

Final Project Specification

Overview

This is the specification of the final project, it contains the detail functionalities of each website page and the basic requirement. If you implement additional feature besides this spec, you'll get bonus scores.

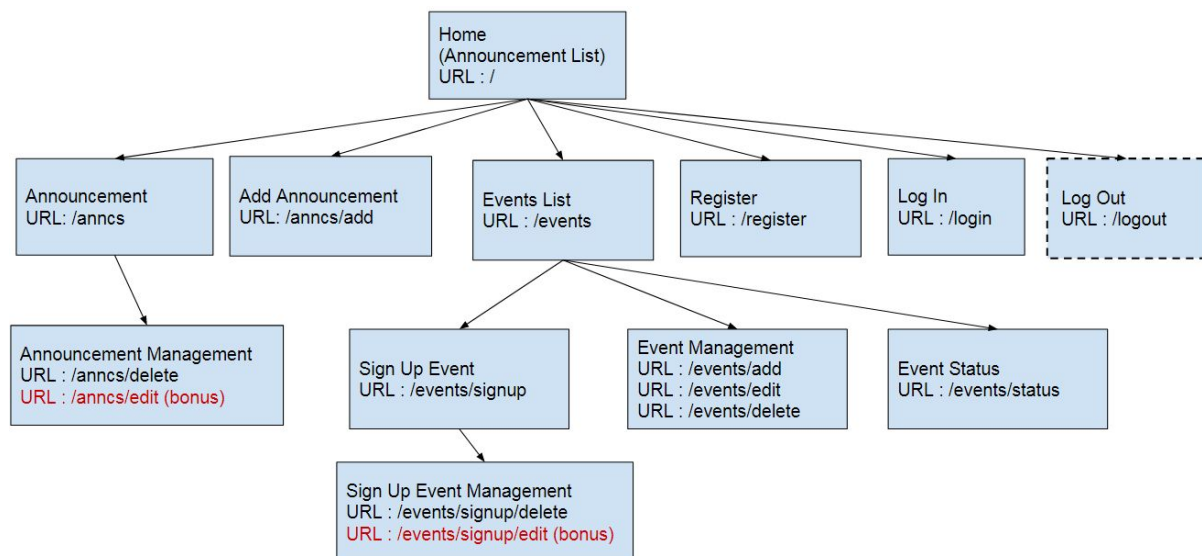
You need to design your own database schema, including tables and attributes in each table, TA won't provide you the sample of database design.

Environment

There are no constraints about the language and the OS which you use to implement this project, but the TA will provide the sample code by using PHP in future. If you choose the environment different from TA, we can't ensure that we can solve all the problems you encounter.

Website Structure

This is the website architecture of this project, which shows the links between pages. The details of each page will be described in below. You can design your own website with different structure and add some extra pages, but it must contains the basic functionality we describe in below.



Page Details

General rule : Normal user can't access the page for administrator only

- 首頁 Home (URL: /)



- It should be a navbar for every page in this website(project)
 - The navbar contains the following links:
 - 首頁 "Home" URL: /
 - 活動列表 "Events List" URL: /events
 - 註冊 "Register" URL: /register (When no user login)
 - 登入 "Log In" URL: /login (When no user login)
 - 登出 "Log Out" URL: /logout (After any user log in)
 - When the 登出 "Log Out" button is clicked, it should pop up a window to confirm the operation of log out
- The home page of this website should display the announcements list
 - The announcements should contains two fields,
 - 公告時間 "Posted Time"
 - 標題 "Title".
 - If the login user is administrator, each announcement should be provided a button named 刪除公告 "Delete Announcement" which connects to URL: /anncs/delete to Delete the announcement,
 - After the delete button is clicked it should pop up a window to confirm the delete operation
- There is a button named 新增公告 "New Announcement" which connects to URL: /anncs/add on top of the announcements list for creating new announcement when the login user is administrator(This button will not exist when the login user is not administrator)
- Each announcement will be clickable or provide a button named 詳細內容 "Detail" to connect to URL: /anncs, which will display entire content of the announcement.

