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.

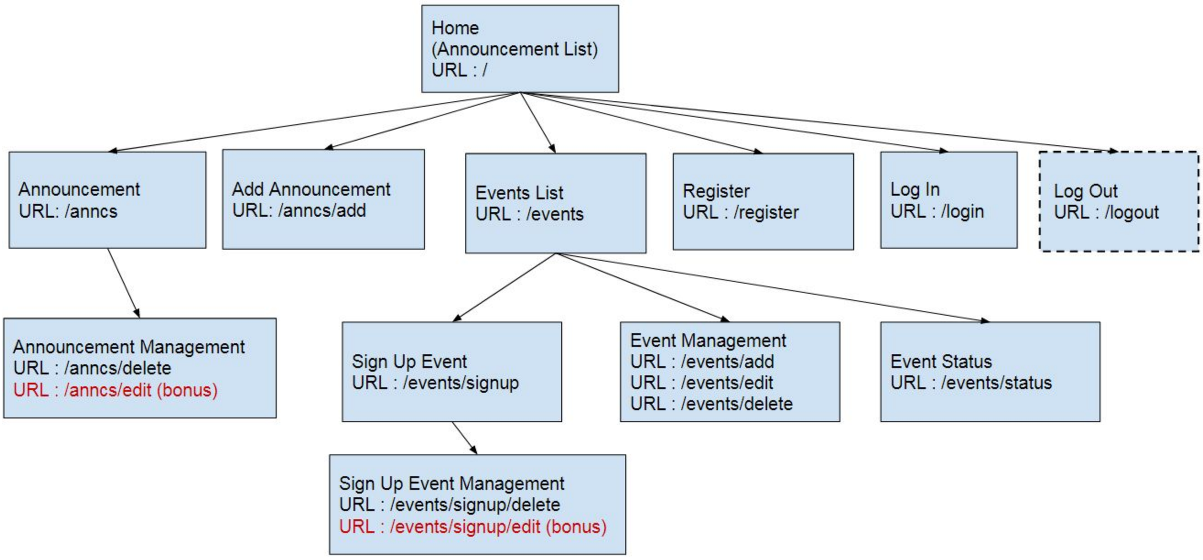
You need to design your own database schema, including tables and attributes in each table, TA won't provide you the sample of database design.

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

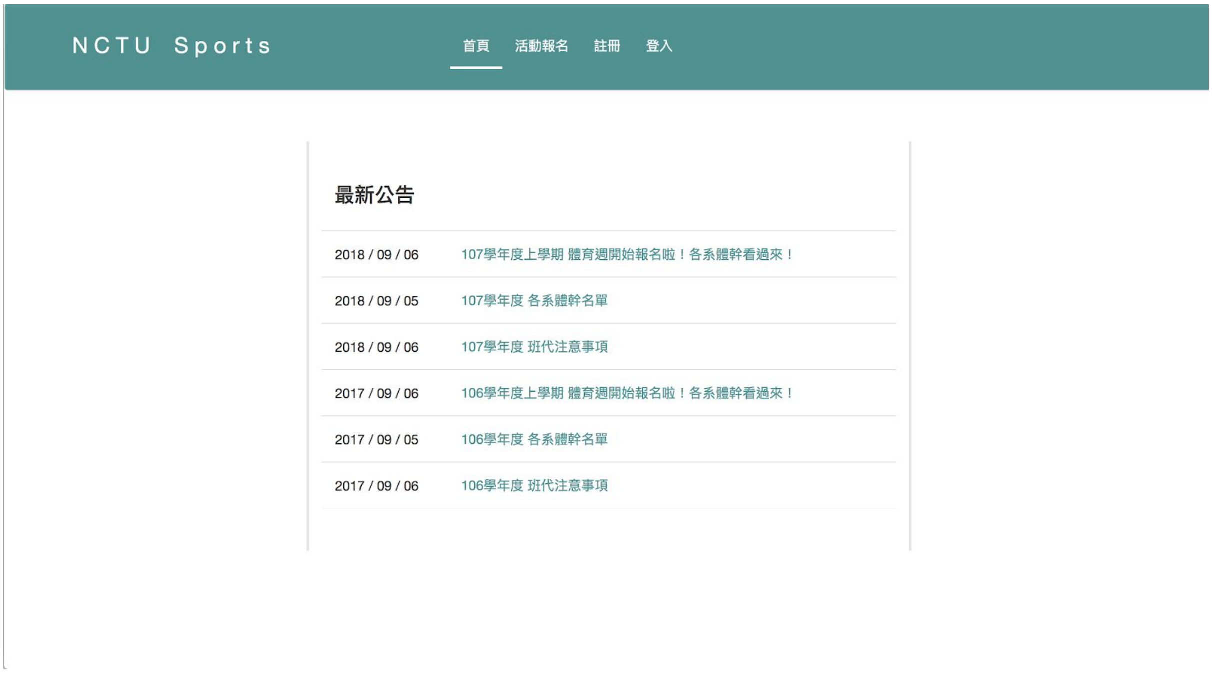
This is the website architecture of this project, which shows the links between pages. The details of each page will be described in below. You can design your own website with different structure and add some extra pages, but it must contains the basic functionality we describe in below.



