



Gym Web App

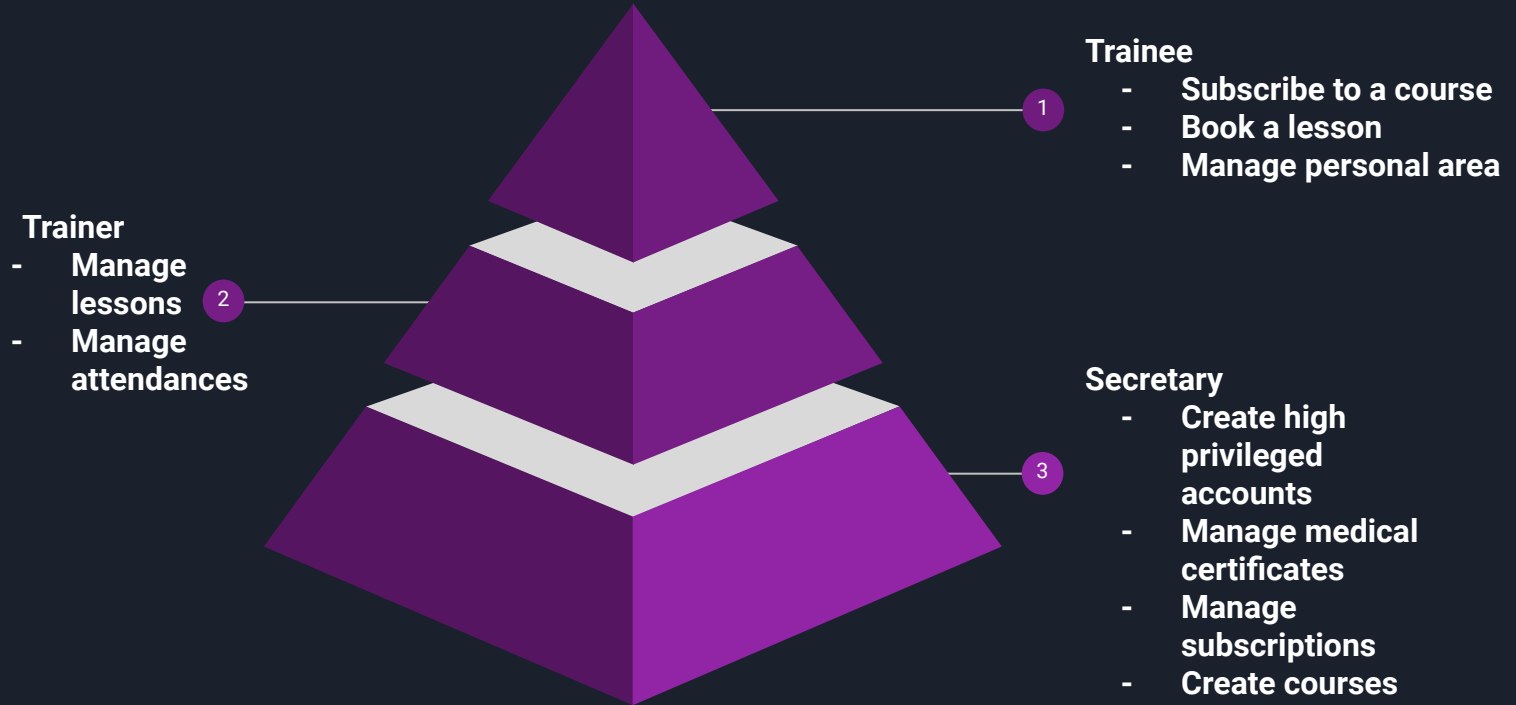


Objective: develop a Web Application used to manage a gym

Advantages of such a system for the business:

- Digitalize and centralize information
- Automatization of tasks that could lead to various errors and problems if “handmade”
- Better way of keeping track of presences rather than doing it on... Excel Sheets 😅

# Core Functionalities and Privileges



# Filters

Public pages:

Home

The Gym

Courses

Calendar

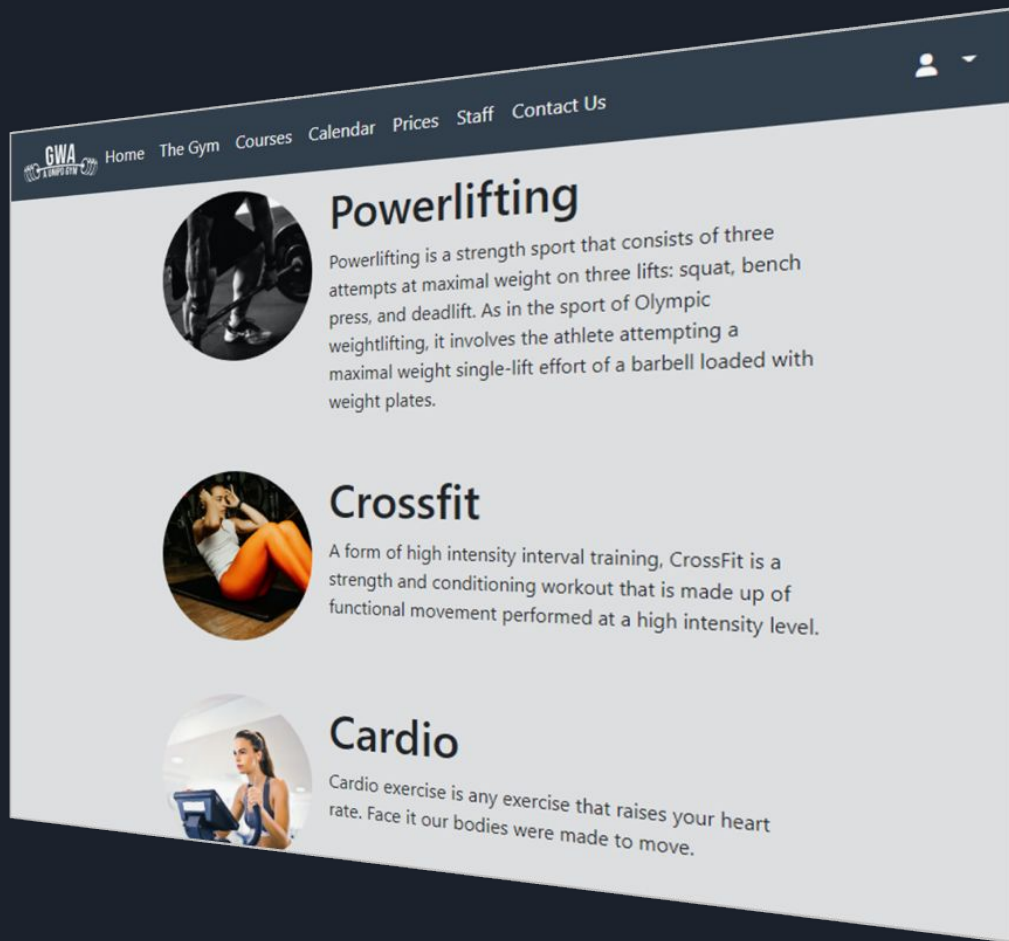
Prices

Staff

Contact Us

Login ...

Don't need any filtering



# Filters

To access:

Secretary Area  
Trainer Area  
Trainee Area

We need to know if the user is

- 1) AUTHENTICATED
- 2) AUTHORIZED

**GWA** Home My Profile Attendance Personal Info

## Courses you teach

#	Course Name	Number of Trainees	Lesson n°
1	Bodybuilding_5	1	27/55
2	Powerlifting_2	0	3/7

May 9 – 15, 2022

	Mon 5/9	Tue 5/10	Wed 5/11	Thu 5/12	Fri 5/13	Sat 5/14	Sun 5/15
06:00							
07:00							
08:00							
09:00							
10:00	10:00 - 12:00 Bodybuilding				10:00 - 12:00 Bodybuilding	10:00 - 12:00 Bodybuilding	



# Filters

## FILTER CHAINING

AUTHENTICATION

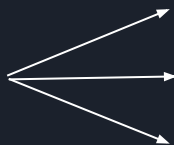


AUTHORIZATION



ACCESS  
GARANTED

RestrictedAreaFilter



SecretaryFilter



SecretaryArea

TrainerFilter



TrainerArea

TraineeFilter



TraineeArea

# Trainee functionalities



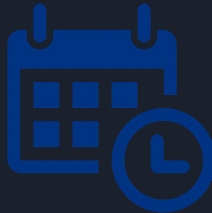
Buy a subscription in secretariat

Trainee



Enjoy his training

Reserve a lecture time slot



Delete a lecture time slot

# Trainee home page

May 9 – 15, 2022

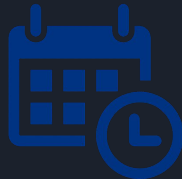
	Mon 5/9	Tue 5/10	Wed 5/11	Thu 5/12	Fri 5/13	Sat 5/14	Sun 5/15
05:00							
06:00							
07:00							
08:00							
09:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00	<b>CALISTHENICS</b> Slots: 12 Room: Strength						
19:00			<b>CALISTHENICS</b> Slots: 14 Room: Strength				
20:00							

