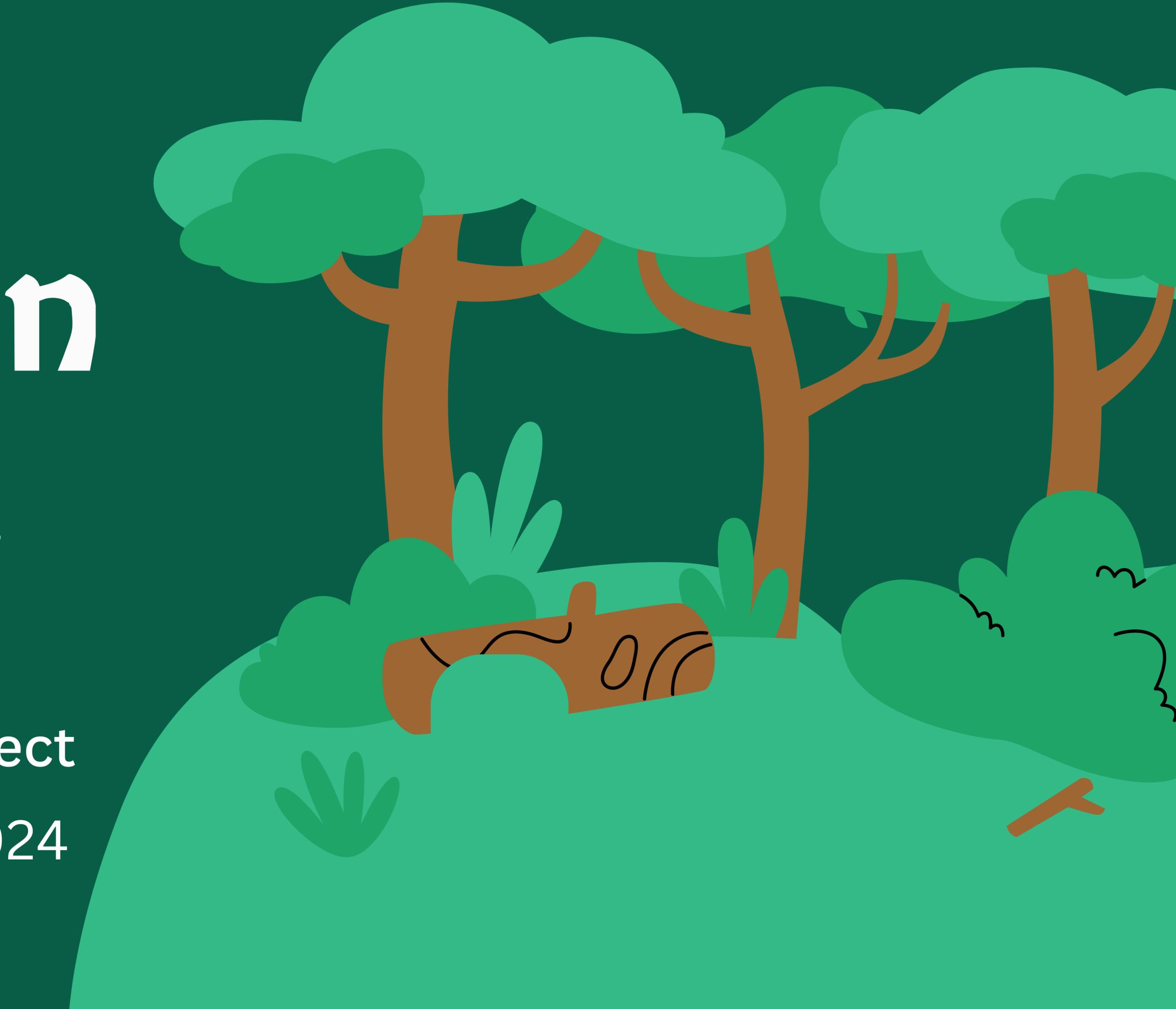


LIF group present:

# Lupus in fabula

A Web Applications Project  
Academic Year 2023/2024



# WHAT IS LUPUS IN FABULA?

Lupus in Fabula is a multiplayer game where players assume various roles within a village



## VILLAGE

All the game is situated in a village, and the game is divided in day and night.