Page Details

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

- 首頁 Home (URL: /)



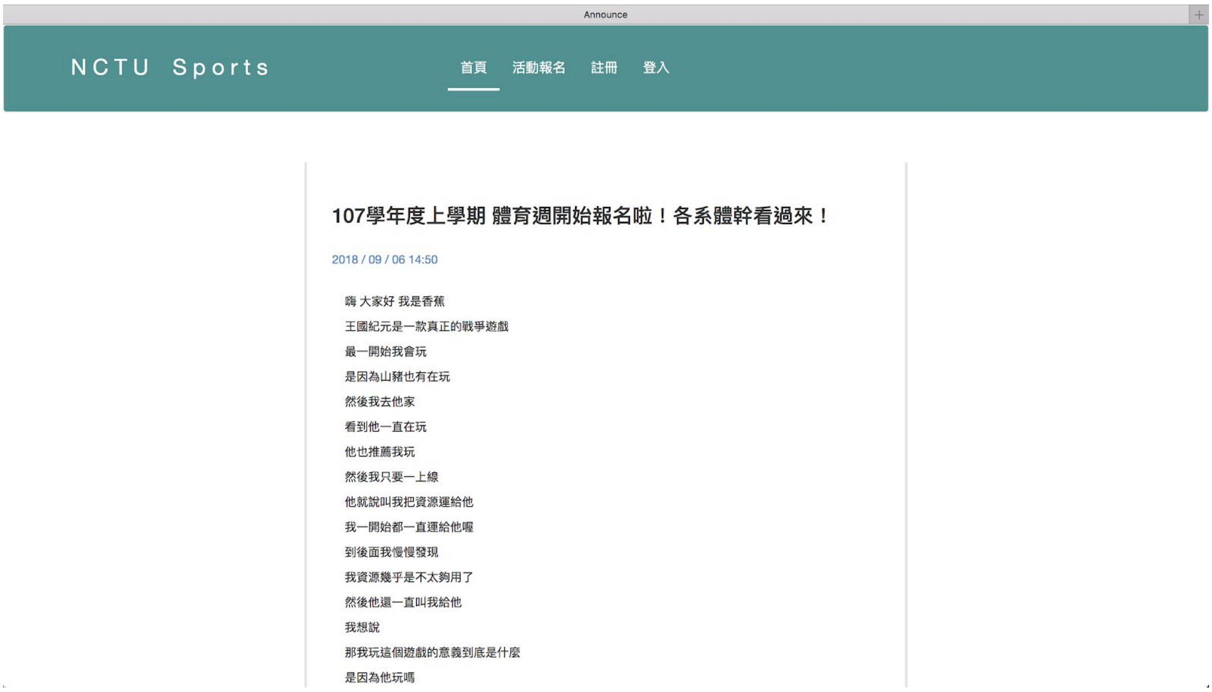
最新公告

2018 / 09 / 06	107學年度上學期 體育週開始報名啦！各系體幹看過來！
2018 / 09 / 05	107學年度 各系體幹名單
2018 / 09 / 06	107學年度 班代注意事項
2017 / 09 / 06	106學年度上學期 體育週開始報名啦！各系體幹看過來！
2017 / 09 / 05	106學年度 各系體幹名單
2017 / 09 / 06	106學年度 班代注意事項