**Confirm reservation**

Course name: Calisthenics  
Date: 2022-05-11  
Start time: 18:00:00  
Room name: Strength

Save reservation Close

Reserve a lecture time slot



May 9 – 15, 2022

	Mon 5/9	Tue 5/10	Wed 5/11	Thu 5/12	Fri 5/13	Sat 5/14	Sun 5/15
05:00							
06:00							
07:00							
08:00							
09:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00	<b>CALISTHENICS</b> Slots: 12 Room: Strength						
19:00							
20:00							

**Delete reservation**

Course name: Calisthenics  
Date: 2022-05-11  
Start time: 18:00:00  
Room name: Strength

Delete reservation Close

Delete a lecture time slot







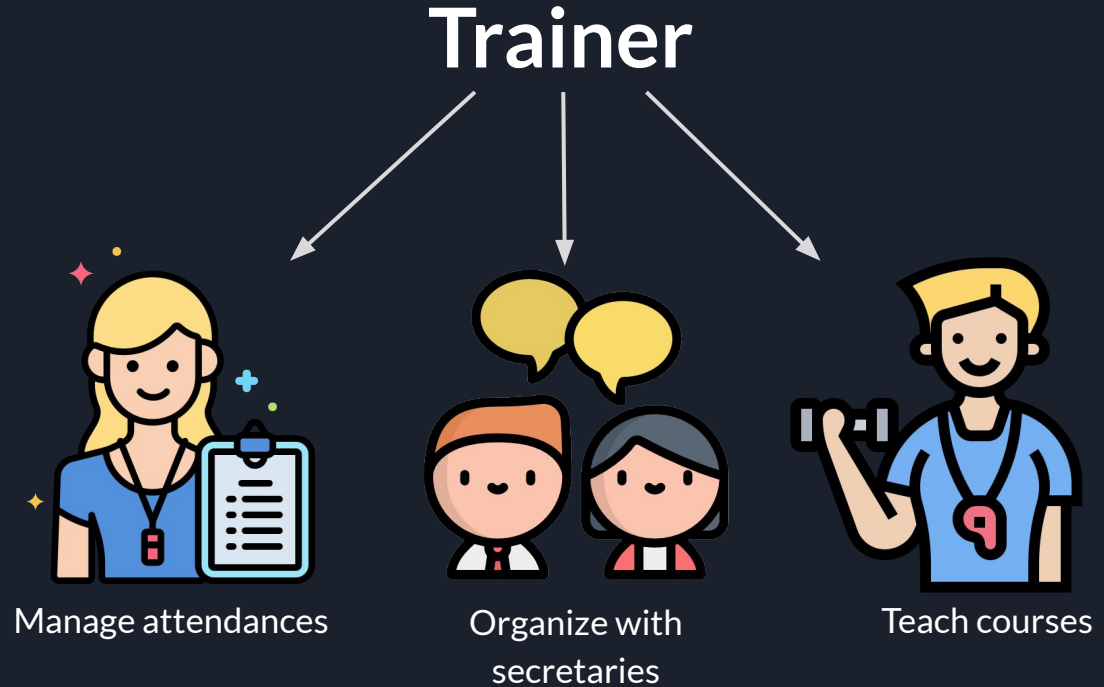
# Trainee back-end

Rest API	METHOD	DAO
/trainee/rest/available/from-date/{date}/to-date/{date}	GET	GetLectureTimeSlotsAvailableForUserByWeekDatabase
/trainee/rest/reservation/from-date/{date}/to-date/{date}	GET	GetListReservationByEmailAndDateDatabase
/trainee/rest/reservation	POST	InsertReservationDatabase
/trainee/rest/reservation/room/{room}/date/{date}/starttime/{time}	DELETE	DeleteReservationDatabase

