**Project: CALIFORNIA FITNESS AND YOGA ONLINE SYSTEM(FaYOS)**

|  |  |
| --- | --- |
| Project Title | California Fitness and Yoge Online System |
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| Time Unit | Days |
| Cost Unit | USD |

1. **SPECIFICATIONS:**
2. **Start day and End day:**

|  |  |
| --- | --- |
| Start day | 2/11/2016 |
| End day | 10/4/2017 |
| Budget | 66 000 USD |

1. **VISION AND SCOPE**

***2.1. Vision Statement***

For customers who want a training management system which is efficient, convenient and for employees who want to work easily and conveniently then Fitness and Yoga System (FaYOS) is a great system. Unlike other offline systems, FaYOS is an online system that helps create favorable conditions for the management of time and personnel. Customers can manage the schedule, get the latest news from the Centre and pay with just a few steps in everywhere that have Internet. Staff and coaches will also do things more conveniently because everything now is stored automatically.

***2.2. Major Features***

FE-1: Login and logout features.

FE-2: Manager the schedule for training and teaching

FE-3: Trainees can pay the fee online with different ways.

FE-4: Admin now can manager staff, trainers and trainees online.

FE-5: Trainees can manage their own account.

FE-6: Trainee now can register course online.

FE-7: Trainee will receive the latest news about schedule and fee changed over mail.

FE-8: Trainee can now give feedback right to the Admin.

FE-9: Trainee now will receive the ads form the system.

FE-10: Everyone can discuss everything in the forum.

FE-11: Admin can receive the statics about business status online at 24/7.

FE-12: Customer care.

***2.3. Assumptions and Dependencies***

AS-1: The Center must have the computers connected to the network, printers as well as to buy or rent a server from the vendor to make the system work.

AS-2: Any change in the schedule, courses, the fees as well as information incentives and advertising to be put up is the slowest system after 15 minutes.

AS-3: Must have at least 2 months of training for staff and trainer.

AS-3: Register with the Email System and the Bank to make the payments and send notifications via email.

DE-1: This system helps many Center save their time and money to manager the trainees. So FaYOS can attract investment of many Centers.

***2.4. Scope of Initial and Subsequent Releases***

|  |  |  |  |
| --- | --- | --- | --- |
| **Feature** | **Release 1** | **Release 2** | **Release 3** |
| FE-1 | Fully implemented |  |  |
| FE-2 | Fully implemented |  |  |
| FE-3 | Register for credit card and debit card payments only | Register for credit card, debit card payments as well as the E-wallet. |  |
| FE-4 | Fully implemented |  |  |
| FE-5 | Fully implemented |  |  |
| FE-6 | Fully implemented |  |  |
| FE-7 | Not implemented | Just get a general notice on the website | Get notified by email and the account’s webpage. |
| FE-8 | Not implemented | Not implemented | Fully implemented |
| FE-9 | Not implemented | Not implemented | Get notified by email and the account’s webpage. |
| FE-10 | Not implemented | Fully implemented |  |
| FE-11 | Not implemented | Fully implemented |  |
| FE-12 | Not implemented | Not implemented | Fully implemented |

1. ***Short decripstion***

Currently, many fitness and yoga centers was established but no management system or only the offline system, this causes problems for the management of students as well as academic schedules and issues related to fees, in addition to causing time-consuming is not highly effective for students. So the need to have a system of online 24/7 is very important to create the best conditions for our customers as well as the most effective management.

***4.List an actors***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Actor** | **Major Value** | **Attitudes** | **Major Interests** | **Constraints** |
| Center  Management | Improved employee productivity; cost savings for the Center | strong commitment through release 2; support for release  3 contingent on earlier results | cost savings must exceed development and usage costs | None identified |
| Staff | More efficient use of staff time throughout the day; higher customer satisfaction | Support but also worried about the technique. | Easy to use, saving time. | Training for staff in Internet usage needed |
| Trainer | More efficient use of time throughout the day; higher customer satisfaction | Support but also worried about the technique. | Easy to use, saving time. | Training for trainers in Internet usage needed |
| Trainee | Bring more effective workout. | Strongly support. | Easy to use, saving time, Bring more effective workout. | Training for trainee in Internet usage needed |