- ○ 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 Annoucement (URL: /anncs)



107學年度上學期 體育週開始報名啦！各系體幹看過來！

2018 / 09 / 06 14:50

嗨 大家好 我是香蕉
王國紀元是一款真正的戰爭遊戲
最一開始我會玩
是因為山豬也有在玩
然後我去他家
看到他一直在玩
他也推薦我玩
然後我只要一上線
他就說叫我把資源運給他
我一開始都一直運給他喔
到後面我慢慢發現
我資源幾乎是不太夠用了
然後他還一直叫我給他
我想說
那我玩這個遊戲的意義到底是什麼
是因為他玩嗎

  - 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

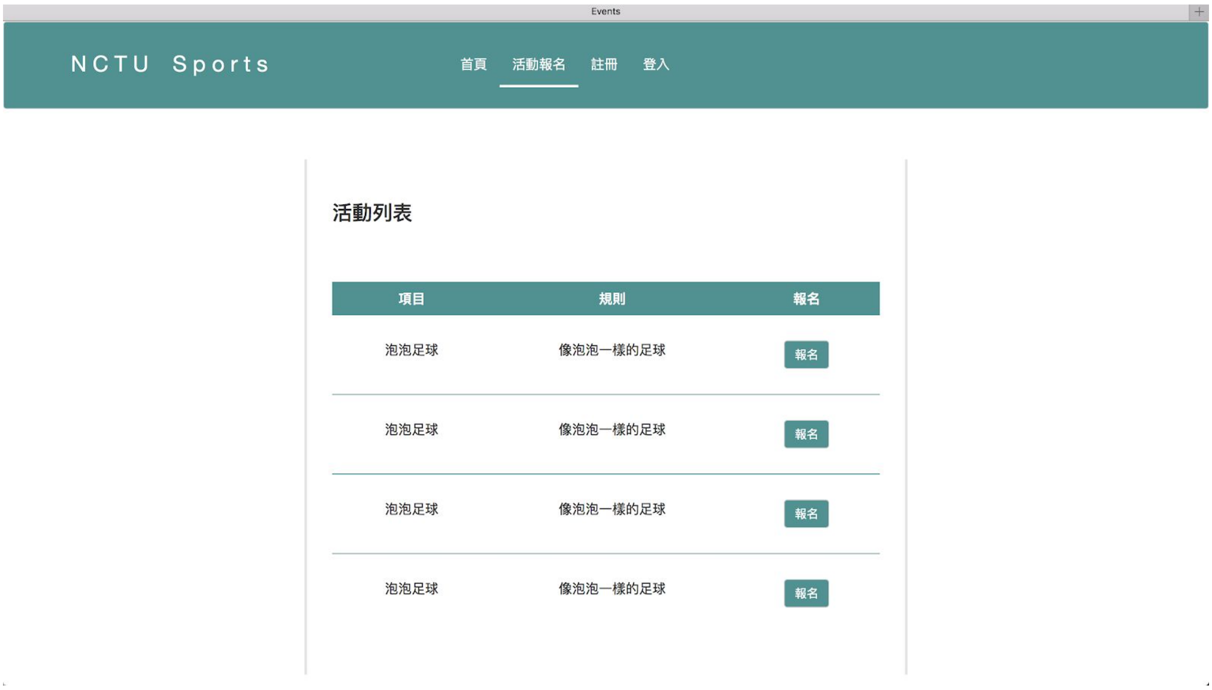
- 新增公告 Add Annoucement (URL: /anncs/add)
  - This page is for administrator to add new announcement.
  - An announcement needs has two required fields:
    - 標題 “Title”
    - 內容 “Description”
  - There are two buttons below the required fields:
    - 發布 “Post”
    - 取消 “Cancel”
  - When the 發布 “Post” 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 Annoucement (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 Annoucement
  - 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 Annoucement (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)