# Trainer: tasks

A trainer has to:

- **Teach** his/her courses
- **Remove attendances** from users who booked their attendance for a lecture but they are not present
- **Add attendances** for users that did not book their attendance for a lecture if there are enough slots available in the given room
- **Organize** his/her lectures with the secretaries (e.g. if sick, communicate to postpone/delete a lecture)



# Trainer: home

Once logged-in, a trainer can:

- Access his/her personal info
- View the status of the courses he/she teaches
- Access to the attendances-management section

The screenshot displays the 'Trainer: home' interface. At the top, a navigation bar includes links for 'Home', 'My Profile', 'Attendance', and 'Personal Info'. Below this, the section 'Courses you teach' features a table with the following data:

#	Course Name	Number of Trainees	Lesson n°
1	Bodybuilding_5	2	24/50

Below the table, the date 'May 9 - 15, 2022' is centered, with navigation arrows on the right. A weekly schedule grid follows, with columns for each day from Monday to Sunday. The time slots on the left range from 06:00 to 11:00. The grid shows that on Saturday (5/14) and Sunday (5/15), the 10:00 - 12:00 slot is highlighted in yellow. On Monday (5/9), Thursday (5/12), and Friday (5/13), the 10:00 - 12:00 slot is occupied by a purple block labeled 'Bodybuilding'.

# Trainer: manage attendances

Managing attendances is possible when a lecture of a course taught by the trainer has already started.

At this point the trainer can:

- **Remove attendances** of users not present at the lecture
- **Add attendances** of users subscribed to the course but who have not booked their presence

This is done in order to detect and manage presences to prevent COVID issues.

The screenshot shows a web application interface for managing attendances. At the top, there is a navigation bar with links: Home, My Profile, Attendance, and Personal Info. The main content area displays the following information:

- Lecture:** Bodybuilding 5
- Details:** Power 2022-05-14 10:00:00

Below this, there are two sections for managing attendance:

**Present**

Search:

Name	Surname	EMAIL	Action
Alonzo	Lindgren	alonzo.lindgren@example.com	<a href="#">REMOVE</a>

**Absent**

Search:

Name	Surname	EMAIL	Action
Dorris	Trantow	dorris.trantow@example.com	<a href="#">Add</a>

# Secretary: managing lectures

**May 9 15, 2022**

Actions

Course name: Yoga

Date: 2022-05-13

Start time: 20:00:00

Room name: Stamina

Notify substitution

Change schedule

Delete this lecture

Close

20:00 - 22:00  
Yoga

20:00 - 22:00  
Yoga

When an event of the calendar is clicked a modal will appear.

Inside the modal a user with role secretary can perform the following actions:

- Notify substitution of the trainer
- Change the schedule for the class
- Delete the class

# Secretary: notification of changes in the schedule

Change schedule

Specify a new start time

18:00

Specify a new date

22/05/2022

Specify a new room

Power

Change schedule

Close

When the schedule of a class is changed all the users that enrolled for it will be notified by email.

The change of the schedule is implemented with an AJAX.

After the re schedule of the class the calendar will update itself with another AJAX call.

# Secretary: notification of trainer's substitution

### Notify substitution

Select a substitute

Giacomo Forza

Extra info

Dear users, due to some changes in the schedule the instructor for this class today is our trainer Giacomo.

Notify substitution

Close

The implementation of the substitution procedure is done similarly to the one seen before.

In the text area labelled by extra info some additional details can be given about the motivation of the substitution.

If some details are provided, these are going to be included in the email message sent to all the enrolled users


# CREATE A NEW ACCOUNT



Tax Code :

First Name :

Last Name :

Birth Date :  

Address :

Telephone Number :

Avatar (Optional) :

Email :

Role : ☐ Trainee ☐ Trainer ☐ Secretary

Trainee users can sign up to GWA on their own, following the *Register* link in the homepage.

On the contrary, trainer and secretary users must be created by an authenticated and authorized secretary user.

Personal and contact information is needed to create an account. An avatar image can be uploaded, but that's not mandatory.


A random password is generated for the new account, and the new user is going to receive an email containing a link to set his/her password.



# MANAGE MEDICAL CERTIFICATES



First, a secretary user checks the validity of a medical certificate for a user, then scans it, and finally uploads it to GWA. The file provided must be in pdf format and its size must be below 5 MB.