- Bonus:
 - Provide a method to delete multiple announcements at a time

- 公告內容 **Announcement** (URL: /anncs)



- This page will display the detail of the announcement
- The announcement page contains three fields:
 - 標題 Title
 - 公告時間 Posted Time
 - 內容 Description
- You don't necessarily need to display the field names.
- The content will only allow text, you don't need to support image or other types of data
- Bonus:
 - Support displaying image in announcement content
 - Support markdown text
- 新增公告 **Add Announcement** (URL: /anncs/add)
 - This page is for administrator to add new announcement.
 - An announcement needs has two required fields:
 - 標題 "Title"
 - 內容 "Description"
 - There are two buttons below the required fields:
 - 發布 "Post"
 - 取消 "Cancel"
 - When the 發布 "Post" is clicked, it records the 公告時間 "Posted Time", then be stored into database and display on the home page.

- **修改公告 Edit Announcement (URL: /anncs/edit) (Bonus)**
 - This page is a bonus page. It provides the administrator to edit the content and title of the announcement.
 - The required fields is the same as **新增公告 Add Announcement**
 - There are two buttons below the required fields:
 - 儲存 "Save"
 - 取消 "Cancel"
 - When the 儲存 "Save" is clicked, the fields of the announcement will be stored into database.
- **刪除公告 Delete Announcement (URL: /anncs/delete)**
 - This will not be a page, the backend server just handle the delete operation through the request from this URL
 - No matter the delete operation is succeed or failed, it will redirect to home page(**URL: /**)
 - It should display some message for the result of delete operation
- **活動列表 Events List (URL: /events)**

Normal user view

Events		
<div>NCTU Sports</div> <div> 首頁 活動報名 註冊 登入 </div>		
活動列表		
項目	規則	報名
泡泡足球	像泡泡一樣的足球	報名
泡泡足球	像泡泡一樣的足球	報名
泡泡足球	像泡泡一樣的足球	報名
泡泡足球	像泡泡一樣的足球	報名

Admin view

NCTU Sports				
首頁 活動報名 報名狀況 Admin 登出				
活動列表				
新增活動				
項目	規則	報名	操作	
泡泡足球	像泡泡一樣的足球	報名	修改	報名狀況 移除
泡泡足球	像泡泡一樣的足球	報名	修改	報名狀況 移除
泡泡足球	像泡泡一樣的足球	報名	修改	報名狀況 移除
泡泡足球	像泡泡一樣的足球	報名	修改	報名狀況 移除

- This page display events for user to sign up
- Normal user
 - Each row of event exists a button named [報名](#) "Sign Up Event" which links to [URL: /events/signup](#) button
- Administrator
 - There is a button named [新增活動](#) "New Events" which is on top of events list and links to [URL: /events/add](#) to create new events
 - Each row of event should contains three buttons
 - [修改活動](#) "Edit Event" which links to [URL: /events/edit](#)
 - [刪除活動](#) "Delete Event" which links to [URL: /events/delete](#)
 - [報名狀況](#) "Event Status" which links to [URL: /events/status](#)
 - After the delete button is clicked it should pop up a window to confirm the delete operation
- Bonus:
 - Mark out the outdated events

- 新增活動 New Events (URL: /events/add)

The screenshot shows a web browser window with the title 'New Events'. The browser's address bar shows the URL '/events/add'. The page has a dark teal header with the text 'NCTU Sports' on the left and a navigation menu on the right with links: '首頁' (Home), '活動報名' (Event Registration), '報名狀況' (Registration Status), 'Admin', and '登出' (Logout). The '活動報名' link is underlined. The main content area is a white box with a light gray border. Inside, the title '新增活動' (Add New Event) is at the top. Below it are four text input fields, each with a label to its left: '活動名稱' (Event Name), '活動日期' (Event Date), '隊伍限制' (Team Limit), and '每隊人數限制' (Team Size Limit). At the bottom right of the form are two buttons: a green '發佈' (Post) button and a red '取消' (Cancel) button.