## ROLES

The game has various roles each with its own unique abilities.



## GAME END

How to finish the game?

# ROLES

The game features various roles, randomly assigned and kept secret, each with its own unique abilities.

There are four types.

**GOOD**

Farmer, Knight, Seer, Sheriff, ...

**EVIL**

Wolf, Explorer, Puppy, ...

**VICTORY STEALER**

Hamster and Jester

**NEUTRAL ROLES**

Illusionist and Plague spreader



# PHASES

## Night

It's the phase when most of the roles play their action.

The gamemaster says:

“it is night, everyone close your eyes”

Each role is called and they can only point their finger (in silence) towards the target they are choosing.

## Day

Discussion among alive players.

Vote: each player (even the dead players) votes to burn a player at the stake.

Ballot: A second vote without the dead players to finalize the lynching decision.

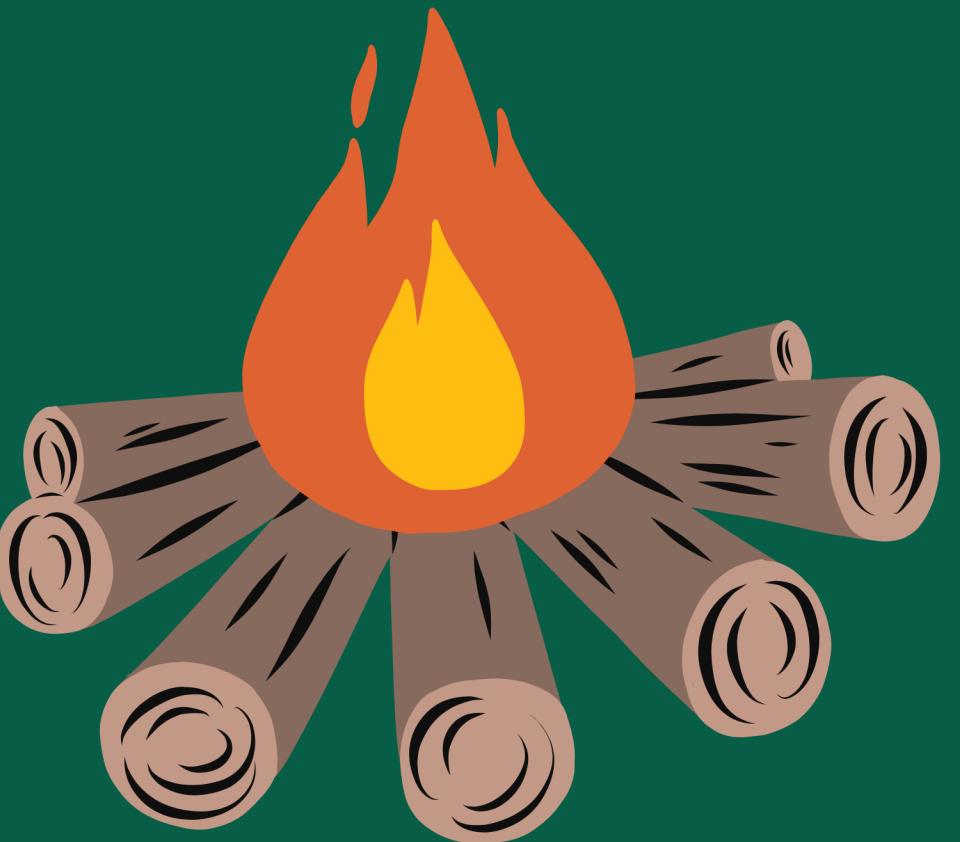


# WHEN THE GAME ENDS

The game ends when:

- All **evil roles are dead**: Good roles win
- **Evil roles outnumber the other roles**: Evil roles win.

