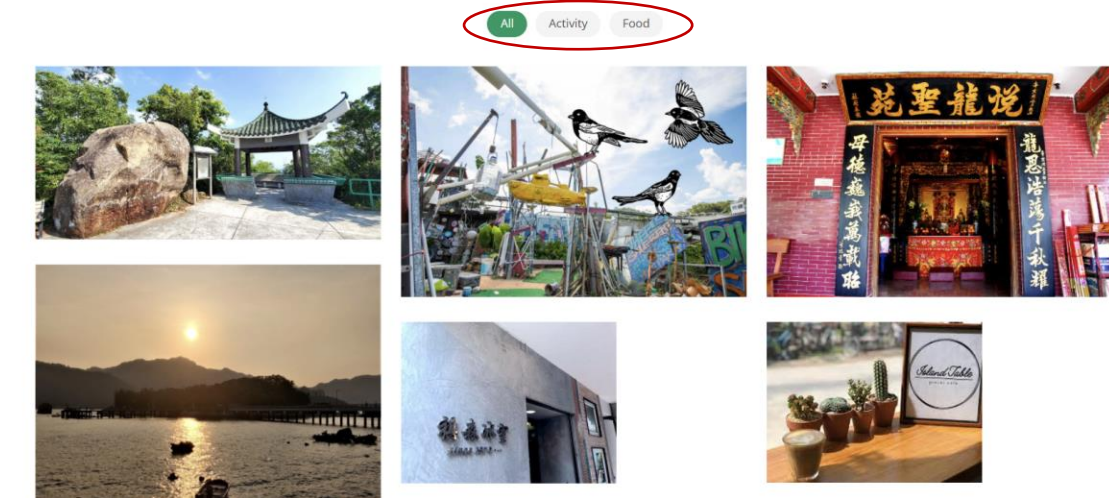
2. “Event” is changed to “Traditional Event” for reduce confusion between “Activity” and “Event”



3. Booking function is placed in the navigation bar to increase the chance of usage

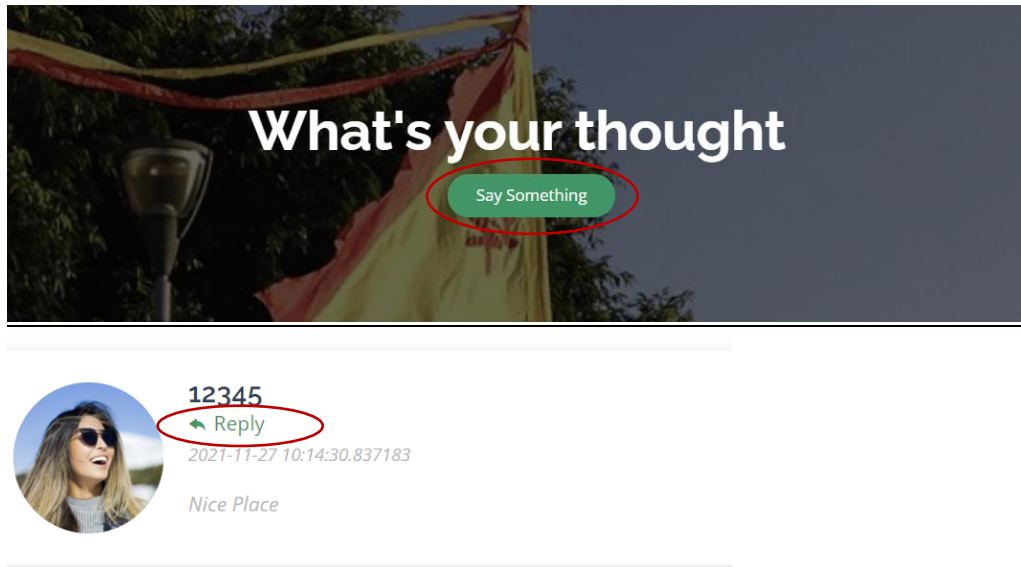


4. For “Trending” section, all the hot items are placed together with selection function where users can view the hot items according to their preferences.