- This page is used to create a new event by administrator
- An event will has following fields to be filled
 - 活動名稱 “Event name”
 - 活動日期 “Date”
 - 隊伍限制 “Team Limit”
 - 每隊人數限制 “Team Size Limit”
- There are two buttons below the required fields:
 - 發佈 “Post”
 - 取消 “Cancel”
- When the 發佈 “Post” is clicked, the new event will be stored into database
- Bonus:
 - Add more features for the events, such as: limit number of male in a team (Need gender field when register)

- 修改活動 Edit event (URL: /events/edit)

The screenshot shows a web browser window with the title 'New Events'. The header bar is teal and contains the text 'NCTU Sports' on the left and navigation links '首頁', '活動報名', '報名狀況', 'Admin', and '登出' on the right. The '活動報名' link is underlined. The main content area is white and contains a form titled '修改活動'. The form has four input fields: '活動名稱' with the value '泡泡足球', '活動日期' with the value '2018/10/31', '隊伍限制' with the value '30', and '每隊人數限制' with the value '10'. At the bottom right of the form are two buttons: '儲存' (Save) in teal and '取消' (Cancel) in red.

- This page is used to edit the field of an existed event by administrator
 - The modifiable fields is similar to 新增活動 New Events
 - There are two buttons below the required fields:
 - 儲存 “Save”
 - 取消 “Cancel”
 - When the 儲存 “Save” is clicked, the fields of the events will be stored into database
- 刪除活動 Delete Event (URL: /events/delete)
 - This will not be a page, the backend server just handle the delete operation through the request from this URL
 - After the delete button is clicked it should pop up a window to confirm the delete operation
 - No matter the delete operation is succeed or failed, it will redirect to home page(URL: /events)
 - It should display some message for the result of delete operation
 - bonus :
 - The tables in the database have an attribute called ‘is_delete’. When a row is deleted, mark the attribute instead of removing the row. If some days someone deleted an important event without mind, we programmers might got a chance to recover it.

- 報名狀況 “Event Status” (URL: /events/status)

Status	
NCTU Sports	
首頁 活動報名 報名狀況 Admin 登出	
報名狀況	
泡泡足球	
隊伍名稱	隊伍成員
MHW Pro	0319901 上位雙刀 0319902 雷裝劍斧 0319903 老獾鞋臂 0319904 剛劇角
粉嫩水滴滴	0318801 水滴一號 0318802 水滴二號 0318803 水滴三號
旋轉泡泡球	
尚無人報名	

- A page where administrator can see the signed up teams and its member informations.
- Administrator
 - The information will at least has following fields.
 - 隊伍名稱 “Team name”
 - 學號 “students id”
 - 姓名 “student name”

- 報名 Sign Up Event (URL: /events/signup)

The screenshot shows the 'Sign up' page for an event titled '活動報名：泡泡足球' (Event Sign Up: Bubble Football). The page header includes 'NCTU Sports' and navigation links for '首頁', '活動報名', '註冊', and '登入'. The main content area displays event details: '每隊上限：10' (Max members per team: 10), '隊伍上限：20' (Max teams: 20), '已報名隊伍：3 隊' (Teams already signed up: 3), and '尚可報名：17 隊' (Teams still available for sign up: 17). Below this, there is a form for '隊伍名稱' (Team Name) with the value 'MHW Pro'. A table for '隊伍人員' (Team Members) shows one member with '隊員學號' (Member ID) '0513579' and '姓名' (Name) '葉聖強'. There are '修改' (Edit) and '取消' (Cancel) buttons for this member. At the bottom of the table is a '新增隊員' (Add Member) button. A '提交報名表' (Submit Sign Up Form) button is located at the bottom of the page.

- This page to sign up an event.
- The system need to check if the team limit of the event.
- Show message to remind user if their number of team members doesn't fit the constraint of the event
- Normal user
 - A sign up will at least has following fields to be filled
 - 隊員學號 “Student id” (members of the team)
 - Please design a standard procedure to avoid typo.
 - Eg: user enter the ‘student_id’, then the page will show the student’s name. If the user fill the wrong student id, he or she will find out a stranger’s name.
 - There are two buttons below the required fields:
 - 修改 “Sign up”
 - 取消 “Cancel”
 - When the 報名 “Sign up” is clicked, the new sign up list will be stored into database
 - bonus :
 - After the user forming a team and sign up an event. The system will send emails to all the team members.
 - The administrator can sign up for others and ignore any rules.
- 修改報名資訊 Edit Signed up information (URL : /events/signup/edit) (Bonus)
 - This page is used to edit an signed up event by owner or administrator
 - The fields could be modify is similar to 報名 Sign Up Event
 - Pre-fill the origin members information for the user to edit, but not just give an empty list for them

