

Development of Web Applications for Tourist Attraction and OTOP in Bang Len, Bang Yai, Nonthaburi

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Abstract— The objectives of this research were to develop a web application and study the satisfaction of tourists towards the web application of tourist attractions in Bang Len, Bang Yai, Nonthaburi for encouraging more tourists. This research is composed as follow 1) development of web applications for tourist attraction and OTOP in Bang Len, Bang Yai, Nonthaburi. The content consists of log in and after that member can use information for travel around community, search for restaurant information and accommodation in Bang Len, OTOP data and ratings of that tourist attraction 2) rating of tourist attractions and restaurants in Bang Len Sub-district 3) the samples used in the research were tourists and people in the area who entered Bang Len Sub- district, of 20 people 4) questionnaire to study satisfaction and for data analysis such as percentages, mean, and standard deviation. The results of the study found that the satisfaction assessment of web application development of web applications for Tourist attraction and OTOP in Bang Len, Bang Yai, Nonthaburi Province are high; the mean is 4.17 and the standard deviation is 0.35. It can be concluded that the tourist attraction is developed to be useful to tourists and to use them appropriately.

Keywords: *Development, Web Application, Bang Len*

I. INTRODUCTION

A. Background and importance of the problem

Now, tourism competition is increasing in every corner of every province across the country. Tourism promotion is another thing that helps to promote tourism in the country. make tourists Flow to travel in various provinces more if there is no tourism promotion in the province. It will make tourists do not know the attractions in Nonthaburi. and will not be able to attract tourists Therefore, various public relations presentation strategies are used as an important mechanism to encourage tourists to join in tourism

activities. in order to achieve the main objectives of tourism, the plan is to create a trend for travel decision making causing tourists to have a positive attitude towards attractions and organizers as well as creating a trend in tourism leading to the creation of loyalty tourists, both in the form of returning to travel again and referrals as well as aiming for goals The destination is to give tourists the experience of traveling in Thailand.

From the importance mentioned above, we want to develop web application to promote tourism in Bang Len Sub-district. Nonthaburi Province in order for businesses in Nonthaburi to adjust and has developed by promoting and presenting important tourist attractions of Bang Len Sub-district Municipality Nonthaburi Province Currently, Bang Len Sub-district Municipality is not well known. Therefore, the researcher would like to help in the part of website development and design of tourism public relations media in Bang Len Sub-district. to convey the strength of the culture that is a selling point Impress tourists in terms of way of life, traditions, local wisdom that is outstanding, unique in Bang Len Sub-district, Bang Yai District, which is an option for those interested to visit the website, which is another channel for decide to travel The website also collects important information about the Bang Len Sub-district Municipality as a body of knowledge that is passed on from the local scholars to pass on to their children for future learning.

B. Project objectives

To develop web application development and OTOP Products in Bang Len Sub- district Bang Yai District, Nonthaburi Province to help the developed web applications motivate tourists. increased travel into the district and to study the satisfaction of tourists on the web Application for tourist attractions in Bang Len Sub-district, Bang Yai District, Nonthaburi Province

C. Scope of the research

- 1) User section
 - a) Visit tourist attractions, restaurants and OTOP in Bang Len Subdistrict.
 - b) Attractions cannot be rated and restaurants.
- 2) Member's section
 - a) Able to register and login.
 - b) Visit tourist attractions, restaurants and OTOP in Bang Len Sub-district.
 - c) Rate and comment on attractions and restaurants.
 - d) Edit their own member information.
- 3) Admin section
 - a) Edit the member's information in the system.
 - b) Add, delete, edit tourist attractions information and restaurants.
 - c) Check the information in the system

D. Expected benefits

- 1) Get satisfaction from visitors to the web application, tourist attractions and OTOP, Bang Len Municipality.
- 2) Promoting tourism business in Bang Len Municipality.

