



ESN WebApp

ESSENTLS

Web Application

Computer Engineering M.D.



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What's ESN?

Is a **non-profit organization** that supports and promotes the **mobility of students** in higher education.



What are their needs?

A centralized and easy to access and maintain **managerial software** in order to manage their **member** and the various **event** they organize.

Current Process - Pain Points

- Only cash payment for the ESNcard
- Handwritten receipt
- Hard to maintain Google Sheet
- Use of Google Form
- Event managed through a Facebook group



RICEVUTA n. _____

data _____

Ricevuti da _____

€ _____

Per _____

TOTALE € _____

SOGGETTA a imposta vigente

APPLICARE LA TASSA DI 10% SULLA SOMMA TOTALE

N	Nome	Cognome	Data di nascita	Nazionalità	Sesso	Nome Facebook
1	1	L...		ITALIAN	M	
2	2	Ale...		ITALIAN	M	
3	3	...		ITALIAN	F	
4	4	...	1991	ITALIAN	F	
5	5	...	1994	ITALIAN	M	
6	6	...	1985	ITALIAN	M	
7	7	...	1987	ITALIAN	M	
8	8	...	1987	ITALIAN	M	
9	9	...	1987	ITALIAN	M	
10	10	...	1987	ITALIAN	M	
11	11	...	1985	ITALIAN	M	
12	12	...	1979	ITALIAN	M	
13	13	...	1980	ITALIAN	M	