5. After clicking the “Book now”, users will be redirected to the log in page before they can make a booking to enhance the usability.

6. The “reply” logo in the forum is changed and added with “reply”, while the adding new post function is change to “say something”, to reduce confusion between logo.



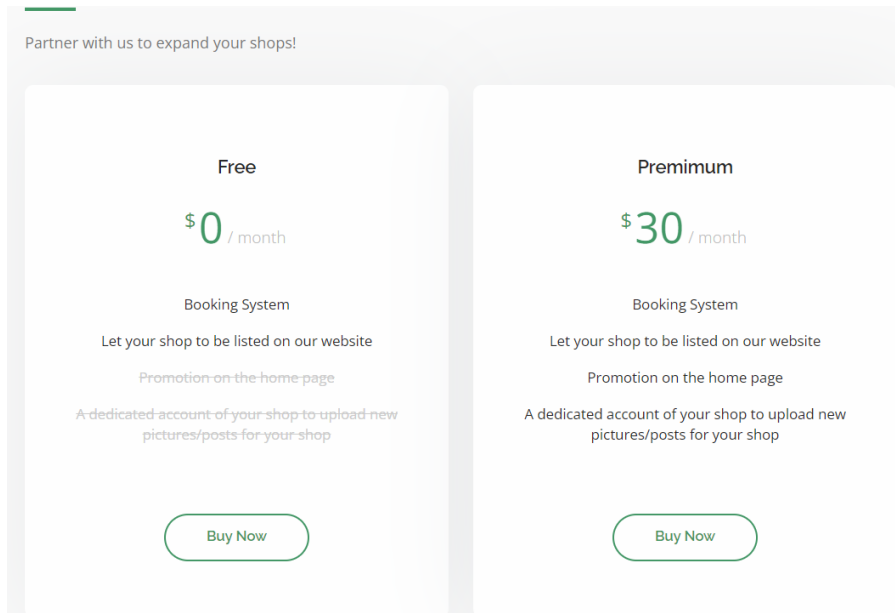
Business Aspect

With a successful example of a website developed by Hong Kong Resort Co. Ltd on Discovery Bay, which provides same function for Discovery Bay. Link: <https://www.visitdiscoverybay.com/en/home/> It is believed that same idea is applicable to Peng Chau.

1. Partnership scheme

This aims to provide different kinds of partnerships with the shops. There are two choices for the partnership.

- a. Free of charge:
 - i. To have their shops listed on our website
 - ii. Enjoy the booking system if they want.
- b. \$30 per month:
 - i. Promotion on the home page of the website
 - ii. With a dedicated business account for their shops to promote and have their message pinned at the top of their own shop's page.



2. Exclusive offer

The shop owners or service providers will provide exclusive offer for users who book through our website. Below are some examples,

To anywhere

Book your own boat take you anywhere. Book through us to enjoy exclusive offer!



BoatJai

Contact for more enquiries
Tel: +852 5118 7265 (Hei)
Facebook: Boat Jai 香港船河

book



Tak Lee Co.

Provide all kind of services, from logistic to transportation
Contact for more enquiries
Tel: +852 9322 5616 (Mr Leung)

book

- a. BoatJai
 - i. It will only provide Peng Chau services for users that book through our website
- b. TakLee
 - i. Discounted price for logistic service that book through our website

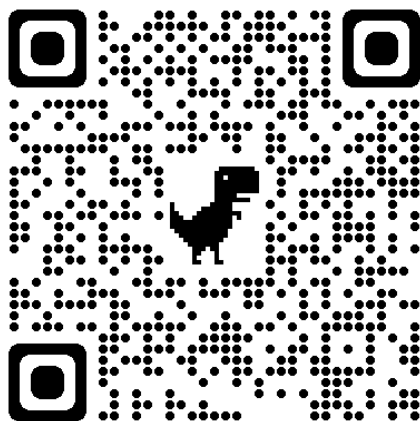
3. Booking Service

Currently, there is no booking platform for the tourists to make reservation for the activities or restaurants. Tourists will usually have to come and find out the information in person.