**Victory Stealers**: Have their own unique missions to win the game independently.

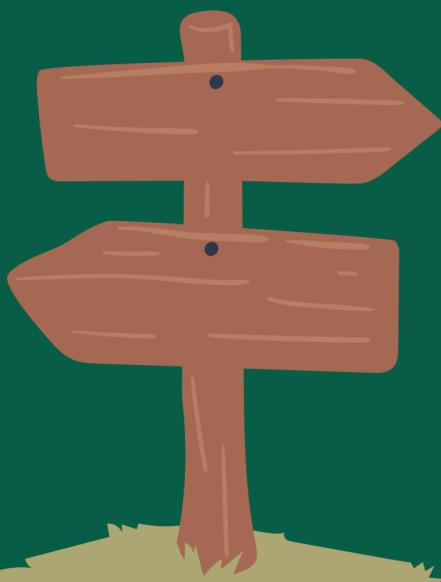


# WHAT WE HAVE DONE

**Problem:** The traditional method of moderating the game involves manually recording actions on a phone or paper.

**Aim:** Develop a web app that helps the game-master to keep track of what happens during the game, but the game is still played in real life.

This application aims to streamline the process, providing an organized platform for tracking player roles, nighttime actions, and daytime voting outcomes.



# BACK-END

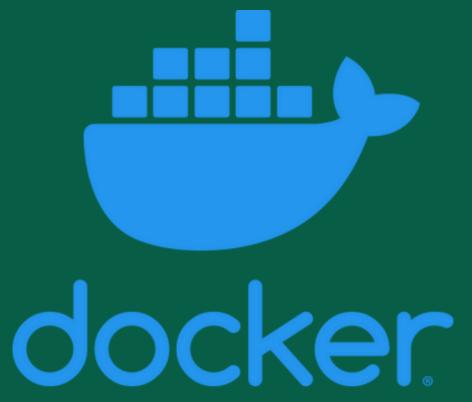
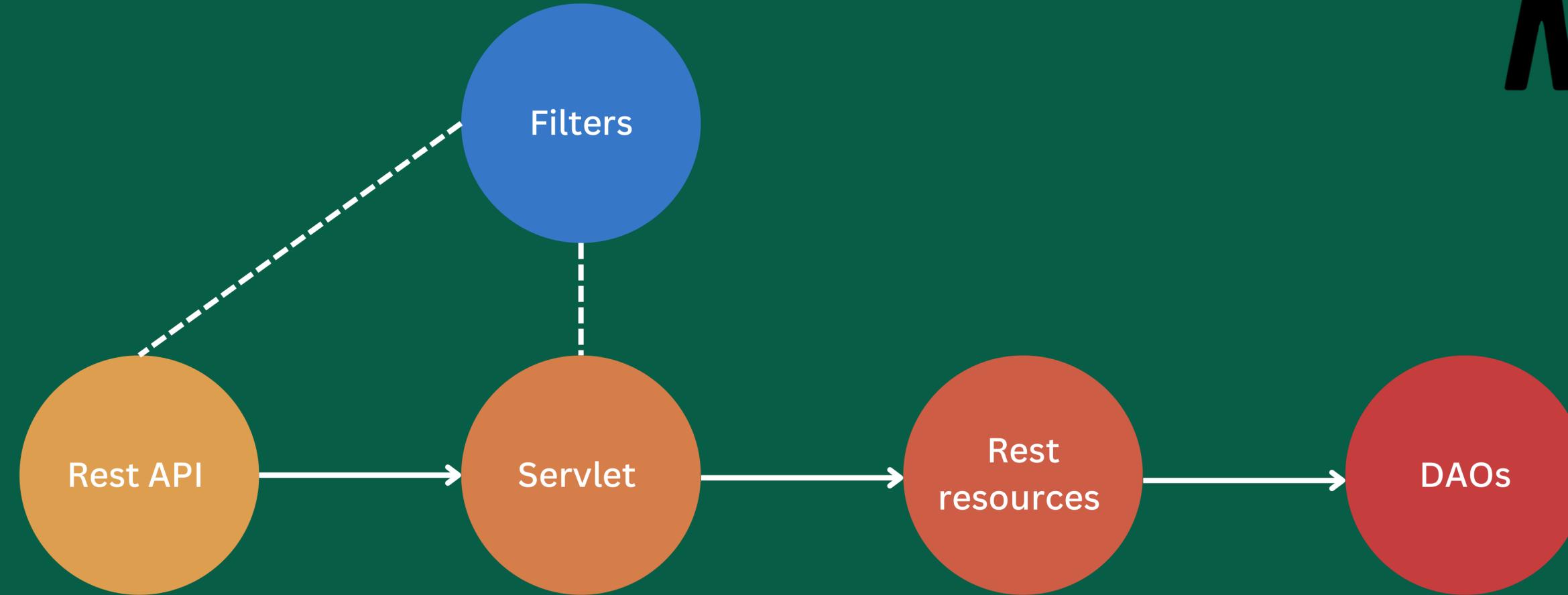
The backend is implemented using Java servlets.