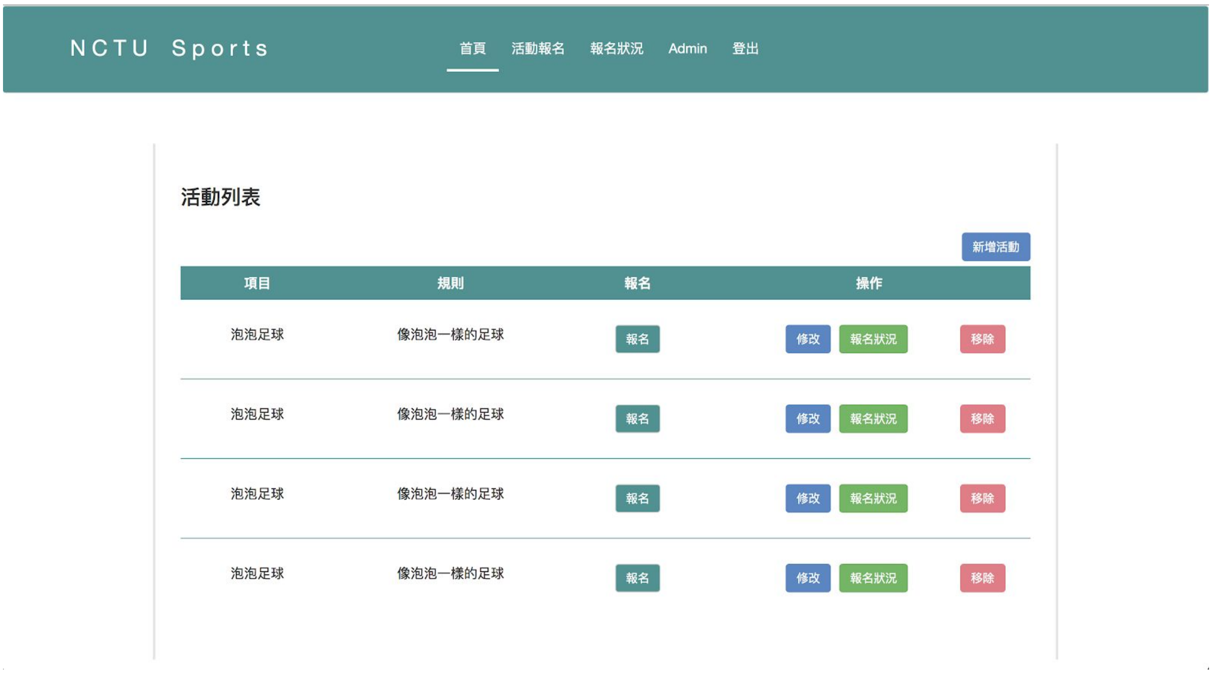
Normal user view



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

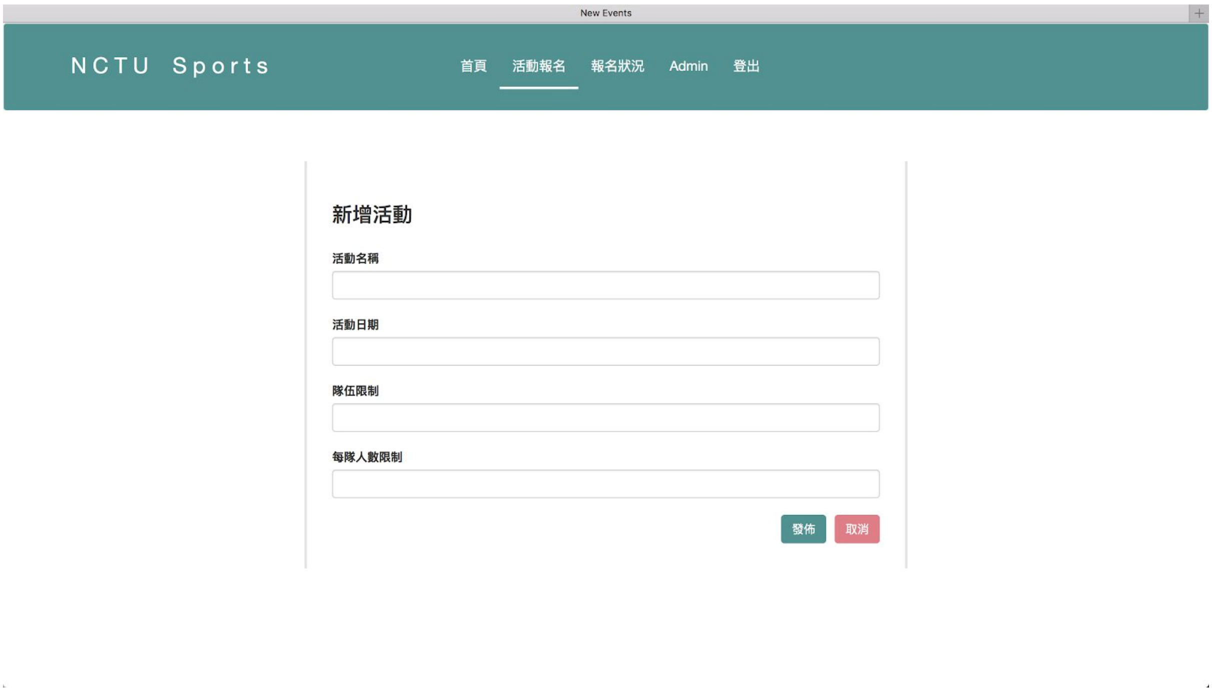


活動列表

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)



新增活動

