Chapter 6

Evaluation

6.1 Introduction

This section discussed the evaluation of the project, whether the initial goals of the project were achieved. At this final stage it is essential that the prototype is critically evaluated in order to decide whether the project is a success or a failure.

First section is the critical evaluation of the entire project based on achieved project objectives. The second section consists of an evaluation of the prototype by users. The third section includes a critical assessment of the project.

The current chapter explains the evaluation processes chosen by the author to critically evaluate the prototype.

6.2 Method of evaluation

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The evaluation of the prototype was carried out by checking whether prototype has achieved objectives mentioned on the project proposal and in its practical usage. For the evaluation the author selected two types of users:

- Expert user
- Ordinary Users

The selected method of evaluation was to present the prototype to above mentioned users through a demonstration. Then the feedback was analyzed through the responses received to the questionnaire issued to the users (*See Appendix B*).

6.3 Evaluation criteria

Evaluation was carried out to obtain opinions, remarks and suggestions about the product. Several techniques were used for evaluation. These included interviewing, questionnaires and demonstrations.

6.4 Review of objectives

The main Objective of this project is to provide restaurant order processing functionality based on mobile and web technology. When a user make request from WAP enabled web application or web application, the system will carry out following functionalities.

1) To Customer

- Order food and table reservation

By implementing the prototype, customers were able to view the all set menu with description and price and able to place a new order based on preferred menu. In addition to that table can be reserved thought the order processing function to the registered customer.

- Request new registration

Guest can request to register in to system if he desired to continue as a regular customer and to get system additional benefit for the regular customers.

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- Check order state

  Order status can be checked for the place orders

2) To service provider

- maintenance of user log

  The system provide user maintain facilities to the administrator. Registration request can be approved by setting state of the user. In addition to that user deletion and editing can be done.

- Maintenance of web site

  Maintaining menu, table, etc. facilities has been provided to the administrator in order to carry out efficient website service.

- Order handling

  Placed orders current status can be set by the chef when they parsing deferent processing cycles. This will help to provide fast order delivery for the customer.

6.5 Evaluation results

The majority of the users who evaluated this project were of the opinion that mobile and web based ordering system has a great business importance to restaurant carry out its operation to efficient manner. By using this system, it can improve the restaurant's service and competitiveness with others. The following evaluation results were based on user's comments obtained during the evaluation process.

Level of mobile literacy

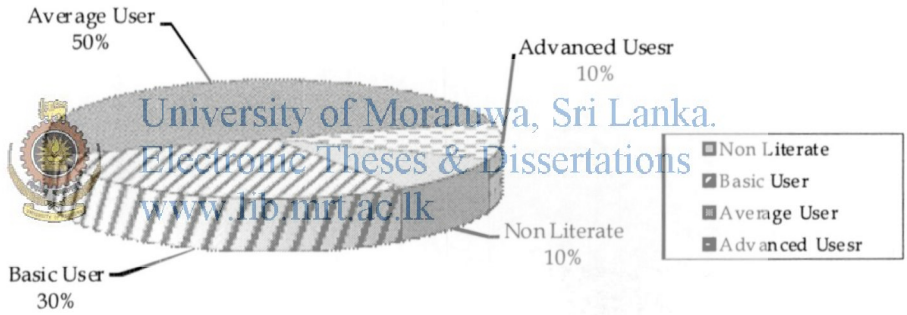

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Figure 6.1: Mobile Literacy level

The Mobile literacy level distribution of evaluators is illustrated in figure 6.1 (Q 4 of questionnaire)

Previous mobile based restaurant reservation system usage

100% of ordinary users commented that they haven't used a mobile based restaurant reservation program before. Professional user had previous experience using such a system. In this county some of the universities and organizations were involved developing in WAP enabled mobile based systems. (Q 7 of questionnaire)