II. THEORY AND RELATED RESEARCH

Research for developing web applications for Tourism attraction web application development and OTOP Products In Bang Len Bang Yai, Nonthaburi Province In this preparation, you must study the content, information, and various theories related to the research, with details as follows

A. GitHub Programs

GitHub is an Internet web hosting service that stores version control using Git, often used to store source code. Retains the original features of Git Distributed version control and source code management are included, and GitHub has added additional features such as access control and collaboration features. such as Bug tracking, feature requests, task management, and wikis for every project.

GitHub offers two service plans: Private and Free Account, with the latter, often used to store software models in open-source projects. As of June 2018, GitHub reported that it had over 28 million users and stored 57 million source code projects, 28 million of which were public projects. GitHub has become the world's largest source code repository [1]

Advantages and Disadvantages of GitHub Free service and payment A quick search in the structure of the repos is a large community. and easy to find help It has practical tools for good collaboration and integration with

Git, and it's easy to integrate with other third- party services. It also works with TFS, HG, and SVN.

There is a space limitation as you cannot exceed 100MB in a single file while storage is limited to 1GB in the free version.

B. Language used in system development

1) CSS language

CSS, short for Cascading Style Sheet, often abbreviated as "Style Sheet", is a language used as part of the formatting portion of an HTML document. CSS defines rules for specifying the style (or "Style") of the content in Documents, including text color, background color, font type. and text placement This style or style is based on the principle of separating the HTML document content from the directives used to format the display. Set the format of the document display. does not depend on the content of the document This makes it easier to format the output of an HTML document, especially in the event that document content changes frequently. Or want to control how HTML documents are rendered uniformly across all pages within the same website? Style rules for HTML documents were first added in HTML 4.0 in 1996 as CSS level 1 recommendations set by the WWW. Consortium (W3C)

Differences between CSS and HTML

CSS and HTML have different functions. HTML is responsible for laying out a document in a format that is correct, easy to understand, not related to display, CSS is responsible for decorating documents to be beautiful. HTML is The coding part and the CSS part are the Design part [2]

2) HTML Language

HTML stands for Hyper Text Markup Language. It is a computer language used to create web pages (Web Pages) in the form of HTML files (files with the extension .htm / .html) which have a web browser (Web Browser). It is a program used to convert HTML files. An HTML file is an ASCII code file (ASCII) saved as a text file that can be created from a text editor such as Notepad or Word Processing in general. which the nature of the HTML file There are two types of HTML tags: Container Tag and Empty Tag (Empty Tag). where the container tag consists of an opening tag and a closing tag, where the closing tag is preceded by a / eg <H1>. . .</H1> and an empty tag. There will be only opening tags, such as <HR> , where tags can be written in uppercase or lowercase letters, will not affect the display of the web browser, eg
,
, <Br.> or
 web browsers will interpret the same meaning. HTML file structure is divided into 2 parts: Head Section (Head Section) and Body Section (Body Section), which has tags <HTML> and </HTML>. > is a file scope which header It defines specific information about the web page, such as the title of the web page within the <HEAD> and </HEAD> tags, and for the body, the details to be displayed on the web page, such as the text and images within the <BODY tag. > and </BODY> [3]

C. Database Manager

phpMyAdmin is a program developed using PHP language to manage MySQL databases instead of keying commands. Because if we are going to use a MySQL database, sometimes it will be difficult and difficult to use. Therefore, MySQL database management tools have been created to make managing MySQL DBMSs more easily and conveniently. [4]

D. Relevant research

Narumon Inthirak. (2018) has developed a web application to promote tourist attractions. Maha Sarakham Province using virtual reality technology To study the satisfaction of users of the application to Promote tourist attractions in Maha Sarakham Province by using virtual reality technology. The results of the research are as follows: The sample used in the research was 30 tourists visiting a designated tourist destination using a random selection method. The research tools are Application to promote the source Tourism in Maha Sarakham Province using virtual technology The satisfaction questionnaire was analyzed using basic statistics. The results of the satisfaction assessment of the sample group towards the application to promote tourism in Maha Sarakham Province using virtual technology The overall satisfaction of using the application was the most (X = 4.66, S.D. = 0.10) [5]