活動名稱

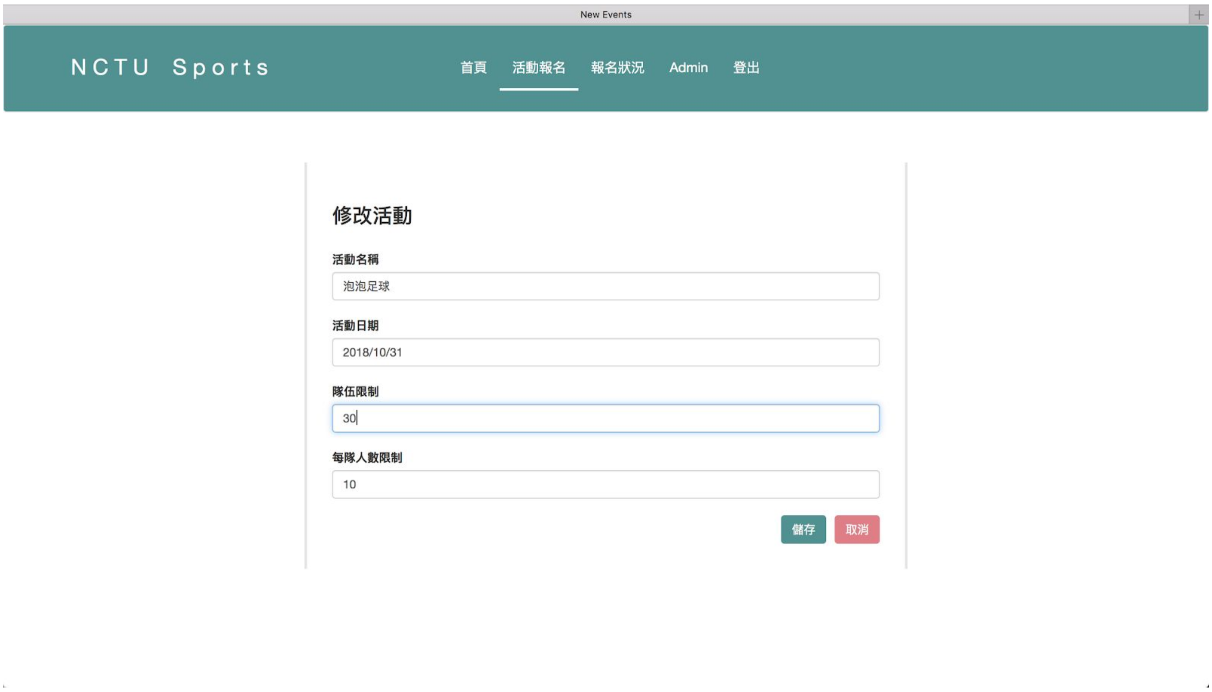
活動日期

隊伍限制

每隊人數限制

  - 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:
    - 發布 “Post”
    - 取消 “Cancel”
  - When the 發布 “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)