1. ***List of usecases***

|  |  |
| --- | --- |
| ID | US1 |
| Name | Personal account management |
| As a | Customer, staff, admin, trainer |
| I want | To manage my personal account. |
| So that | I can use my account easily and make sure that no one can access my account |

|  |  |
| --- | --- |
| ID | US2 |
| Name | Search |
| As a | Customer to have search function |
| I want | To have search function |
| So that | I can find something faster |

|  |  |
| --- | --- |
| ID | US3 |
| Name | Course fee |
| As a | Customer |
| I want | To see the course fee |
| So that | I can decide whether to take the course |

|  |  |
| --- | --- |
| ID | US4 |
| Name | Course register |
| As a | Customer |
| I want | To register the course online |
| So that | I can decide whether to take the course |

|  |  |
| --- | --- |
| ID | US5 |
| Name | Feed back |
| As a | Customer |
| I want | To feedback to the center |
| So that | I can sent my satisfied and dissatisfied to the center |

|  |  |
| --- | --- |
| ID | US6 |
| Name | Announcement |
| As a | Customer |
| I want | To receive the announcement from the center by email |
| So that | I can read the announcement every time I check mail |

|  |  |
| --- | --- |
| ID | US7 |
| Name | Forum |
| As a | Customer |
| I want | To have a forum for students |
| So that | I can exchange the experiment with other students |

|  |  |
| --- | --- |
| ID | US8 |
| Name | Customer care |
| As a | Customer |
| I want | To have care from the center |
| So that | The center staff can help me to solve my problem |

|  |  |
| --- | --- |
| ID | US9 |
| Name | Calendar management |
| As a (an) | Staff, admin, trainer |
| I want | To manage my calendar |
| So that | I can |

|  |  |
| --- | --- |
| ID | US10 |
| Name | Class management |
| As a | Staff |
| I want | To manage all classes |
| So that | I can know about the class status |

|  |  |
| --- | --- |
| ID | US11 |
| Name | Trainer management |
| As a (an) | Staff, admin |
| I want | To manage trainer |
| So that | I can know how the trainer work as well as add or delete trainer |

|  |  |
| --- | --- |
| ID | US12 |
| Name | Customer management |
| As a | Staff |
| I want | To manage customer |
| So that | I can take care the customer easier |