Therefore, this website will be the first website not only providing up-to-date information but also the first booking platform for Peng Chau.

4. Offline promotion

Our partner stores or service providers will stick the QR code of our website to notify that booking service is available on our website. This help with the offline promotion of our website.



The website provides over 30 restaurant choices and over 20 activities information. The corporation with the service providers and shop owners will certainly be the greatest revenue of the website.

Evaluation

Booking function is the Unique Selling Point (USP) of the website, therefore, special tracking is added to the booking button in the navigation bar and the submission button in the booking form. As booking is exclusive to members only, therefore, login rate is tracked as well.

Below shows that the book button in the navigation bar records the highest click rate which means people are interested in the booking function. But the membership function may lower the intention to commit a booking in the system. Therefore, in the future, if the website generates enough revenue, the business model can consider open the booking function to the public but let exclusive offer remains for member only.

| Plot Rows Secondary dimension Sort Type: Default <input type="text"/> advanced | | | | | |
|--|------------------|-------------------------------|-------------------------------|----------------------------|------------------------------------|
| <input type="checkbox"/> | Event Label ? | Total Events ? ↓ | Unique Events ? | Event Value ? | Avg. Value ? |
| | | 74 % of Total: 83.15% (89) | 32 % of Total: 88.89% (36) | 0 % of Total: 0.00% (0) | 0.00 Avg for View: 0.00 (0.00%) |
| <input type="checkbox"/> | 1. Book Nav | 36 (48.65%) | 14 (43.75%) | 0 (0.00%) | 0.00 |
| <input type="checkbox"/> | 2. Login | 17 (22.97%) | 9 (28.12%) | 0 (0.00%) | 0.00 |
| <input type="checkbox"/> | 3. Booknow | 13 (17.57%) | 6 (18.75%) | 0 (0.00%) | 0.00 |
| <input type="checkbox"/> | 4. Longin Submit | 8 (10.81%) | 3 (9.38%) | 0 (0.00%) | 0.00 |

Below data shows that transport and activity are the top pages that viewed by the users, except book and login. Therefore, these are considered as important elements on the website. Frequent update on the activity information is needed in the future when maintaining the website.

For transportation, future cooperation with ferry company can be considered to allow access to the API of their company to show the real-time number of passengers taking the ferry.

| Page | | Pageviews | % Pageviews |
|----------------------|--|-----------|-------------|
| 1. / | | 173 | 24.23% |
| 2. /login | | 103 | 14.43% |
| 3. /login?next=/book | | 55 | 7.70% |
| 4. /transport | | 50 | 7.00% |
| 5. /activity | | 44 | 6.16% |
| 6. /forum | | 40 | 5.60% |
| 7. /food | | 36 | 5.04% |
| 8. /book | | 30 | 4.20% |
| 9. /event | | 24 | 3.36% |
| 10. /register | | 24 | 3.36% |

[view full report](#)

For future development, except for Peng Chau, the websites can further expand its scope to other popular islands, like Cheung Chau and Lamma Island. Information for cross-islands activities can be included to allow users to plan islands trip.

Appendix

1. Figma Prototypes:

Desktop version: <https://www.figma.com/proto/luoOTWNCeqTLa6aj0Lm9l0/Peng-Chau-Website?node-id=144%3A394&starting-point-node-id=144%3A394>

Mobile version: <https://www.figma.com/file/axN6AwYxZBU8bSngPsANf2/Peng-Chau-Mobile>

2. Bootstrap Templates

<https://bootstrapmade.com/demo/templates/KnightOne/#>

<https://bootstrapmade.com/family-multipurpose-html-bootstrap-template-free/>

<https://bootstrapmade.com/medicio-free-bootstrap-theme/download/>

3. Openrice
4. Tourism Board
5. Transport Department
6. TripAdvisor
7. Google Analytics, Google Optimize, Google Tag Manager
 - a. Account name: Flat Island Peng Chau
8. Persona