Narit Jungsaman, Nikhom Lonkutthod, Surachet Wongchaipratum, Suchart Dumanin Creating the right itinerary estimate timetable Estimated travel expenses including geographic information services Because the development of applications on the Android operating system is the most widely used operating system with the largest number of users in the world, covering various brands of smartphones and tablet devices and reasons. price with multiple levels of user choice and the most innovative company in technology is Google. It is the creator of Google Map, the world's best navigation and geolocation system that ensures the development of applications on the operating system. Android will make it possible to maximize efficiency and productivity. [6]

III. RESEARCH METHODOLOGY

This research aims to develop a web application for tourist attractions. and OTOP products in Bang Len, Bang Yai, Nonthaburi and to study the satisfaction of tourists towards the web application of tourist attractions in Bang Len and to develop web applications to motivate more tourists to travel.

A. Context Diagram Design

1) Context Diagram, Web applications for Tourism attraction web application development and OTOP Products In Bang Len, Bang Yai, Nonthaburi.

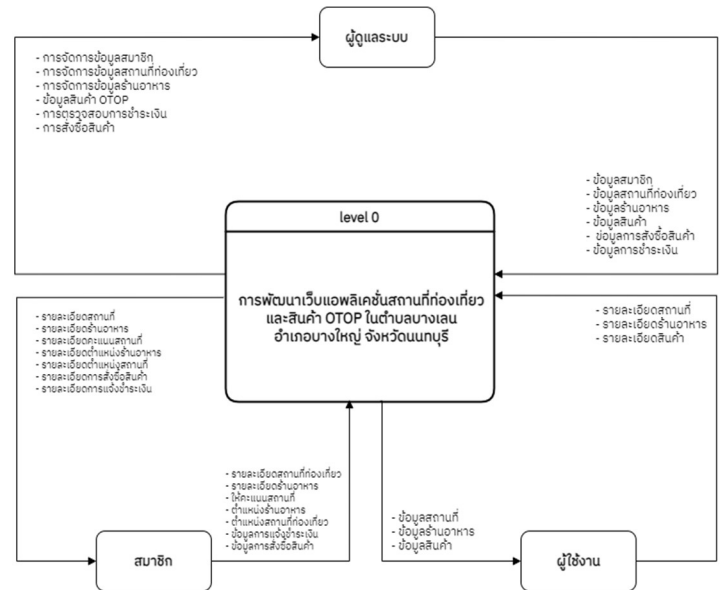


Figure 1. Context Diagram Level 0

From figure 1. Context Diagram Level 0, web application development for tourist attractions in Bang Len Sub-district, Bang Yai District, Nonthaburi Province

1) Context Diagram shows the details of the main working process. Contained within the overview of the web application development system, attractions, and OTOP products in Bang Len Sub- district, Bang Yai District, Nonthaburi Province

2) Administrators are responsible for managing member information. tourist information restaurant information OTOP product information order and check payment

3) Members will be able to apply for membership. And see information about attractions, restaurants, the location of attractions. Order details and payment details

4) Users can visit restaurant information. Tourist information OTOP product information and can view the details of the comments but unable to rate

B. Analysis of data and statistics used in research.

1) General Data Analysis

a) Percentage Value is used in a calculation that compares a value between a number and another number that is equal to 100 in a percentage calculation

$$P = \frac{F}{N} \times 100$$

P = The percentage.

F = The frequency that you want to convert to the percentage.

N = Percentage instead of the entire frequency.

b) Mean combines the values obtained by combining all the data and dividing it by the total amount of data and

using a summary of the comments to know the opinions to what level they are at. The sum of the differences between each score from the average of that set of points.

$$\bar{x} = \frac{\sum x}{n}$$

\bar{x} = Mean.