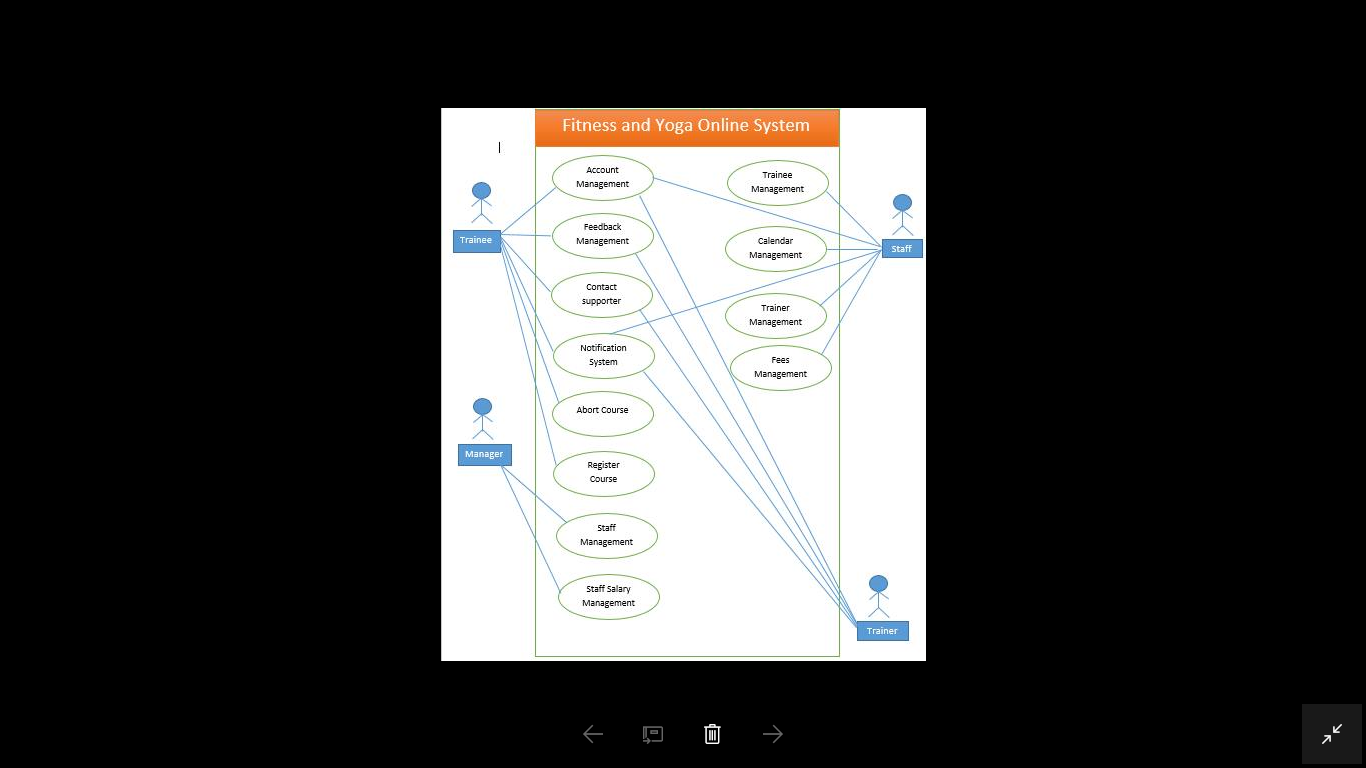
|  |  |
| --- | --- |
| ID | US13 |
| Name | Staff management |
| As an | Admin |
| I want | To manage my staff |
| So that | I can follow how they work |

|  |  |
| --- | --- |
| ID | US14 |
| Name | Fee management |
| As a | Staff |
| I want | To manage fee |
| So that | I can help customer with paying fee |

|  |  |
| --- | --- |
| ID | US15 |
| Name | Statistics |
| As an | Admin |
| I want | To statistic the center income |
| So that | I can know whether the center make high benefit or not |

|  |  |
| --- | --- |
| ID | US16 |
| Name | Advertising |
| As an | Admin |
| I want | To have advertisements on the center web |
| So that | Our partners can advertise their products |

1. ***Usecase diagram***



# *7.Context Diagram*

Login, log out. Add, update, delete their account . Add, edit, delete account of staffs. Add, update staff salary

Login, log out.Add, update the account. Contact suppoter. View the nofication. Feedback to manager

Login, log out. Add, update account of staff and trainees. View, add, update, delete the nofications. Add, update, delete the calendar

Staff

Trainee

Manager

Trainer

Login, log out,. Add, update, delete their account. Contact suppoter. View the nofication. Feedback to manager. Abort source. Register cource

# 

# 2. OVERALL DESCRIPTION

## *2.1. Product Perspective*

The California Fitness and Yoga system is a new system that replaces the current manual and register course at the center. The context diagram in Figure 1 illustrates the external entities and system interfaces for release 1.0. The system is expected to evolve two releases, ultimately connecting to credit and debit card authorization services.

## *2.2. User Classes and Characteristics*

**Trainee**

A Trainee is a Process Impact at the corporate campus at Da Nang, who wishes to register the course from the center. There are about 500 trainees, of which an estimated 400 are expected to use the FaYOS an average of 4 times per week. An estimated 90 percent of register will be register using the internet, with 10 percent of registers being register at the center. All trainee have internet access from wherever. Some trainees will wish to manage their calendar to manage their time.

**Staff**

The center currently employs about 20 Staff, who will receive registers from the FaYOS, take care of the trainee, and do the center's small jobs. Most of the center Staff will need to be trained in the use of the computer, the Web browser, and the FaYOS.

**The Administrator**

The Administrator is a center employee, perhaps the center manager, who is responsible for maintaining the center work and make it more widen. The Administrator can also manage the trainer and staff. The Administrator will need to edit the trainer and the staff of the center if there are any changes.