- Check team members limit
 - Avoid user fill the wrong student id
- There are two buttons below the required fields:
 - 修改 “Edit”
 - 取消 “Cancel”
- When the 修改 “Edit” is clicked, the new informations will be updated in database
- 取消報名 Cancel Signed up event (URL : /events/signup/delete)
 - This will not be a page, the backend server just handle the cancel operation through the request from this URL
 - After the cancel button is clicked it should pop up a window to confirm the cancel operation
 - No matter the cancel operation is succeed or failed, it will redirect to home page. (URL: /events)
 - It should display some message for the result of delete operation
- 註冊 Register (URL : /register)

- This page let user to register a new account.
- A registration will at least has following fields to be filled
 - 學號 “Student id” (as the account)
 - 信箱 “Email”
 - 密碼 “Password”
 - 確認密碼 “ConfirmPassword”
 - 驗證碼 “Captcha code”
 - Design your own method (tools or libraries are allowed)
 - eg: User need to answer a simple random math question. (eg : 3 + 2 = ?)
- There are two buttons below the required fields:

- 註冊 “Regist”
- 取消 “Cancel”
- When the 註冊 “Regist” is clicked, the new registration will be stored into database
- After registration the web page will redirect to home page (URL: /)
- bonus :
 - Design a authenticate procedure. For example :
 - After the user send the registration information, the system auto generate a random string and send a email to the user. Then the web page require the user to fill the string which the system had already sent.
 - After the user send the registration information, the system auto generate an unique url link for user to verify.
- 登入 Log In (URL : /login)

- Using the page the user can get a authentication which allow them to use several functions in the platform.
- The login page will at least has following fields to be filled
 - 學號 “Student id” (as the account)
 - 密碼 “Password”
- The account and the password must be encrypted.
 - We strongly recommended you add salt before encrypt the information.
 - If you are not professional, don’t use self designed encrypt method.
 - You can use some libraries or tools to finish this part, but you need to understand the login procedure.
- bonus :
 - The passwords in the database should be hashed. After the back-end server receive the hashed password, it will compare with the hashing

value in the database. In other words, we programmers will never know user's passwords. All we know is the user's passwords hashing value, which means some days even hackers break into the database, they won't get the user's passwords directly.

- 登出 Log Out (URL : /logout)
 - A button to logout.
 - After user logout, the web will redirect to home page. (URL: /)

Bonus

Besides the bonus we mentioned above, there exists some room to improve this website, such as enabling administrator to add & modify team member, or generating the game schedules. The security issues are very important. Although they were not be mentioned in the spec requirement, we encourage you to implement some prevention of security vulnerability, such as SQL injection and XSS.

Hint

If you choose PHP as your programming language, you can use the tools below:

Windows: WAMP (Windows + Apache + MySQL + PHP)

[download page](#)

Linux: LAMP

[download page](#)

Mac: MAMP

[download page](#)

Hint: You can also use "phpMyAdmin" to facilitate your works.

Evaluation:

We will evaluate your project by the demonstration and the submission

Demo:

Time : 2018/7/2~2018/7/4

(If you wish to demo earlier, email to TAs first to arrange the date)

You need to demonstrate all the functionalities you implemented

Submission:

- The deadline of submission is at 2018/6/29 23:59
- Report
 - The website structure graph like the TA's.
 - The basic information of your project, including the programming, language, the framework and the operating system...etc.
 - The schema of your database.
 - List the functionalities of your website

- Provide some fancy screenshots will be better.
- The contribution of each member in this project
- Source code

Discussion

We have HackMD for you to ask questions, TA will answer them as soon as possible.

Link: https://hackmd.io/s/H17T_QY9f

Please do not use E3 platform to send email to TAs, send to the following emails directly.

- 蘇炳立 g4691821@gmail.com
- 王威斌 icecat2012@gmail.com
- 吳意凡 yfancc20.cs03@g2.nctu.edu.tw

Remark

- The zip file's filename format: "Final_xxxxxx.zip", where xxxxxx is your Group ID.
- The penalty for incorrectly formatted submission is 10%.
- The project will not be accepted after the deadline.
- Plagiarism is not allowed, you will get 0 score when we found that happened.