S5M-UML-PROJECT: F1 Betting Website

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Project Description:

We (Paul and Antoine) have been fans of Formula 1 for years and we just started to introduce Alexandre to this wonderful sport and universe. As big fans of Formula 1 since multiple years, we decided to create a project dedicated to this sport.

The focus of our project is to develop a dedicated online platform for Formula 1 fans, providing them with an opportunity to engage with the sport through a betting website. This platform aims to cater to the interests of Formula 1 fans and betting enthusiasts by creating a space where they can explore the sport in a unique manner.

Project Objectives:

Educational Focus: One of our key objectives is to create an educational platform where users can learn about Formula 1, its races, teams, and drivers. By integrating informative content, we intend to enhance users' knowledge about the sport.

Safe and Responsible Betting: Ensuring a responsible betting environment is crucial. Our project emphasizes promoting safe and ethical betting practices. We will implement measures to prevent underage gambling and provide resources for responsible betting.

User Engagement: The project aims to enhance user engagement by providing interactive features such as live race updates, historical race data, and driver statistics. These features are designed to keep users informed and engaged throughout the Formula 1 season. We want them to make choices knowing all they have to know.

Required Project Diagrams

At the beginning

- ER + Table structure diagram for the database
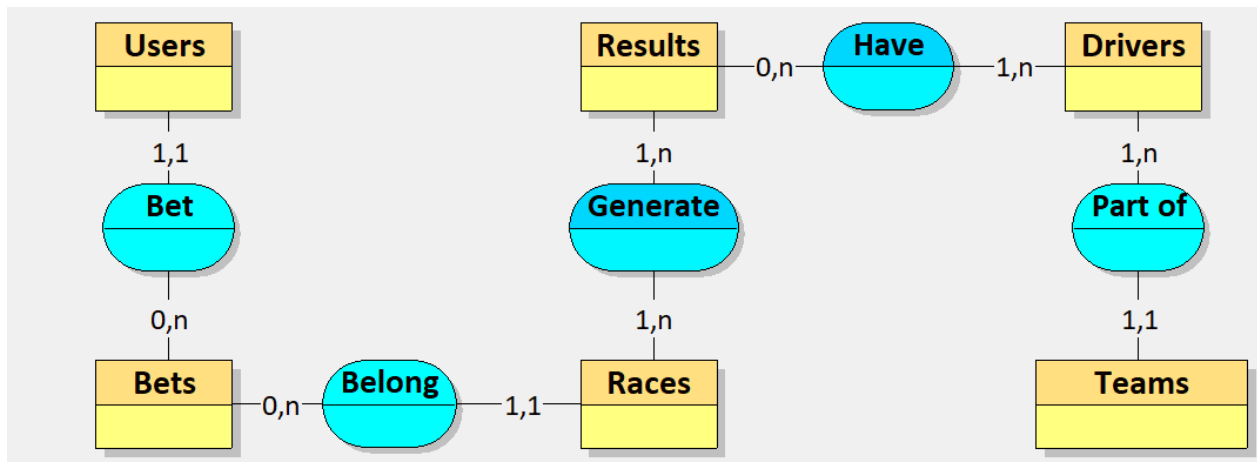- Gantt diagram (planned)

Minimum one diagram per member

- Use case diagrams (Who can access and what functions)
- Activity diagrams (Some processes from the user perspective)
- Wireframes (UI sketches)
- Component diagrams (The big modules that the system will have)
- Sequence diagrams (Some processes from the code perspective)