**The trainer**

the trainer of the system who will teach the trainee of the center can manage their calendar in the system. Most of the center trainers will need to be trained in the use of the computer, the Web browser, and the FaYOS

***2.3. Operating Environment***

OE-1: The FaYOS shall operate with the following Web browsers: Microsoft Internet Explorer versions 9.0 or later, Mozilla Firefox versions 10.0 or later, Opera versions 10.0 or later, Google Chrome and Safari.

OE-2: The FaYOS shall operate on a server running the current corporate approved versions of Red Hat Linux and Apache WebServer.

OE-3: The FaYOS shall permit user access from the internet

***2.4)*** ***Design and Implementation Constraints: reference to ConOps document***

***2.5) User Documentation: reference to ConOps document.***

## *2.6) Assumptions and Dependencies:* reference to ConOps document.

***3.SYSTEM FEATURE:***

***3.2: Add***

***3.2.1: Description and Priority***

* Staff can add student
* Priority: high

***3.2.2 Stimulus/Response Sequences:***

|  |  |
| --- | --- |
| Staff   * Login the system as the role of an staff * Select the “Add Student” button * Fill in information of a new student * Select “Save” button | System   * Check login success or not * Display Student Manage web * Display the add function web |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow the staff login system |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or staff login account no. The staff must sign in again |
| Request from system: Success Login | the system will show the central site |
| Function: add | the system will display the customer management. The system allows staff to be more customer list management |
| Request from system: Failed Add | The system will display error messages. The staff must enter the required information such as customer’s name, address ... |
| Request from system: Success Add | The system will display the message was more successful clients. This function allows employees to more customers at any time when the medium has more new students |

***3.3: Updated by Staff***

***3.3.1: Description and Priority***

* Staff can update the student’s information
* Priority: high

***3.3.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Staff   * Login the system as the role of an staff * Select the “Update Student” button * Search the student name * Edit the student * Select “Save” button | System   * Check login success or not * Display Student Manage web * Display the student information |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow the staff login system |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or staff login account no. The staff must sign in again |
| Request from system: Success Login | the system will show the central site |
| Function: update | The system will display the customer management. The system allows staff to be more customer list management |
| Search | Employees will find customers need editing via the search function. After the search is successful, proceed to edit, or delete customer |
| Request from system: Failed Update | The system will display error messages. The staff must enter the required information such as customer’s name, address ... |
| Request from system: Success Update | The system will display the message was edited successfully. This function allows employees to edit the information of customers are changing and deleting it when customers cancel classes |

***3.4: Statistics***

***3.4.1: Description and Priority***

* Admin can know how many students register this month, how many students cancel the course, statistics the course’s fee and the profit per month of the center
* Priority: high

***3.4.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Admin   * Login the system as the role of an admin * Select the “Statistics” button * Choose which he want to statistics | System   * Check login success or not * Display the statistics menu * Display the statistic web that show the information he want |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow the staff login |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or staff login account no. The staff must sign in again |
| Request from system: Success Login | the system will show the center management site |
| Function: Statistics | The system will display the center's statistics. Allow staff to view statistics about the number of students enrolled in the center, center amount collected in each month ... |

***3.5: Advertising***

***3.5.1: Description and Priority***

* Admin can add advertising on the system web
* Priority: high

***3.5.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Admin   * Login the system as the role of an admin * Select the “Add advertising” button * Drag and drop the advertisement that he want to add into the panel for advertisement * Click “Save” button | System   * Check login success or not * Display the system web that the admin can edit |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow staff login |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or staff login account no. The staff must sign in again |
| Request from system: Success Login | the system will show the center management site |
| Function: add Advertising | The system will display advertising management. Allow staff to view current promotional pages and add advertising to the site of the center. Employees can add advertising on anytime |
| Result | After updating advertising staff on site, the system will show more ad pages have just been added |