$\sum x$ = Grand Total of Points.

n = Total number of people.

c) Standard Deviation, the square root of the variance, is a measure of distribution.

$$\sqrt{\frac{\sum (X - \bar{x})^2}{n - 1}}$$

S.D. = Sample Standard Deviation

X = Individual scores

\bar{x} = Average

N = Amount

IV. RESEARCH RESULT

A. The implementation of web applications for Tourism attraction web application development and OTOP Products In Bang Len, Bang Yai, Nonthaburi, the results are shown in the following figure.



Figure 2. The sign up screen.

From figure 2 shows the user sign up screen. to login and to comment in the form of ratings of attractions and restaurants.



Figure 3. The main page showing information and maps of Bang Len, Bang Yai, Nonthaburi.

From figure 3 Users and members can visit the main page. which will show information about the photos of the places in Bang Len, Bang Yai, Nonthaburi.



Figure 4. The main page showing information and maps of Bang Len, Bang Yai, Nonthaburi.

From figure 4 The map is shown in Bang Len Sub-district. which is divided into groups. The purple line represents the entire area in Bang Len Sub-district, Bang Yai District, Nonthaburi Province, In the dark orange part, it represents Moo 1, Red represents Moo 2, Dark purple represents Moo 3, Yellow represents Moo 8, Blue represents Moo 4, Green represents Moo 9, Light orange represents Moo 10, Pink represents Moo 11, Blue represents Moo 6, Gray represents Moo 7

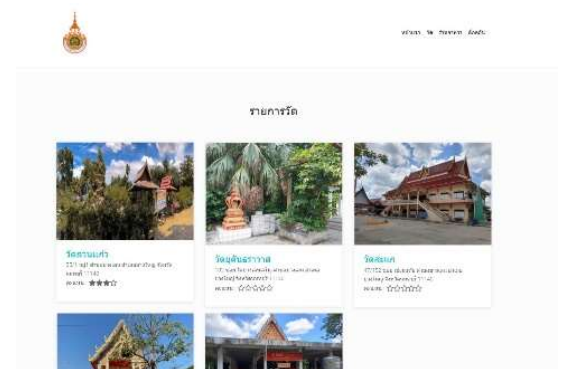


Figure 5. The travel page showing the attractions of Bang Len, Bang Yai, Nonthaburi

From figure 5, Users and members can visit attractions in the form of temples. It shows details about the name, address and shows the overall rating of the attraction. when clicking to the selected location Inside will show an overall

picture of that place. details and map and there will be restaurants nearby Members will be able to rate attractions and restaurants as well.

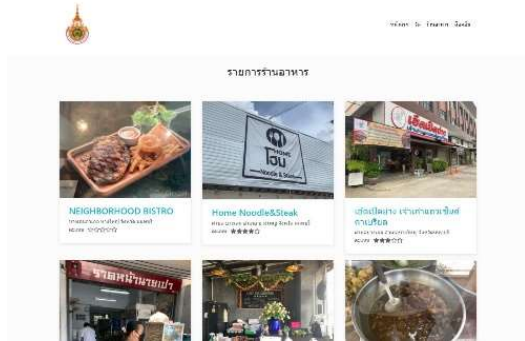


Figure 6. The restaurant page showing the front of the restaurant in Bang Len Sub-district

From figure 6, Users and members can see restaurants in Bang Len Sub-district. It shows details about the name, address and shows the overall rating of the place. Clicking within the selected restaurant will display details such as an overview of the restaurant. Details of food items and opening-closing times And there will be nearby attractions on the side. Members can rate attractions and restaurants as well.

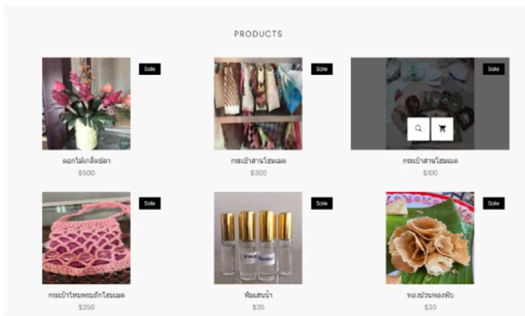


Figure 7. OTOP products page

From figure 7, Users and members can visit OTOP products in Bang Len Sub-district. It will show the details of the product, image, and price of that product.