At the very end

- Gantt diagram (actual, signaling who worked where)
- Class diagram (can be auto generated + class relations added manually ... From JS code, auto-generation is tricky ...)
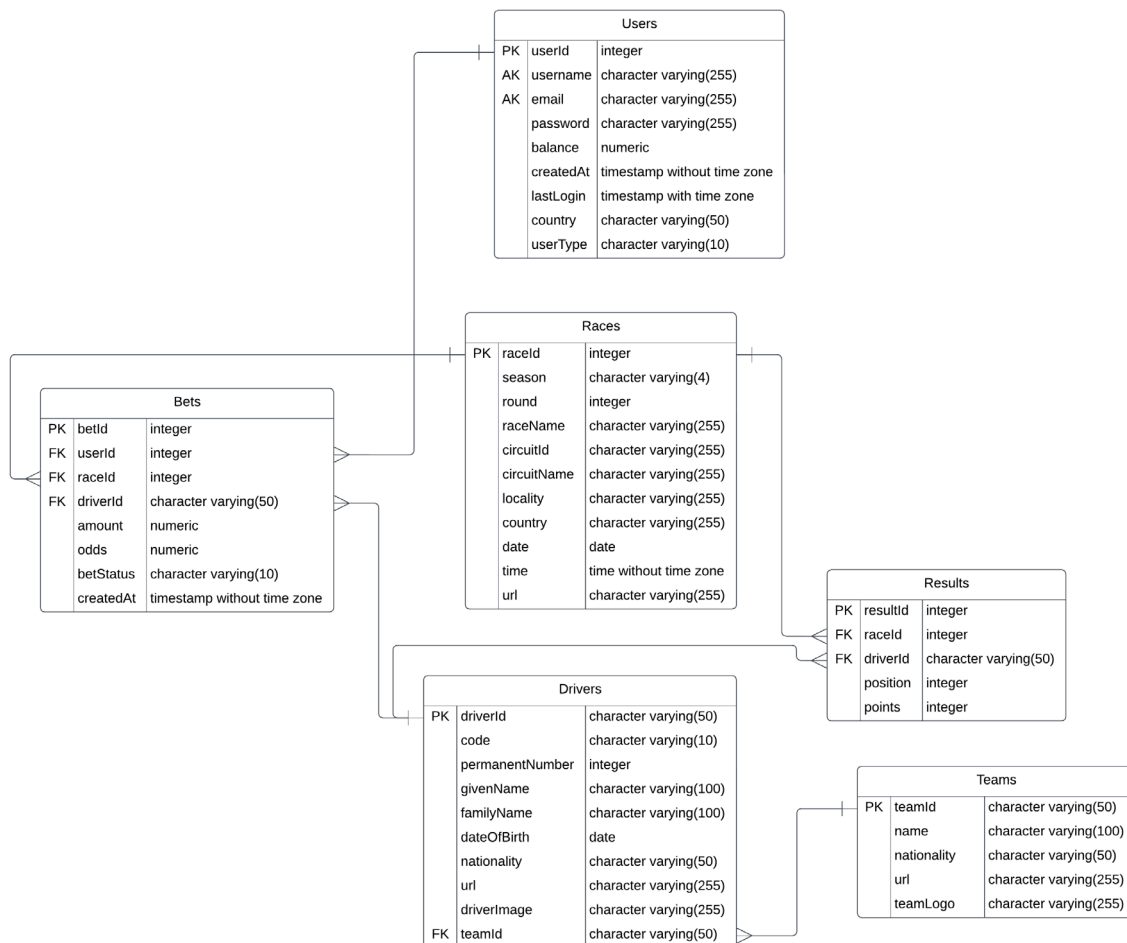
ER diagram:

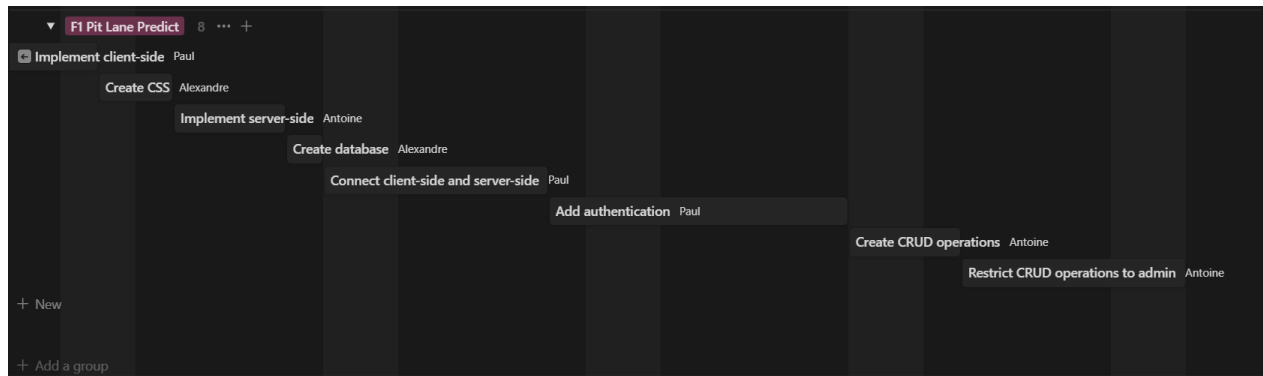*#1: This diagram is an entity relationship representing our database.* **Paul HU**