The DBMS used is PostgreSQL.

The build process is managed by Maven.

The application environment is managed by Docker's containers.

The version-control tool is Git.



# FRONT-END

## Web Page Content:

- JSP
- HTML



## Styling

- CSS
- Bootstrap
- Font Awesome

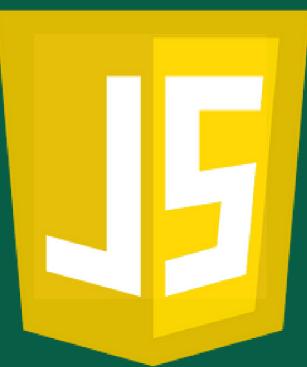
CSS



## Scripting and Interactivity

- JavaScript
- AJAX

JS



# SIGN UP/LOGIN

## Sign up

Username

Email

Password

Repeat password

Sign up

Login



The password must contain:

- From 8 to 20 characters.
- An uppercase letter.
- A lowercase letter.
- A number.
- A symbol (!@#\$%^&\*)

Password

Test00



## Sign up

## Login

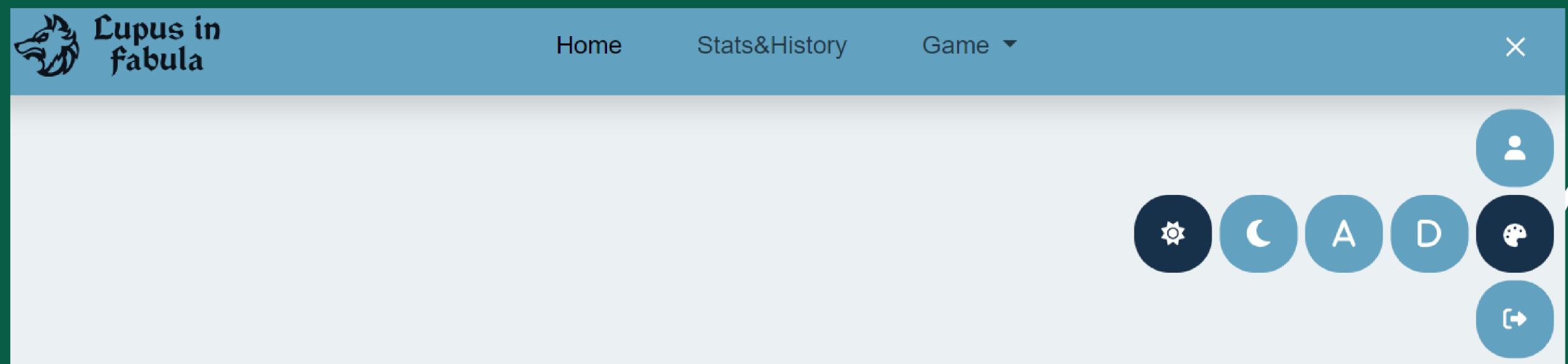
Username/Email

Password

Login



# NAVIGATION BAR



## 4 POSSIBLE THEME:

- Ligth
- Dark
- Auto
- Dynamic



Mobile view

# RULES PAGE

Lupus in fabula

Home Stats&History Game

## RULES

**1 Introduction to Lupus**

In the remote village of Fabula, some people become werewolves at night. They attack an innocent person to satisfy their instincts. During the day, the survivors discuss what to do. At the end of the discussion, they lynch one of them. Who will survive the massacre?