Preferred restaurant reservation to do in manual method

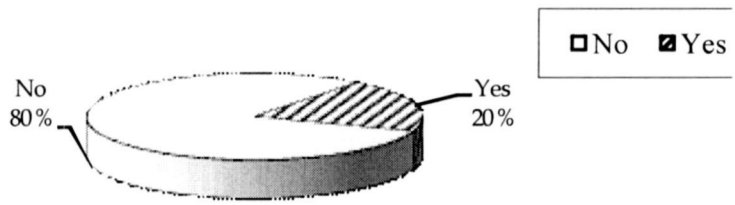

Figure 6.2: Preferred restaurant reservation to do in manual method

Answering to the questions directed at the evaluators whether they would prefer the primitive method of reservation or the proposed mobile based reservation system, 80% agreed to use the mobile based reservation system. Author's demonstration about project background before presenting the questionnaire was beneficial to the evaluators when providing answer as majority of them were unaware of the existence of reservation systems. Figure 6.2 illustrated above. (Q 8 of questionnaire)

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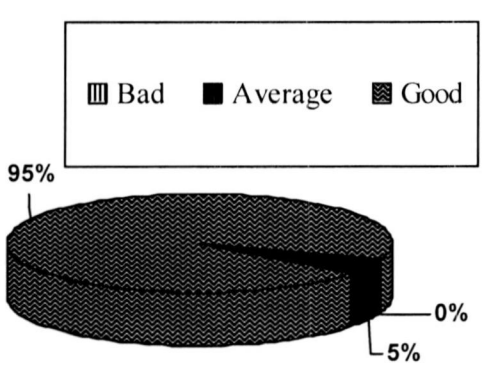
User-Friendliness of menus and interfaces



The evaluators' comments for the user friendliness of the system interfaces are shown in figure 6.3.

(Q -9 of questionnaire)

Figure 6.3: User friendliness of menus and interfaces

Level of user satisfaction

The satisfaction levels of the evaluators are illustrated in figure 6.4.

(Q 10 of questionnaire)

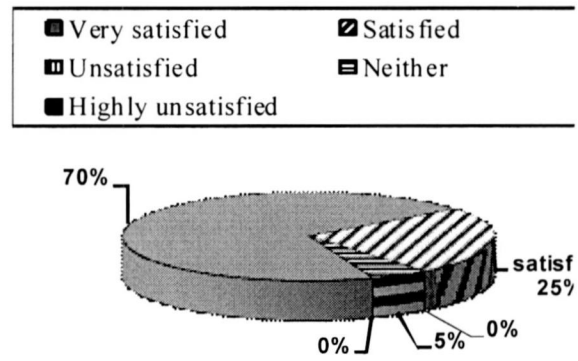


Figure 6.4: User satisfaction level

Suitability of mobile based reservation system for other organizations

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The suitability of mobile based reservation system for other organizations such as home delivery services and tourist hotels is illustrated according to evaluators' feedback in figure 6.5. (Q -11 of questionnaire)

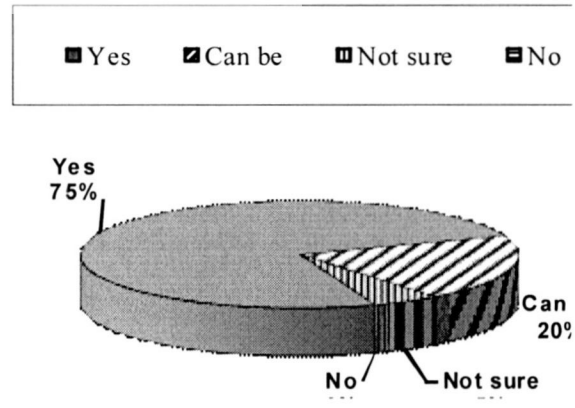

Figure 6.5: Suitability of mobile based reservation system for other Organizations

6.6 Usability of the proposed solution

Mobile based restaurant reservation system is letting its customers place orders via their mobile phone, before they even get to one of the fast food chain's locations. We should also note that there are plenty of web-based applications that offer mobile ordering, but the user experience of these is generally not nearly as good as it is on native apps.

The proposed solution is not confined to a specific restaurant with predefined food items and table reservation. The prototype was designed with maximum flexibility to handle any kind of restaurant foods servicers. Therefore the solution offered was a practical one, capable of being adapted to specific conditions encountered by real situations demanded by a necessitated project.

6.7 Testing

Testing of the system is carried out as a parallel activity together with system development and implementation. Each web page forms a module in the code model of this application. Therefore, each page written in Php code should be tested in isolation. When the pages are strung together integration. Testing was also carried out to ensure that the outputs of one web page are compatible and consistent with the inputs required by another related web page written in Php code. Therefore, module testing and integration are carried out during the system testing. A test plan is designed by defining the input and the output required and comparing it with the actual output. This approach is also known as the Black box testing technique.