Table structure:

*#2: This diagram is a table structure representing our database.* **Paul HU**

Gantt diagram (planned):

#3: This is the first Gantt Diagram concerning our project, it has been done on Notion and only shows the outlines for the moment. **Antoine DUPONT, Paul HU, Alexandre GUILLOIS**
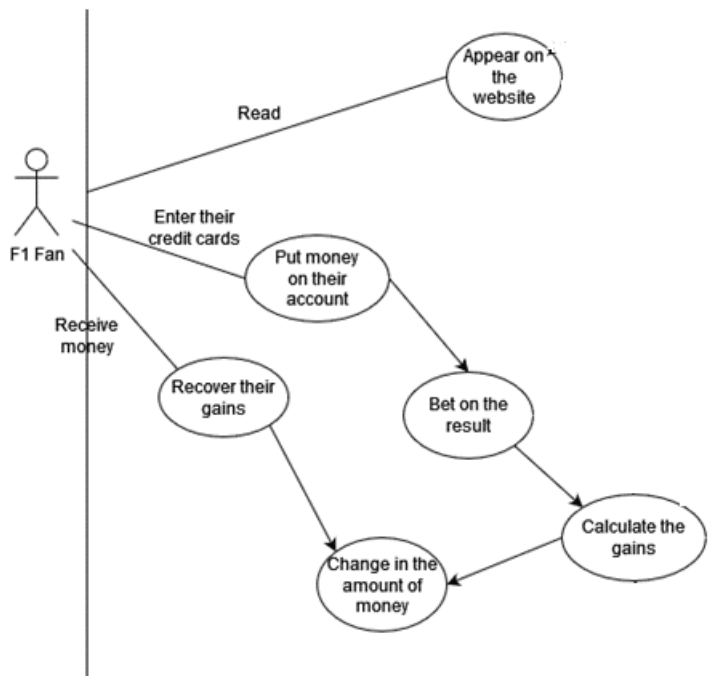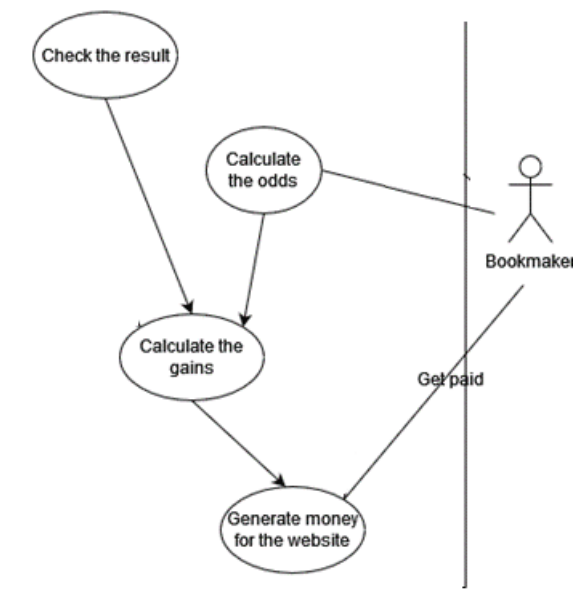

Use case diagrams:

#4: This diagram shows how authors, who can be F1 journalists, experts, or experimented fans, can use our website by writing articles about F1 teams, drivers, or races. **Antoine DUPONT**
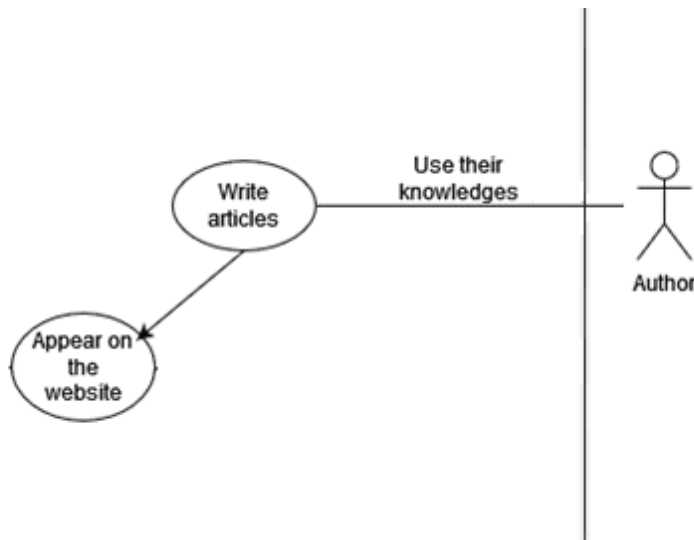
#5: This diagram shows how F1 Fans can use the website and what for. They can either read articles, look for race results or bet on races. **Paul HU**
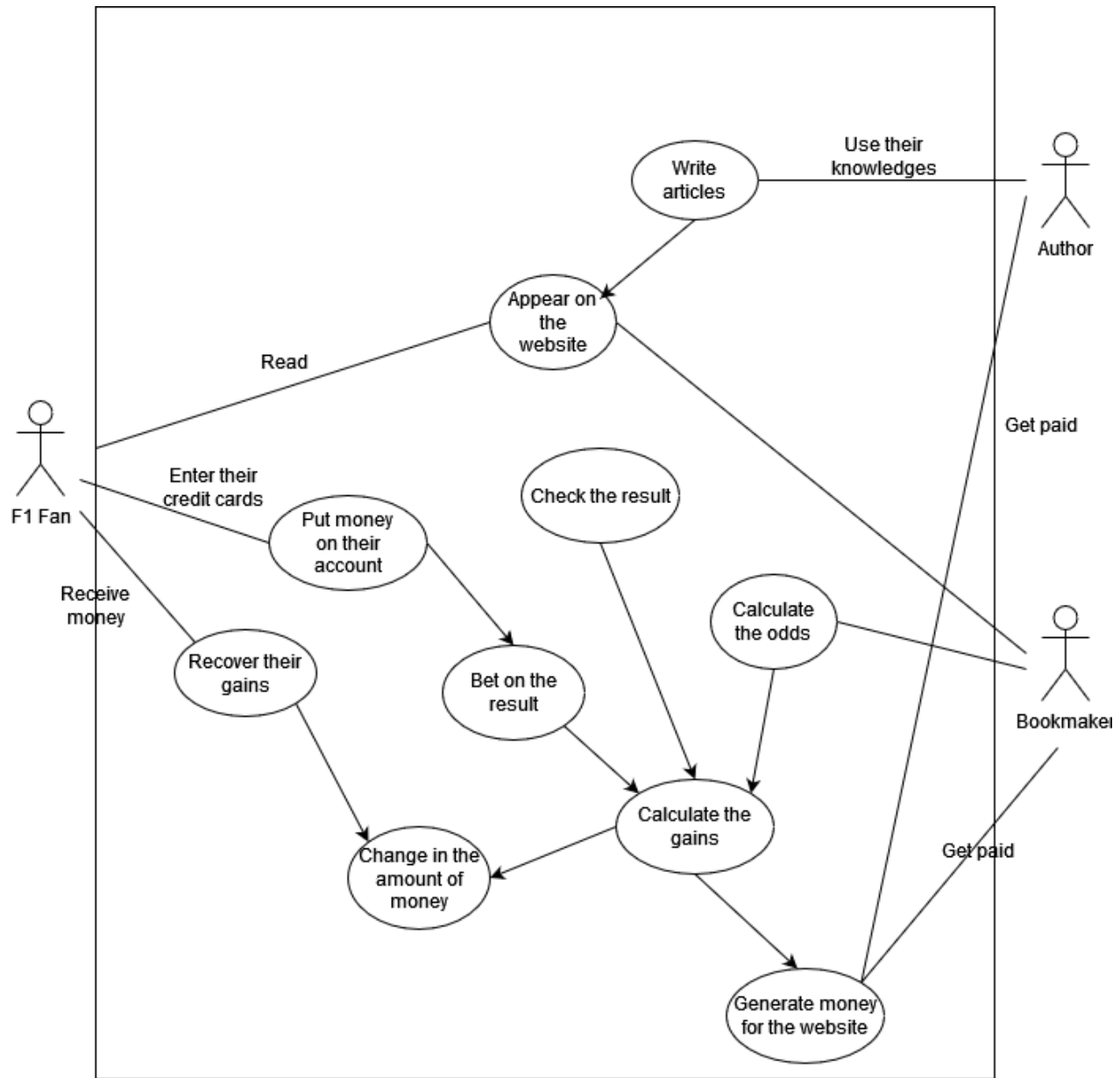