**2 Aim of the game**

There are two factions in the game: the Werewolves and the Villagers. The aim of the Werewolf faction is to eliminate all villagers. Conversely, the aim of the Villagers faction is to lynch all the Werewolves.

**3 Preparation**

Before the game starts, one player is chosen to be the master/moderator. He doesn't belong to any faction, and he will only manage the game tracking everything that will happen. The other players will play the role given to them by their card and look at their own card secretly.

## Rules and phase of the game



## Explanation of the roles

**GOOD**

Resident of the village of Fabula, who wants to protect the village from the pack of wolves.

**CARPENTER**

He is the villager who provides wood for the bonfire. If he is voted out, he will refuse to provide the wood, and there will be no bonfire for that day. The power can only be used once.

**WINS WITH: VILLAGERS**

**EVIL**

Pack of wolves that want to maul the villagers

**BERSERKER**

The Berserker can only unleash his rage one during the game. This occurs on the night he is activated, where he has the ability to attack two players in a single turn. However, this action results in his death that same night. He can bypass the knight by making his protection ineffective.

**WINS WITH: WOLF PACK**

**VICTORY STEALER**

Villagers who play for themselves without caring about other villagers

**HAMSTER**

He is a farmer during the day, but at night he is invulnerable to wolves. If the seer probes him or the guard protects him, he dies. The hamster wins if he survives with the villagers.

**WINS WITH: ALONE**

**NEUTRAL ROLES**

Roles that play with the villagers or the pack of wolves, and that can cause chaos between any type of role

**ILLUSIONIST**

He chooses a player during the night and blocks his power for that night.

**WINS WITH: WOLF PACK**

# PERSONAL AREA

Friends

Cards

Change Credential

Delete Account

## Your personal area

Friends

Cards

Change Credentials

Delete Account

Search a player...

Add!

### Your Friends

Username	Available	Games together	Since	
Nicola	🔴 in game	2	2024-06-01	<button>Delete</button>
Michele	🔴 in game	2	2024-05-26	<button>Delete</button>
Jacopo	🔴 in game	2	2024-05-13	<button>Delete</button>
Riccardo	🟢 free	0	2024-06-07	<button>Delete</button>