修改活動

活動名稱: 泡泡足球

活動日期: 2018/10/31

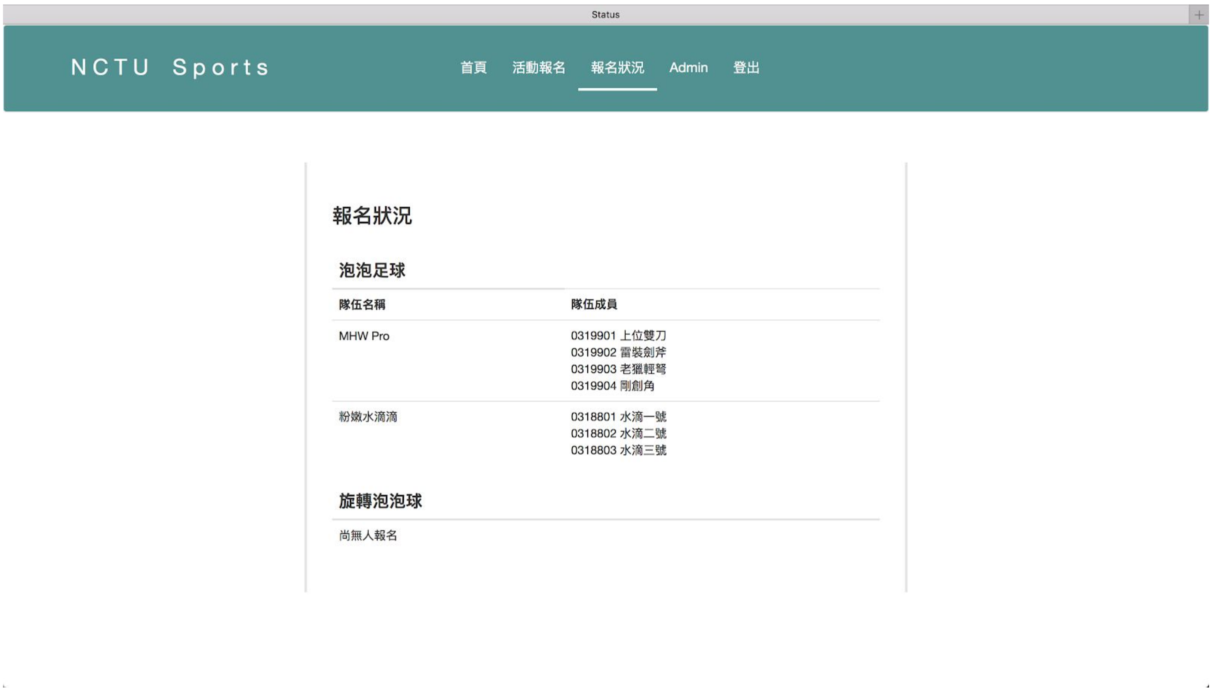
隊伍限制: 30

每隊人數限制: 10

  - 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)