***3.6: Account management:***

***3.6.1: Description and Priority***

* User can edit and update their information.
* Priority: high

***3.6.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Customer   * User log in their account. * User click on “Feature Service”. * User click on “Account” * User can click on “Edit” to edit, insert, update information,… * User click “Save” then “OK” to complete. | System   * Check login success or not * The system switch to the “Account” page. * The system display their account information. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow customers login |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or user login account no. Customers must sign in again if you already have an account or register an account if you do not have an account |
| Request from system: Success Login | the system will show the central site |
| Function: update | The system will display the management of customer accounts. The system allows customers to edit personal information. |
| Request from system: Failed Edit | The system will display error messages edit information. Users must enter the required information such as name, address ... |
| Request from system: Success Login | The system will display the message was edited successfully |

***3.7: Course fee:***

***3.7.1: Description and Priority***

* Users can preview and pay tuition fees.
* Priority: high

***3.7.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Customer   * User log in their Account on the system. * User click on “Feature Service”. * User click on “Course”. * User select the courses for details of course fee. | System   * Check login success or not * The system switch to the “Course” page. * The system display the course fee. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow customers login |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or user login account no. Customers must sign in again if you already have an account or register an account if you do not have an account |
| Request from system: Success Login | the system will show the central site |
| Function: preview fee | The system will display all information about courses at the center. Users see information about fees at this site |
| Function: Pay fee | The system displays the page filing fees. Users select the form they want to pay. |
| Function: Pay fee - through banks | Customers select the form of payment. Customers enter the card number, bank name and select the payment button after entering. |
| Request from system: Failed payment | The system will display error messages. Customers need to enter all the information required to make a payment |
| Request from system: Success payment | The system will display the message was transferred successfully |

***3.8: Course Register:***

***3.8.1: Description and Priority***

* Users can become a member by register.
* Priority: high

***3.8.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Customer   * User log in their Account on the system. * User click on “Feature Service”. * User click on “Course”. * User select the courses which they want. * User click “Register” then “Ok” to complete. | System   * Check login success or not * The system switch to the “Course” page. * The system display the course in order to choose. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow customers login |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or user login account no. Customers must sign in again if you already have an account or register an account if you do not have an account |
| Request from system: Success Login | the system will show the central site |
| Function: course register – course preview | The system will display list courses at the center |
| Function: course register – course choose | Customers will see and choose the course they wish to study. The system displays detailed information of the course that the customer has chosen. |
| Function: course register – course register | Customers select the "Join" to register for the course. The system will display the registration page course, customers proceed to enter personal information and registration |
| Request from system: Failed Register | The system will display error messages. Users must enter the required information such as name, address ... |
| Request from system: Success Register | The system will display the message "You have successfully registered courses" |

***3.9 : Feedback:***

***3.9.1: Description and Priority***

* Users can feedback everything about system.
* Priority: high

***3.9.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Customer   * User log in their Account on the system. * User click on “Feed Back” on the left corner. * User click the box “title” to enter subject title of feed back * User click the box “Feed Back” to type the feedback in order to support and help the system managers well. * User click “Submit” to send feedback or “Cancel ” to return the home page. | System   * Check login success or not * The system switch to the “Feed Back” page. * The system display the box feedback in order to type your opinion. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow customers login |
| check | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login or user login account no. Customers must sign in again if you already have an account or register an account if you do not have an account |
| Request from system: Success Login | the system will show the central site |
| Function: feedback | The system will display the comment. Customers enter comments, suggestions of customers to the center and select "Submit" button if you want suggestions, or if you do not want to continue, then select "Cancel" to return to the page |
| Request from system: Success feedback | The system will display the message was sent successfully |