Main features



FOR MEMBERS

- Membership empowerment
- Management



FOR EVENTS

- Visibility
- Payments
- User interaction



Basic User



ESN Member



Aspiring
Volunteer



Active
Volunteer



System
Admin

Tier 0: Basic User

Tier 1: ESN Member

Tier 2: Aspiring Volunteer

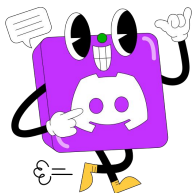
Tier 3: Active Volunteer

Tier 4: System Admin

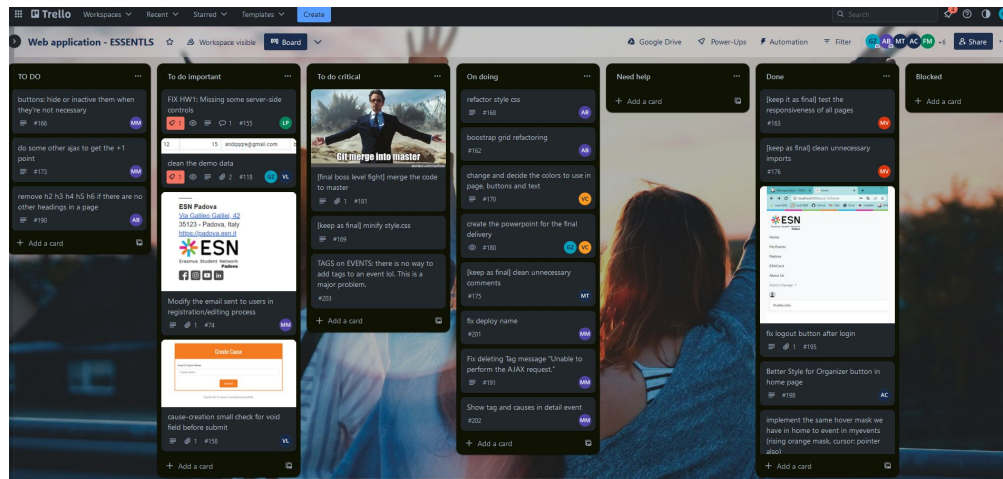
Bitbucket: git repository



Whatsapp and Discord:
meeting and chatting



Trello: tickets, fixes and hierarchy



Project structure



Frontend: *Bootstrap, CSS,
HTML, JS*

Backend: *Java*

Database: *Postgres 15*