報名狀況

泡泡足球

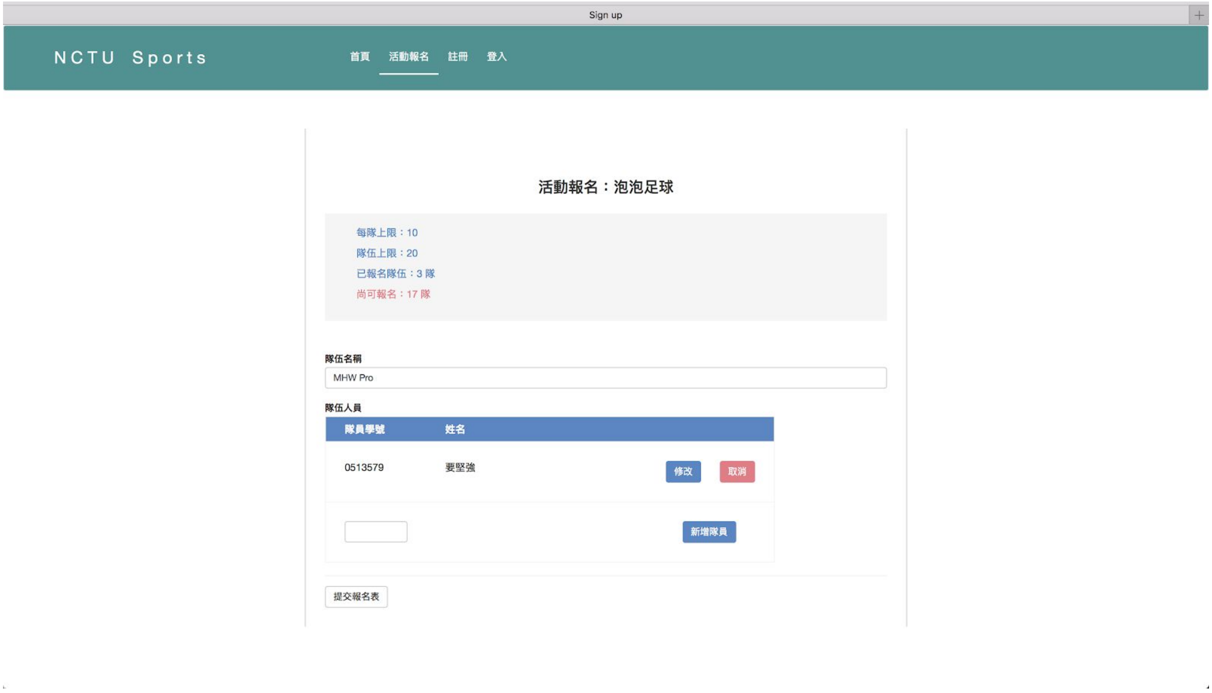
隊伍名稱	隊伍成員
MHW Pro	0319901 上位雙刀 0319902 雷裝劍斧 0319903 老獵輕弩 0319904 剛創角
粉嫩水滴滴	0318801 水滴一號 0318802 水滴二號 0318803 水滴三號

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)



活動報名：泡泡足球

每隊上限：10
隊伍上限：20
已報名隊伍：3 隊
尚可報名：17 隊

隊伍名稱
MHW Pro

隊伍人員

隊員學號	姓名		
0513579	要堅強	修改	取消
		新增隊員	

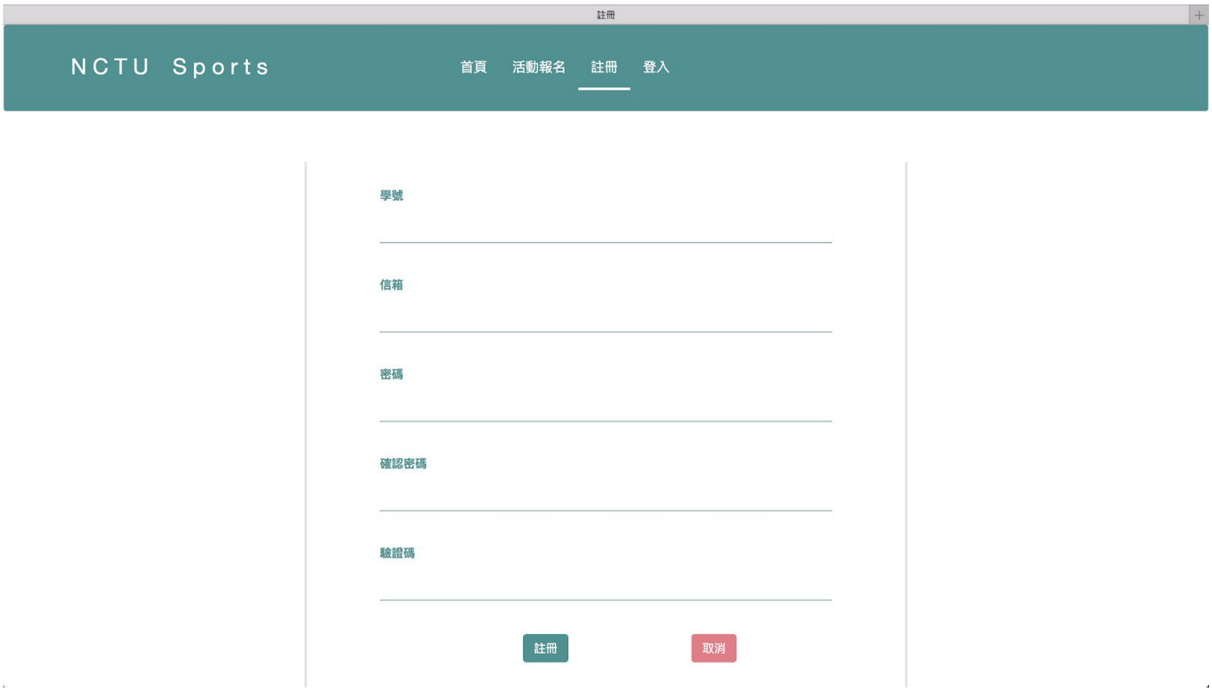
  - This page to sign up an event.
  - The system need to check if the team limit of the event.
  - Show message to remind user if their number of team members doesn’t fit the constraint of the event
  - Normal user
    - A sign up will at least has following fields to be filled
      - 隊員學號 “Student id” (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