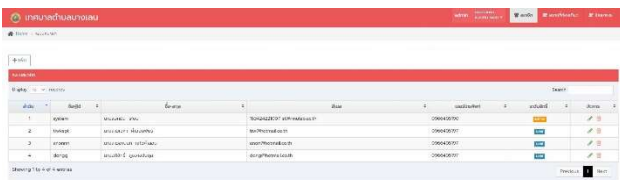


Figure 8. Manage Members

From figure 8, The admin section, shows editing, adding, deleting member's information and able to grant permissions to users.

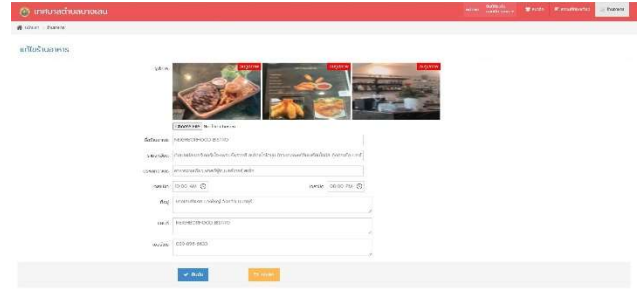


Figure 9. Manage restaurants information

From figure 9 In the admin section, can edit restaurant information in the area.



Figure 10. Manage restaurants information

From figure 10, the admin section It shows the tourist information in the system. which will contain image data details of the place and travel map



Figure 11. Manage edit tourist attractions information.

From figure 11 The admin section, shows editing, adding, deleting tourist attractions.

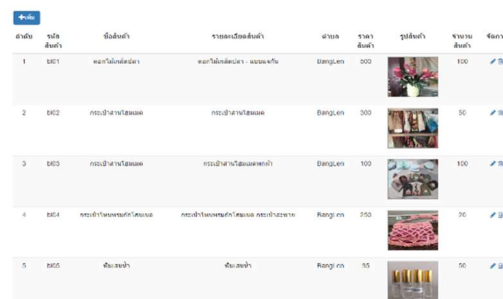


Figure 12. Manage OTOP products information.

From figure 12 showing the page of admin section will show OTOP product information in the system which will contain image data details of the place and travel map and can edit, add, delete information

B. Satisfaction Assessment Results

Satisfaction Assessment form of Development of web applications for tourist attractions and OTOP in Bang, Len Bang Yai, Nonthaburi.

TABLE I. NUMBER AND PERCENT OF SATISFACTION SURVEY REPOSNDENTS CLASSIFIED BY GENDER

Sex	Number	Percentage
Male	10	50
Female	10	50
Total	20	100

TABLE II. NUMBER AND PERCENTAGE OF SATISFACTION SURVEY REPOSNDENTS CLASSIFIED BY AGE

Age	Number	Percentage
Less then 18 - 22 years	4	20
Age 23 – 30 years	10	50
Age 30 years up	6	30
Total	20	100

TABLE III. NUMBER AND PERCENTAGE OF SATISFACTION SURVEY RESPONDENTS CLASSIFIED BY OCCUPATION

Occupation	Number	Percentage
Student	6	30
Government service	3	15
General employee	4	20
Personal business	4	20
Company employee	3	15
Total	20	100

TABLE IV. RESULTS OF DATA ANALYSIS ON THE LEVEL OF SATISFACTION OF THE RESPONDENTS

From Table IV, it was found that the level of satisfaction in Part 1: The satisfaction of those who used The website application for tourist attractions in Bang Len Sub-district, Bang Yai District, Nonthaburi Province had a mean of 4.14 and a standard deviation (SD) of 0.38, indicating that the attractiveness of the web application was at a high level, the mean was 4.05 and The standard deviation (SD) was 0.97, the web application was appropriate, at a high level, the mean was 4.05, and the standard deviation (SD) was 0.97, indicating that the web application was convenient and easy to use. It is at a high level with a mean of 4.10 and a standard deviation (SD) of 0.83. At a high level, the mean was 4.10 and the standard deviation (SD) 0.70.