***3.10: Staff Management:***

***3.10.1: Description and Priority***

* The admin may insert, delete, edit staff’s information
* Priority: high

***3.10.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Admin   * Login the system as the role of an admin * Click on “Feature Service”. * Click on “Staff” * Click on “Edit” to edit, insert, update information,… * Click “Save” then “OK” to complete. | System   * Check login success or not * The system switch to the “Feature Service” page. * The system display the staff information. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow admin login |
| Check login | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login. Admin must sign in again |
| Request from system: Success Login | the system will show the center management site |
| Function: update | The system will display the staff management. Allows admin to manage center’s staff by add, edit, delete staff. |
| Function: update - add | If admin select "Add", the system will display a table that allows admin enter employee information to add to the list. After entering the data, the admin button "Add" to add it. If more successful, the system will update the list and reload the list. If the system fails, an error message (staff already has the list or enter the wrong information). If the administrator does not want to work, then select "Cancel" button to return to the page |
| Function: update - edit | Admin staff will find using the search function to edit. After successful search, the system will display the information of the employee. Admin button "Edit" and the system will retrieve the same information of the employee is out. Admin want to edit the information at any position, proceed to re-enter data in the item. Upon completion of data entry, then select the button "Edit" to update the information of employees. If the administrator does not want to work, then select "Cancel" button to return to the page |
| Function: update - delete | Admin staff will find using the search function to delete. After successful search, the admin select "Delete" button and the system made the announcement: "Are you sure you want to delete?". If admin select "Yes", the system will conduct employee deleted from the database. If "No", it will reload the page |

***3.11 : Calendar Management:***

***3.11.1: Description and Priority***

* Staff can view and edit the calendar.
* Priority: medium

***3.11.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Staff   * Login the system as the role of an staff * Click on “Feature Service”. * Click on “Calendar” * Click on “Edit” to edit, insert, update information,… * Click “Save” then “OK” to complete | System   * Check login success or not * The system switch to the “Feature Service” page. * The system display the calendar and schedule…. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow staff login |
| Check login | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login. Staff must sign in again |
| Request from system: Success Login | the system will show the center management site |
| Function: update | The system will display the Calendar Management. Allows staff to manage courses calendar by add, edit, delete. |
| Function: update - add | If employees choose "Add", the system will display allows employees enter data about the academic calendar of the course of time, class, trainer. After entering the data, the staff button "Add" to add it. If more successful, the system will update the calendar and reload the page. If the system fails, an error message (This class schedules are available). If the administrator does not want to work, then select "Cancel" button to return to the page |
| Function: update - edit | Staff will find calendar by using the search function to edit. After successful search, the system will display the information of the employee. Staff button "Edit" and the system will retrieve the same information of the calendar is out. Staff want to edit the information at any position, proceed to re-enter data in the item. Upon completion of data entry, then select the button "Edit" to update the information of calendar. If the administrator does not want to work, then select "Cancel" button to return to the page |
| Function: update - delete | staff will find calendar by using the search function to delete. After successful search, the staff select "Delete" button and the system made the announcement: "Are you sure you want to delete?". If employees choose "Yes", the system will proceed to delete it from the academic calendar database. If "No", it will reload the page |

***3.13 : Trainers Management***

***3.13.1: Description and Priority***

* Staff can manage trainers.
* Priority: high

***3.13.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Staff   * Login the system as the role of an staff * Click on “Feature Service”. * Click on “Trainers” * Click on “Edit” to edit, insert, update information,… * Click “Save” then “OK” to complete | System   * Check login success or not * The system switch to the “Feature Service” page. * The system display the list trainer and their information. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow staff login |
| Check login | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login. staff must sign in again |
| Request from system: Success Login | the system will show the center management site |
| Function: update | The system will display the trainers management. Allows staff to manage center’s trainers by add, edit, delete staff. |
| Function: update - add | If staff select "Add", the system will display a table that allows staff enter trainers information to add to the list. After entering the data, the staff button "Add" to add it. If more successful, the system will update the list and reload the list. If the system fails, an error message (a trainer already has the list or enter the wrong information). If the staff does not want to work, then select "Cancel" button to return to the page |
| Function: update - edit | staff will find using the search function to edit. After successful search, the system will display the information of the trainer. staff button "Edit" and the system will retrieve the same information of the trainer is out. staff want to edit the information at any position, proceed to re-enter data in the item. Upon completion of data entry, then select the button "Edit" to update the information of trainers. If the staff does not want to work, then select "Cancel" button to return to the page |
| Function: update - delete | staff will find using the search function to delete. After successful search, the admin select "Delete" button and the system made the announcement: "Are you sure you want to delete?". If staff select "Yes", the system will conduct trainer deleted from the database. If "No", it will reload the page |