Web server: *Apache Tomcat*

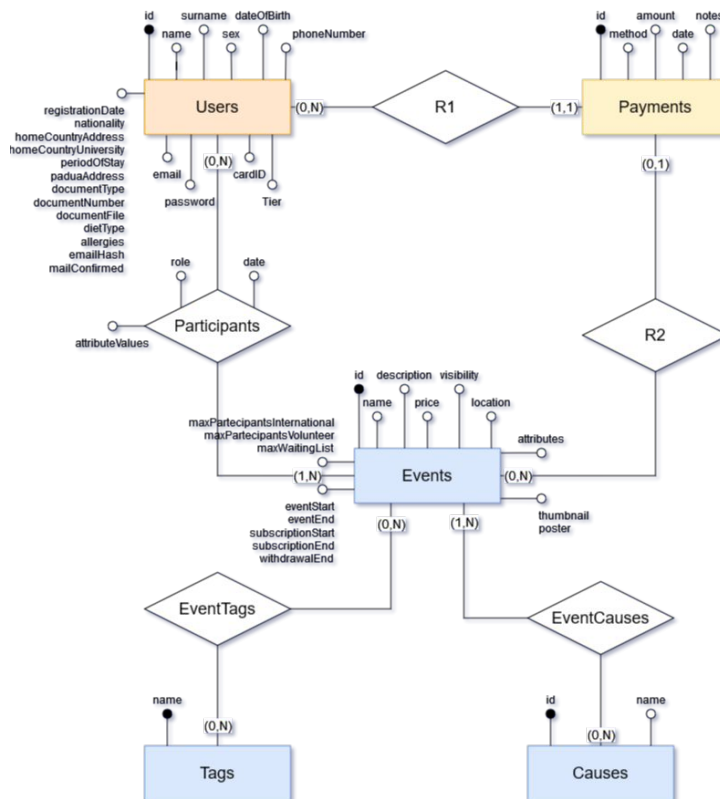
Backend

- dao
- filter
- mail
- resource
- rest
- servlet
- utils

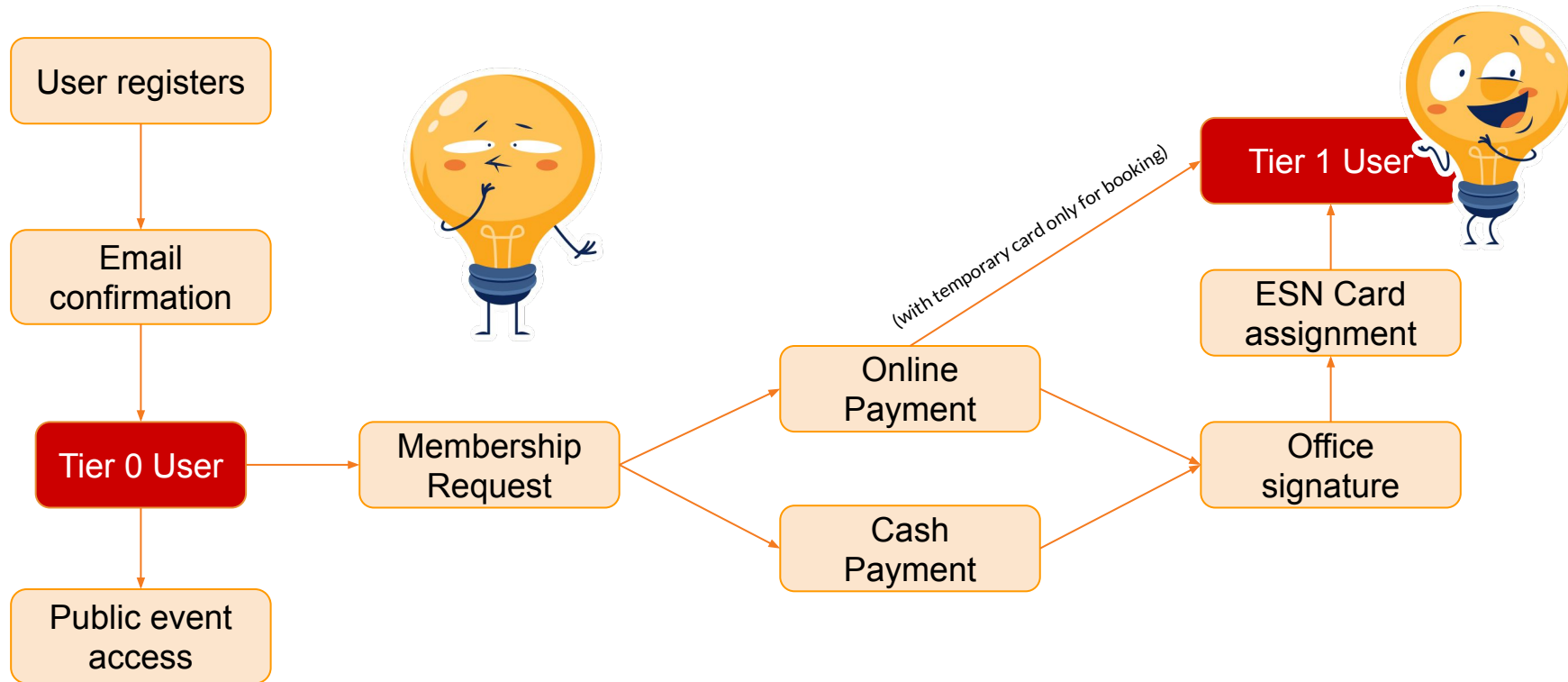
Frontend

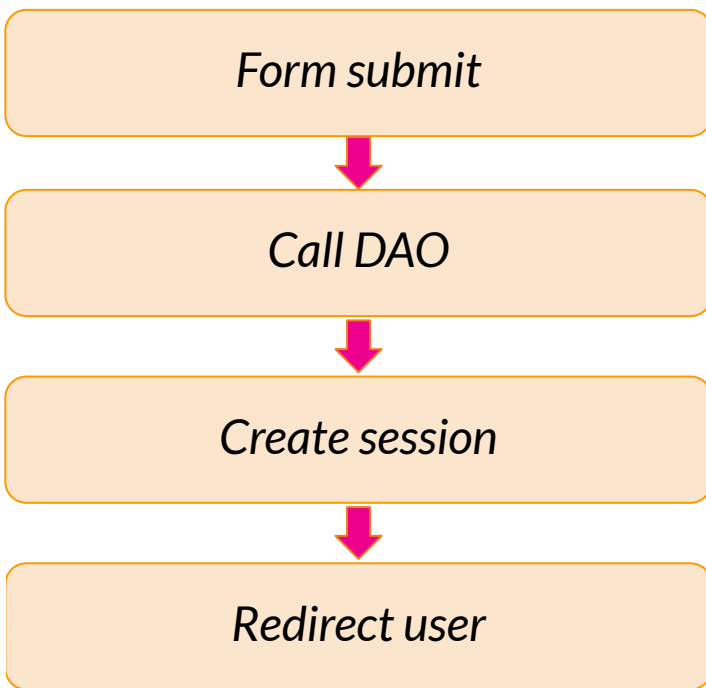
- css
- html
- js
- jsp
- media

ER diagram



User interaction flow





Welcome to ESN!

Login to continue

Insert your Email

Insert your Password

[Log in](#)

Don't have an account? [Sign up](#)

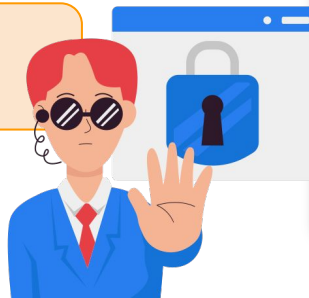
Intercept request









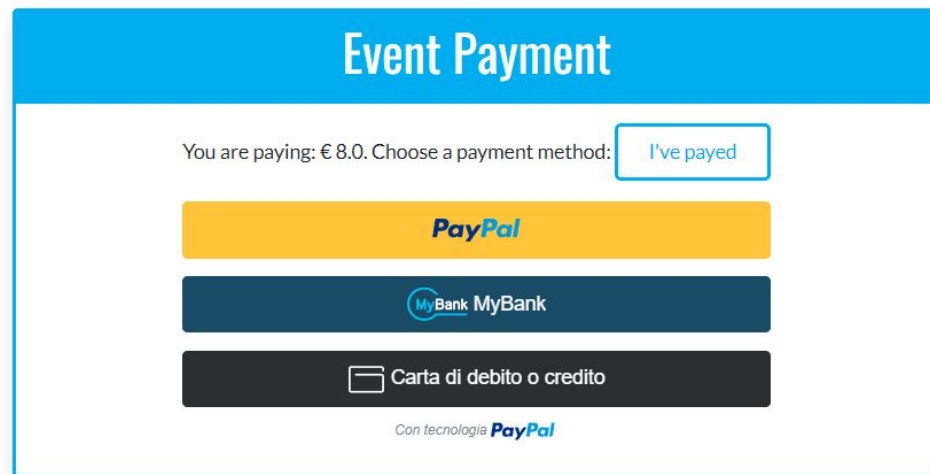
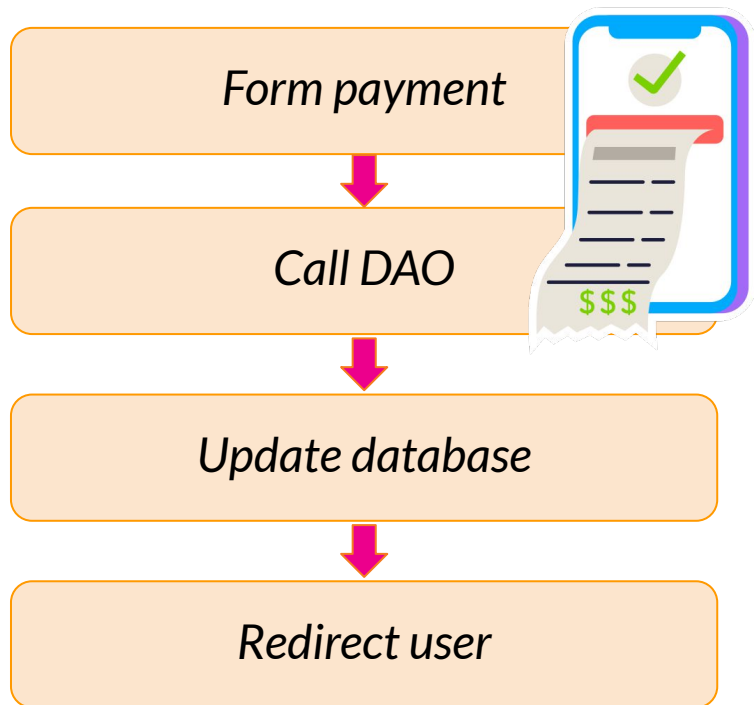
Use the session object