List	Average	S.D	Satisfaction level
Section 1: Satisfaction of people who use the web application develop and OTOP Products In Bang Len Sub-district Bang Yai District, Nonthaburi Province			
1) attractiveness of web applications	4.10	0.97	Good
2) The web application is appropriate.	4.0	0.73	Good
3) The web application is convenient and easy to use	4.10	0.85	Good
4) Web applications are useful to tourists.	4.15	0.67	Good
Total Section 1	4.09	0.47	Good
Section 2: Tourist satisfaction towards tourist attractions in Bang Len Sub-district, Bang Yai District, Nonthaburi Province			
1) the beauty of art and culture of tourist attractions	3.90	0.97	Good
2) a variety of attractions	3.50	1.40	Good
3) Experience the way of life of the people in the community around the tourist attraction	3.45	1.15	Good
4) the beauty of the overall landscape of tourist attractions	4.15	0.93	Good
5) the condition of the road in the route to the tourist attraction	4.05	1.15	Good
6) Publicity of tourist attractions information	4.05	1.05	Good
Total Section 2	3.85	0.82	Good
Section 3: satisfaction of tourists with products OTOP of Bang Len Sub-district in the web application			
1) Variety of products	4.65	0.49	Good
2) Product quality	4.45	0.51	Good
3) Beauty of the product	4.75	0.44	Good
4) The price of the product is reasonable.	4.50	0.51	Good
Total Section 3	4.59	0.15	Good
Grand total	4.17	0.35	Good

The second part was the tourists' satisfaction with the tourist attractions in Bang Len Sub- district, Bang Yai District, Nonthaburi Province. The mean was 3.82 and the standard deviation (SD) is 0.81, which indicates the artistic and cultural beauty of the tourist attraction. At a high level, the mean is 3.86 and the standard deviation (SD) is 0.96, indicating a high degree of tourist diversity. The mean was 3.38 and the standard deviation (SD) was 1.47, indicating that people in the communities surrounding the attractions had a high level of experience. The mean was 3.43 and the standard deviation (SD) was 1.12, referring to the beauty of the landscape. Overall of attractions at a high level, the mean was 4.14 and the standard deviation (SD) was 0.91, indicating that the road conditions in the tourist route were at a high level, the mean was 4.05 and the standard deviation (SD) was 1.12. The mean was 4.05 and the standard deviation (SD) was 1.02 and the third part was the

tourists' satisfaction towards O-TOP products in Bang Len Sub-district, Bang Yai District, Nonthaburi Province. The mean was 4.55 and the standard deviation was 4.55. (SD) equal to 0.23 indicates that the product variety has a mean of 4.57 and a standard deviation (SD) of 0.60 indicates the quality of the product. The mean is 4.38 and a standard deviation (SD) is 0.59 indicates the beauty of the product. The mean is 4.76 and the standard deviation (SD) is 0.44 and the price is reasonable. The mean is 4.48 and the standard deviation (SD) is 0.51

C. problems and obstacles

- 1) The organizing committee must learn to use some new programs. to be useful to the research topic
- 2) System design data is complicated
- 3) The duration is limited.

V. SUMMARY OF OPERATING RESULTS

From the development applications for Tourism attraction and OTOP In Bang Len, Bang Yai, Nonthaburi that the organizer has developed It was found that the mean was 4.17 and the standard deviation was 0.35 at a high level. Shows that the web application can be used in practice which is consistent with the research of Narumon Inthirak. (2018) Maha Sarakham Province using virtual reality technology and research by Narit Jungsaman, Nikom Lonkutthot, Surachet Wongchaipratum, Suchart Dumnil. (2020: Abstract). Tourism Industry Application in Surin Province.

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