***3.14: Customer Management:***

***3.14.1: Description and Priority***

* Admin can manage their customers.
* Priority: high

***3.14.2:Stimulus/Response Sequences***

|  |  |
| --- | --- |
| Staff   * Login the system as the role of an staff * Click on “Feature Service”. * Click on “Customers” * Click on “Edit” to edit, insert, update information,… * Click “Save” then “OK” to complete. | System   * Check login success or not * The system switch to the “Feature Service” page. * The system display the list customers and their information. |

**Functional Requirement:**

|  |  |
| --- | --- |
| Login | System allow staff login |
| Check login | System checking login success or not |
| Request from system: Failed Login | The system displays an error message due to incorrect login. staff must sign in again |
| Request from system: Success Login | the system will show the center management site |
| Function: update | The system will display the customer management. Allows staff to manage center’s customers by add, edit, delete customers. |
| Function: update - add | If staff select "Add", the system will display a table that allows staff enter customer information to add to the list. After entering the data, the staff button "Add" to add it. If more successful, the system will update the list and reload the list. If the system fails, an error message (customer already has the list or enter the wrong information). If the staff does not want to work, then select "Cancel" button to return to the page |
| Function: update - edit | staff will find using the search function to edit. After successful search, the system will display the information of the employee. staff button "Edit" and the system will retrieve the same information of the customer is out. staff want to edit the information at any position, proceed to re-enter data in the item. Upon completion of data entry, then select the button "Edit" to update the information of customers. If the staff does not want to work, then select "Cancel" button to return to the page |
| Function: update - delete | staff will find using the search function to delete. After successful search, the admin select "Delete" button and the system made the announcement: "Are you sure you want to delete?". If staff select "Yes", the system will conduct customer deleted from the database. If "No", it will reload the page |

# 4. JUSTIFICATION AND DESCRIPTION OF CHANGES

## *4.1. Justification of Changes*

According to the needs of customers and the advancement of technology nowaday, Saving time, effort and money of the business is important, so that the modernization of the work is necessary. So we would like to present a few comments:

|  |  |
| --- | --- |
| Limitations of the current system | The new system |
| System only satisfies the class register, pay tuition fees and other work by meeting directly in a narrow range. | The system is perform online operations with a wide range. |
| Register for classes and course takes a long time of staff and students because they have to find the available classes by the manually way. | Students and trainers can find available classes in the search function of the system by the quick and easy way. |
| Students and staff can not receive the notice and the change timely and convenient way. | Students and staff can receive notifications and the changes timely and quickly through email message system. |
| The advertisement for clubs only through the students, trainers and leaflets. | Club may advertise its brand through online websites, so that people can visit and learn more information about club. |
| Pay for the hiring of staff and the cost of papers is very large. | Registration for classes, find out information about club can through online, thus saving cost and time. |
| Managing staff, students and  other management work by traditional way are very complex and difficult. | The management work becomes simpler and easier. |
| The exchange of information between students with each other and with trainers very difficult. | Students and trainers can discuss, talk to each other through forum function with the online system. |
| There is not have a place for personal suggestions and opinions of students, trainers on issues of club. | Students can make their opinions about trainers, courses, classes and other ideas through position feedback. |

***4.2. Description of Desired Changes***

**Capability changes:**

- With the computer system and modern computer networks, the amount of the initial investment will be higher, but in return the good quality and after-sales is high and stable.

- The number of participants will increase requires the manager to have a quick management and create satisfaction for customers.

- With the new system we can meet the requirements for more customers, the operation becomes quick and easier, so saving a lot of money and time for everyone.

**System processing changes:**

* All work is carried out through computer systems.

**Interface changes:**

* Operating on web interface.
* Beautiful interface, easy to use for users.

**Personnel changes:**

* Staff, trainer must be trained how to use the system, and can help customers when needed.
* Manager must get information quickly, arrange schedule suitable for staff and have plan to train them to use the system fluently.
* Managers must be familiar with the new management through the system to achieve better efficiency.
* Customers need support system using a simple and understandable way.

**Environment changes:**

* Besides works by traditional craft people working through computer systems and computer networks.

**Operational changes:**

* Change management way of managers, approach courses and manage courses, how to pay for the courses, schedules and notification system and has many new features to support the management, staff, students, traner help the work easier and more efficient.