Secure the data



-  AbstractFilter.java
-  ActiveVolunteerFilter.java
-  AdminFilter.java
-  DenyFilter.java
-  LoginFilter.java
-  VolunteerFilter.java



Event Payment

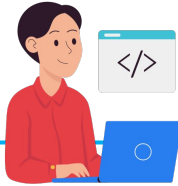
You are paying: € 8.0. Choose a payment method:

PayPal

MyBank MyBank

☐ Carta di debito o credito

Con tecnologia **PayPal**



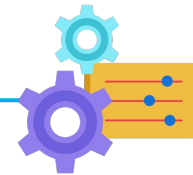
Responsive Design

Is optimized for different screen sizes such as laptops, desktops, and mobiles.

REST API

The APIs are utilized on pages for administrators to manage the resources.

AJAX

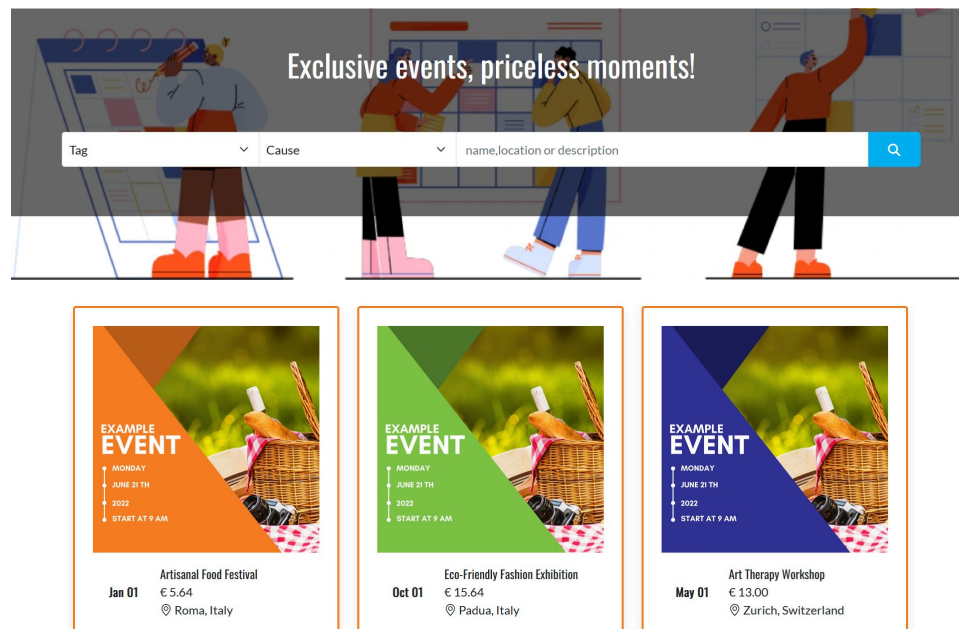


Some pages have some AJAX controls to make the interaction smoother.

Finding specific events is made easier

Search by:

- Tags
- Causes
- Names
- Locations
- Descriptions



In the navigation the admin have the "Admin Manage".

These options are only accessible to administrators (Tier 4) and active volunteers (Tier 3).