# PERSONAL AREA

Friends

Cards

Change Credential

Delete Account

Your personal area

Friends      Cards      Change Credentials      Delete Account

Update the card

# PERSONAL AREA

Friends

Cards

Delete Account

Change Credential

Your personal area

Friends

Cards

Change Credentials

Delete Account

Username

Nicola

Current E-mail

New E-mail

Current Password



New Password



Repeat New Password



Update Credentials

# PERSONAL AREA

Friends

Cards

Change Credential

Delete Account

Your personal area

Friends

Cards

Change Credentials

Delete Account

Username

Nicola

E-mail

nicola@gmail.com

Password



Delete Account

# DEMO



# GAME LOGS PAGE

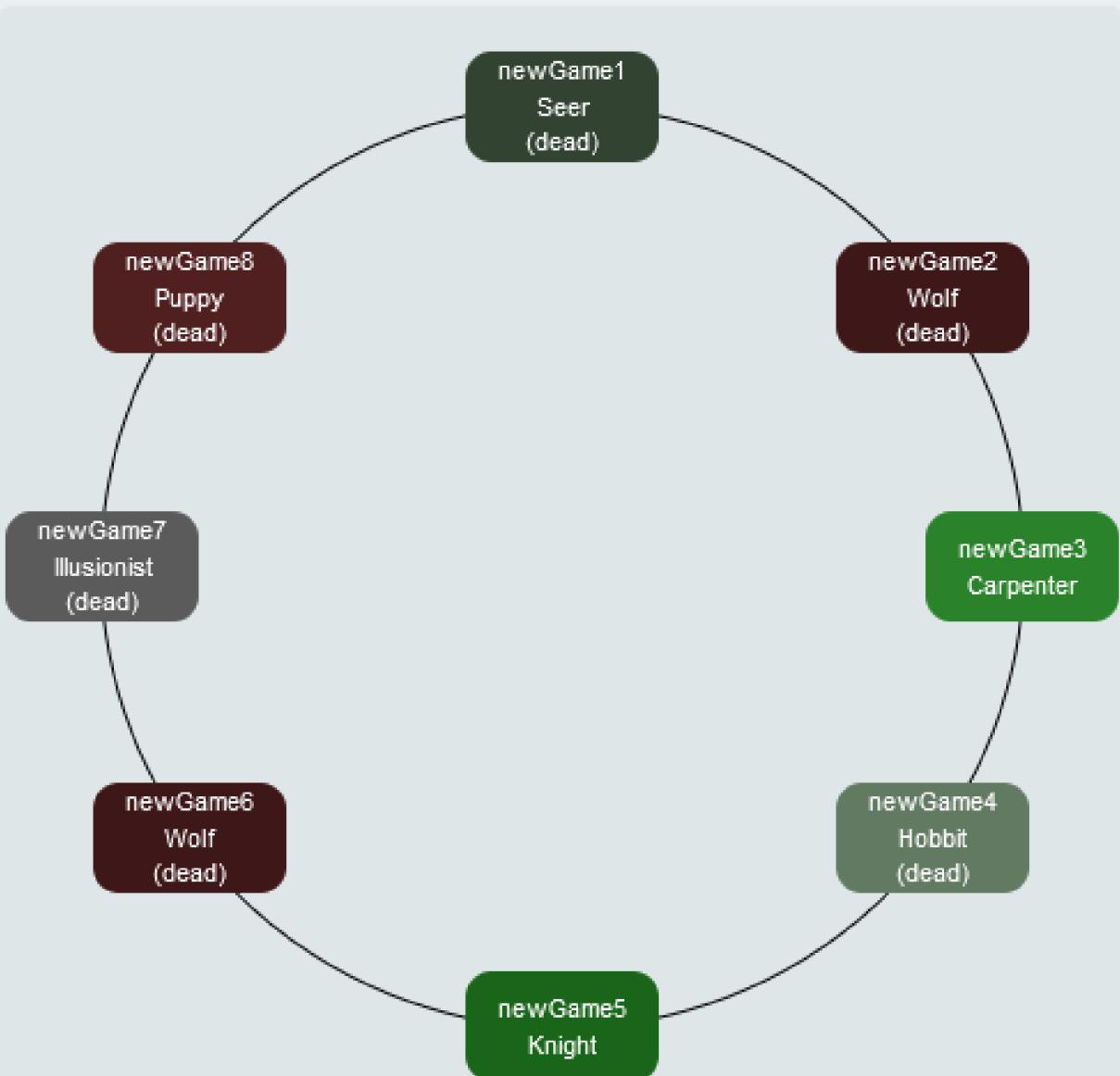
## THE GAME IS OVER

The **farmers** win!

The game started on 2024-06-07 at 19:04:06 and lasted for 5 rounds.

Total duration of 5 minutes, and 11 seconds.