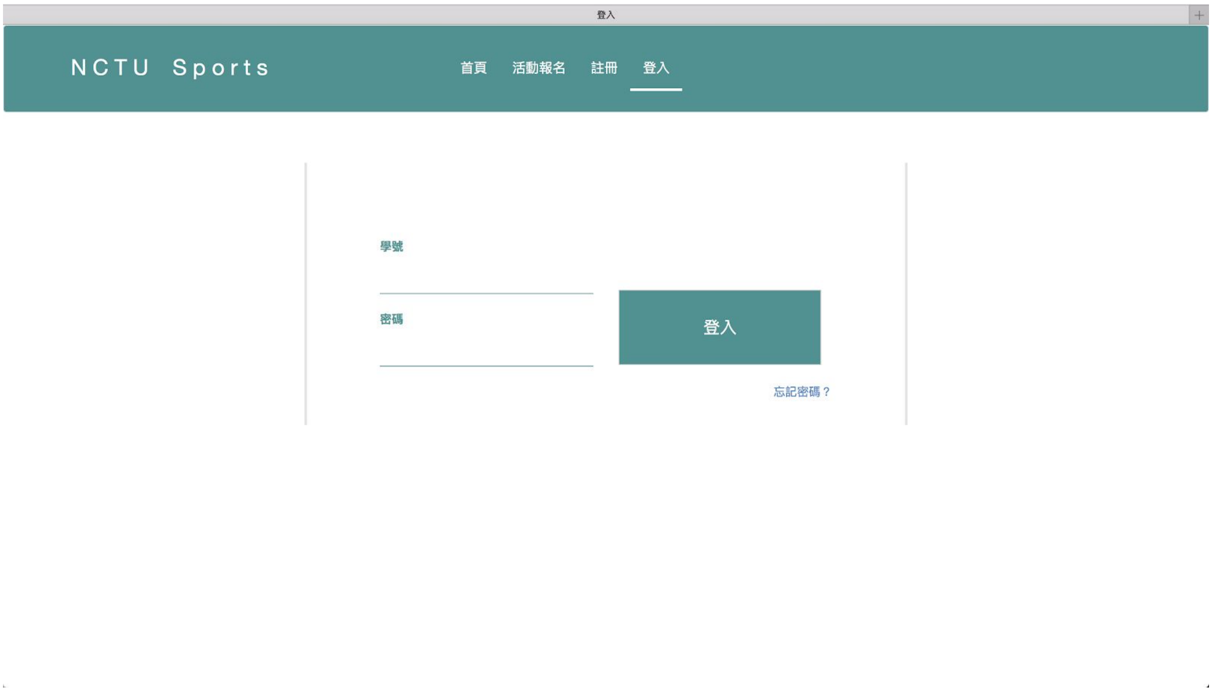
- 註冊 Register (URL : /register)



    - 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 + MyQL + PHP)
download page
Linux: LAMP
download page
Mac: MAMP
download page

Hint: You can also use "phpMyAdmin" to facilate 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.**