**Support changes:**

* Have the support system for the changes in the system: video, the items supported in system.

**5.OTHER NONFUNCTIONAL REQUIREMENT**

***5.1.Perfomance Requirement***

PE-1: In standard workload, the CPU usage shall be less than 50%, leaving

50% for background jobs.

PE-2: Production of a simple report shall take less than 20 seconds for 95%

of the cases.

PE-3: The System service shall have an availability of 950/1000 or 95%.

PE-4: System shall process a minimum of 8 transactions per second.

PE-5: The system shall accommodate 400 users during the peak usage time window of 8:00am to 9:00 am local time, with an estimated average session duration of 8 minutes.

PE-6: Responses to queries shall take no longer than 7 seconds to load onto the screen after the user submits the query.

PE-7: The system shall display confirmation messages to users within 5 seconds after the user submits information to the system.

***5.2.Safety Requirement***

SR-1: The system shall identify all of its client applications before

Allowing them to use its capabilities.

SR-2: The system allow customer enter wrong password in 5 times.

SR-3: At least 95% of intrusions shall be detected within 10 seconds.

SR-4: The violated system shall not permit any further operation unless

the operator guard is in place.

SR-5: The system should not longer operate in case of fire.

SR-6: The system should no longer operate if security attacks have

become obvious.

***5.2.Security Requirement***

SE-1: The access permissions for system data may only be changed

by the system’s data administrator.

‹ SE-2: All system data must be backed up every 24 hours and the

backup copies stored in a secure location which is not in the

same building as the system.

‹ SE-3: All external communications between the system’s data server

and clients must be encrypted.

***5.4. Software Quality Attributes***

Computer systems are used in many critical applications where a failure can have serious consequences (loss of lives or property). Developing systematic ways to relate the software quality attributes of a system to the system’s architecture provides a sound basis for making objective decisions about design trade-offs and enables engineers to make reasonably accurate predictions about a system’s attributes that are free from bias and hidden assumptions. The ultimate goal is the ability to quantitatively evaluate and trade off multiple software quality attributes to arrive at a better overall system.

# *6. SCENARIO*

# *7. SUMMARY OF IMPACTS*

## *7.1. Operational Impacts*

**-** Source of data on the form and content always be complete and up to date.

- Update the system time has kept pace with the needs of the user.

 - The words just to be search or activities just done will be saved in page

history with the arrangements from newest to oldest

- Stops working when system errors occur such as internet problem, network failure and disconnection. he system will switch to self-service and call demand.

## *7.2. Organizational Impacts*

• Addition or elimination of job positions:

4 short-term employment additions for Develop team as: 1 manager, 1 coder,

1 tester and 1 feedback analysis.

- 3 long-term employment additions for maintaining as: 1 web service

manager, two server manager.

• Training or Retraining users:

- Users will be reported on the new menu as well as promotions to customers via the internet or system internet or online marketing.

-All users must have one account in the vending system.

## *7.3. Impacts During Development*

Collection and base on evaluations of user, development and support retention what

optimizer and offer what necessary, need to have in after version.

**8.ANALYSIS OF THE PROPOSED SYSTEM.**

***8.1.Sumary of Improvements***

- Reduce wastage employee, paper, ink, time in the range of 50% within 6 months after the use the system.

- Scale: Apply the system in clubs for all staff , customers and facilities, used in parallel with traditional work with paper, then proceed to the complete replacement of the system online.

- Reduce club operating costs by 15% within 12 months following initial release.

- Increase average effective work time by 30 minutes per employee per day within 3 months following initial release.

- Increase the satisfaction of customer by 30% for the club and the system within 3 months after put the system into operation.

## *8.2. Disadvantages and Limitations*

**LI\_1**: The system needs more computer than now.

**LI\_2**: A few other Centers can apply similar systems lead to competition.

**LI\_3:** Staff aren’t get used to using the system.

**DI-1:** Loss of power or internet connection interruption will cause the stalled operation of the system.

**DI\_2:** It take along time to deploy the system.

**DI\_3:** Some hacker can attack the system because it’s online.