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Test plan

The test strategy consists of a series of different tests that will fully exercise the system. The Primary purpose of these tests is to uncover the systems limitations and measure its full capabilities. A list of the various planned tests and a brief explanation of them follows bellow.

System test

The system tests were focused on the behavior of the system. User scenarios were executed against the system as well as screen mapping and error message testing. Overall, the system tests test the integrated system and verify that it meets the requirements defines in the requirements document.

Performance test

Performance test was conducted to ensure that the system's response times meet the user expectation and does not exceed the specific performance criteria.

Security test

Security tests determine how secure the system. The tests verified that an unauthorized user access to confidential data is prevented. Allowing different users to log in and verify the available user options with the user rights.

Following format is used to measure the system output in Black box testing

Test case No	01			
Form	Login form			
Functional specification	User authentication			
Test objective	To check whether the entered user name and password are valid or invalid			
Test data	User name: Password			
Step no	Steps	Data	Expected results	Actual results
1				
2				
3				

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4				
5				

Table 6.1 –Test document format

Actual test results

Test case no	01			
Form	Login form			
Functional specification	User Authentication			
Test objective	To check whether the entered User name and Password are valid or invalid			
Test data	User name Password:			
Step no	Steps	Data	Expected Results	Actual results
1	Enter user name And press login button	User name=admin	Should display message "invalid username or password"	Display message "invalid username or password"
2	Enter password and press login button	Password=123	Should display message "invalid username or password"	Display message "invalid username or password"
3	Enter user name and password and	User name=admin and Password=test	Should display message "invalid	Display message "invalid

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	press login button		username or password"	username or password"
4	Enter user name and password and press login button	User name =XYZ and Password=CEOS	Should display message "invalid username or password"	Display message "invalid username or password"
5	Enter user name and password and press login button	User name =XYZ and password=123	Should display message "invalid username or password"	Display message "invalid username or password"
6	Enter user name and password and press login button	User name =" " and password=" "	Should display message "invalid username or password"	Display message "invalid username or password"
7	Enter user name and password and press login button	User name =admin and password=123	Should navigate to home page.	Navigate to home page.

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Test case no	02			
Form	Order detail form			
Functional specification	User enter order detail			
Test objective	To check whether the entered quantity, required date & time valid or invalid			

Test data	Quantity Required date (yyyy/mm/dd) Time (hh:mm)			
Step no	Steps	Data	Expected Results	Actual results
1	Enter quantity and submit button	Quantity=10	Should display message "Enter valid data"	Display message "Enter valid data"
2	Enter required date and time and submit button	Date =2011/10/15 Time=15:30 (after current date and time)	Should display message "Enter valid data"	Display message "Enter valid data"
3	Enter quantity required date and time and submit button	Quantity=2 Date =2010/10/15 Time=15:30 (before current date and time)	Should display message "Enter valid data"	Display message "Enter valid data"
4	Enter quantity required date and time and submit button	Quantity=2 Date ="" Time=15:30	Should display message "Enter valid data"	Display message "Enter valid data"
5	Enter quantity required date and time and submit button	Quantity=2 Date =2011/10/15 Time=""	Should display message "Enter valid data"	Display message "Enter valid data"
6	Enter quantity required date and time and submit	Quantity="" Date ="" Time=""	Should display message	Display message "Enter valid

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	button		"Enter valid data"	data"
7	Enter quantity required date and time and submit button	Quantity="" Date =2011/10/15 Time=15:30 (after current date and time)	Should display message "Enter valid data"	Display message "Enter valid data"
8	Enter quantity required date and time and submit button	Quantity=5 Date =2011/10/15 Time=15:30 (after current date and time)	Should navigate to table reservation page.	Navigate to table reservation page.

6.8 Summary

This Chapter discussed how the author carried out the critical evaluation of the prototype and the results were presented here with a multi faceted view. The project was reviewed in great detail while the evaluation was carried out. The next Chapter will discuss future enhancements proposed and other possible modifications to the system to improve its performance and functionality.

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