Email :	<input type="text" value="Enter Email"/>
Expiration Date :	<input type="text" value="gg/mm/aaaa"/> 
Doctor Name :	<input type="text" value="Enter Doctor Name"/>
Medical Certificate:	<input type="text" value="Choose File"/> <input type="button" value="Browse"/>
<input type="button" value="Add Certificate"/>	

# MANAGE SUBSCRIPTIONS



- Subscriptions are managed through the user Secretary
- We have 5 types of Subscriptions possible, for a given Course Edition : Free/ 7 Days Trial, Monthly, Quarterly, Half-Yearly and Yearly.
- A Trainee User can only try a Course once, whatever the edition
- Payments are managed on secretariat
- To specify a new Subscription a Secretary User needs to :
  - Choose the email for a certain User
  - Choose The Correct courseEdition for a User

Some important controls were done on the server side :

- Checking if a Trainee User has still a subscription valid etc..

A screenshot of a web application interface for managing subscriptions. The header shows the GWA logo and navigation links: Home, My Profile, Add Courses, Add Account, Manage Roles, Add Medical Certificates, Manage Subscription, and Personal Info. The main form has several fields: Course Name (with a dropdown menu showing 'Yoga'), Search (with a text input containing 'france' and a search icon), Subscription Duration (with a dropdown menu showing 'Free'), Discount (with a text input containing '0'), Users (with a list of email addresses: 'O francesco.caldivezzi@studenti.unipd.it', 'O francesco.caldivezzi@hotmail.it', and 'O francesco.caldivezzi@gmail.com'), and Last Event (with a text input containing 'O giu 30, 2022'). There is a blue 'Invia' button at the bottom left of the form.

# CREATE COURSES

GWA Gurukul World Academy

Home My Profile Add Courses Add Account Manage Roles Add Medical Certificates Manage Subscription Personal Info

Course Name: Yoga

Teacher: Developer Developer

Rooms: Stamina

Subscription Type:

☐ 30 Price: Enter Price Subscription Monthly

☐ 90 Price: Enter Price Subscription Quarterly

☐ 180 Price: 800 1000 1200 1400 1600 1800 2000 Yearly

☐ 365 Price: 800 1000 1200 1400 1600 1800 2000

Date First Event:

Monday, Start Time: Nothing selected

Tuesday, Start Time: Nothing selected

Wednesday, Start Time: Nothing selected

A Secretary User can create a course which means :

- Creating a new edition for a given Course
- Decide the type of Subscriptions available with respective costs (free subscription always available)
- Adding the lectures for such course by establishing :
  - In which days of the week the new course is going to be held
  - When is the first time the course is going to be held
  - How many weeks it's going to last
  - Who is the teacher of such course among the teachers

Notice that, some important controls were done on the server side in order to :

- Avoid Overlapping lectures
- Avoid that the same Teacher could be in two rooms at the same time



# MAIL SYSTEM



In order to communicate with our customer we use an email system.

We sent email for:

- Registration process
- Reset password process
- Medical certificate updated
- Successful subscription to course
- Changes in Lectures



Dear Simone D'Antimo,

we inform you that we received a request to change your password.

If you ask for this, please, click the link below. Otherwise ignore this email.

[http://localhost:8080/va2122\\_gwa\\_war/password\\_change?token=E3FFFAE292D7816F73B888A56FCA10793A20CD149FA91EFF1C02774361529888](http://localhost:8080/va2122_gwa_war/password_change?token=E3FFFAE292D7816F73B888A56FCA10793A20CD149FA91EFF1C02774361529888)

\*\*\*

the link will expire in 30 minutes

Kind regards,

The Gwa Team

*The body of an email sent by our gym*

# HOW MAIL SYSTEM WORK:



MailTypes.java → Contains static methods that format the plain text of the mail, based on and the input given. Servlets can send mails invoking one of the “MailTypes” static methods.

MailManager.java → Contains a method that , given a subject, a plain text and the destination mail styles the email and then sent it.

Email are formatted using HTML language, the text is concatenated with StringBuilder class

```
htmlText.append("""
    <div style="width:100%; height:100%;">
        <div style="width:500px; height:220px;">
            
        </div>
    </div>
    <div> <pre>""");
htmlText.append(text);
htmlText.append("</pre> </div>");
```



And now we will show our demo !