### HABITANTS STATUS



### VILLAGE LOGS

Round 1

Night  
Day

Dead | newGame8 is at the **stake**

Round 2

Night  
Day

Action | newGame3 use **last chance**

Round 3

Night  
Day

Dead | newGame7 is at the **stake**

Round 4

### Night

Action | newGame5 **protects** newGame5

Action | newGame1 **investigates** newGame4

Action | newGame6 **mauls** newGame1

Dead | newGame1 is **dead**

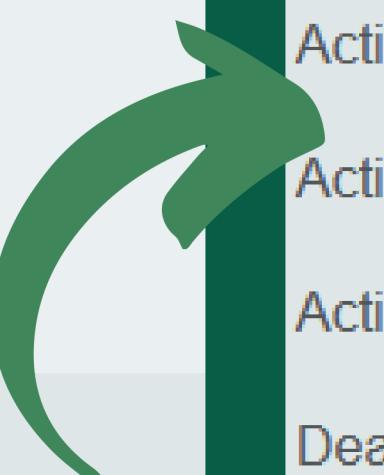
### Day

Vote | newGame6 votes newGame8

Vote | newGame8 votes newGame1

Vote | newGame7 votes newGame8

Vote | newGame1 votes newGame8



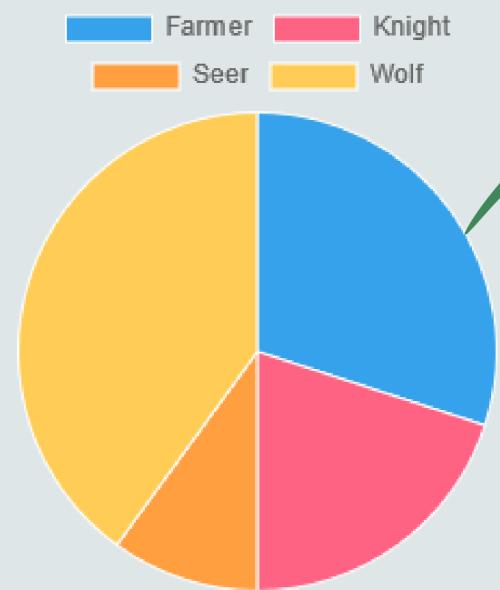
# STATISTICS PAGE

## Your Statistics

### Statistics ⓘ

Total time played	02:25:04
Games Played ⓘ	10
Games Won	5
Games Lost	5
Ratio ⓘ	50%
Games as master	1

Role	Times	Wins	Loss	Rate ⓘ
Farmer	3	2	1	30%
Knight	2	1	1	20%
Seer	1	0	1	10%
Wolf	4	2	2	40%



Pie chart with roles played

### History ⓘ

Date and time ▾	Gameld	Duration	Number of rounds	Role played	Outcome	Game history
2024-06-04 19:22:17.0	farmer-berseker-puppy	00:31:20	6	*****	-	<a href="#">View match</a>
2024-06-01 17:32:26.0	carpenter-farmer-kamikaze	00:45:37	10	Master	-	<a href="#">View match</a>
2024-05-17 12:54:13.0	puppy-knight-seer	00:17:12	3	Farmer	Victory	<a href="#">View match</a>
2024-05-15 11:54:09.0	medium-knight-sam	00:21:17	4	Seer	Defeat	<a href="#">View match</a>
2024-05-08 11:02:15.0	illusionist-sam-sheriff	00:16:27	4	Wolf	Defeat	<a href="#">View match</a>

Hidden role for pending matches

# FUTURE IMPROVEMENTS



## PERSONALISATION

New costumization allowing to use different themes.

## NEW ROLES



## ACCESSIBILITY

Addition of the possibility to use colorblind-friendly palettes.



## USE OF WEBSOCKET

Possibility to play the game online without the need of a master.

# CONTRIBUTIONS

## Nicola Busato

Project setup, including the configuration of Docker containers, pom.xml, and web.xml. Frontend and backend development for login/signup and game creation. Management of possible game actions (GET only) and victory conditions. Frontend for viewing and sending game actions, player status display (circle/grid view). General graphics unification, creation of light/dark colour modes, graphics for the 404 page and homepage.

## Jacopo Cini

Developed REST API for managing logs, including DAOs to retrieve all actions associated with a game and to fetch players who died during a round and phase.  
Created JavaScript log manager to handle log display on the current game page.

## Michele Gusella

Developed REST API and backend to manage current game (current players and their roles), developed GameDispatcherServlet. Developed frontend of current game when a player isn't master, hide player role, card back change in personal area, navbar and homepage prototype.

## Riccardo Miele

Setup of database, creation of ER scheme and logic scheme and the implementation in SQL. Writing of chapter 3 and revision of chapter 2. Backend and frontend for statics player page composed by general statistics and game logs.

## Jacopo Momesso

Backend and frontend for the user page. Backend for handling the night phase of the game (all the controls for the night actions of each implemented role) and bug fixing during frontend implementation.  
Backend and frontend for rules and roles page; developed the navbar.  
Created the role cards for the game

## Nicola Pozzo

Developed backend and frontend for the friends page and related button in the statistic page to directly add/remove friend from that page.  
Backend for manage the day phase of the game (votes, ballot & extraAction).

**THANKS  
FOR YOUR  
ATTENTION!**