#6: This diagram shows how bookmarkers can use the website and what for. They can check the results, calculate the odds that will influence the gains on each bet and earn money from it. **Alexandre GUILLOIS**
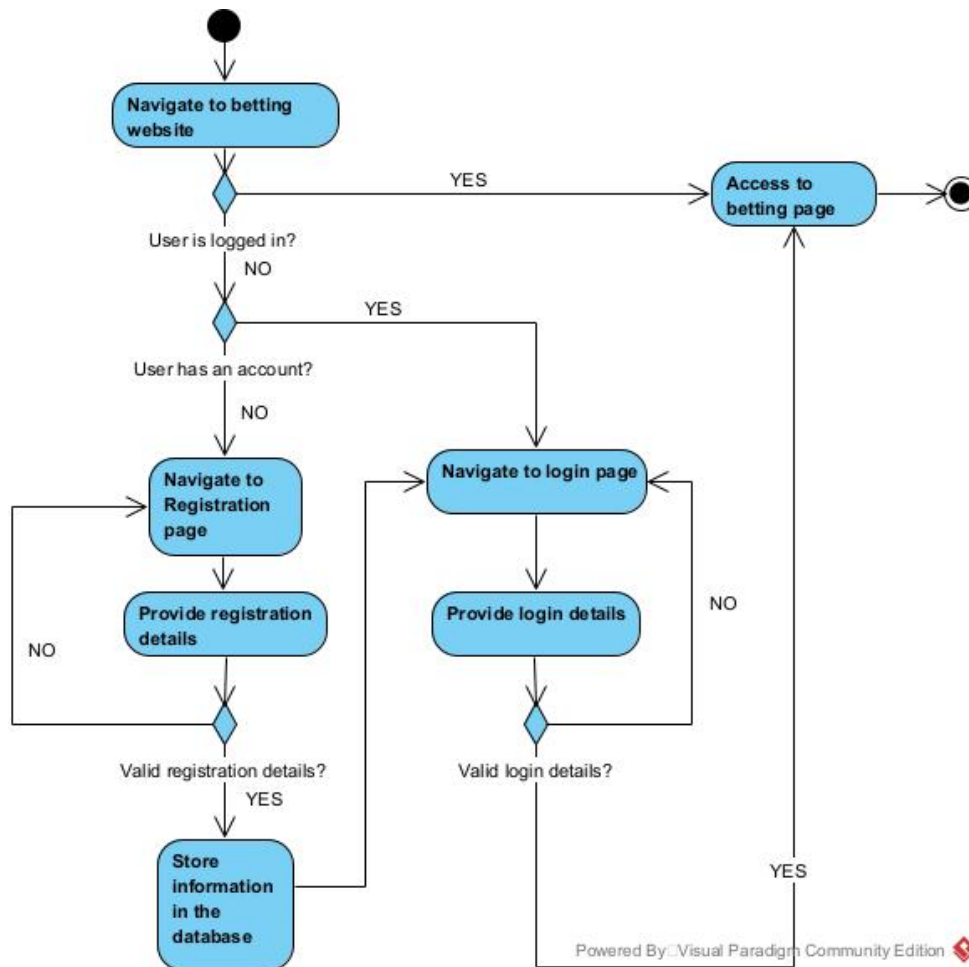
#7: This is the entire diagram with the use cases of every user: authors, F1 Fans and bookmarkers.
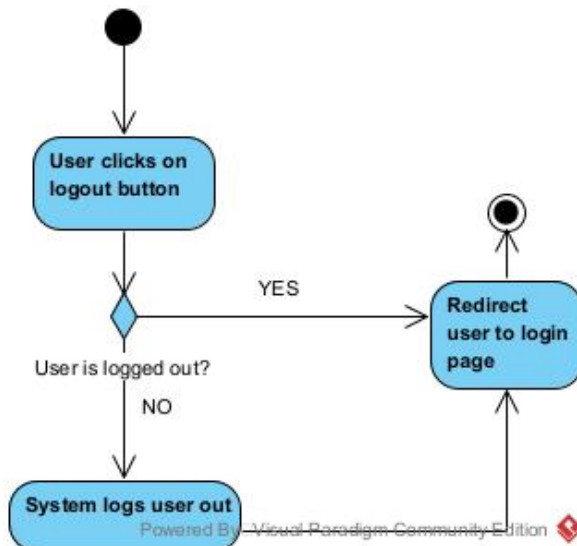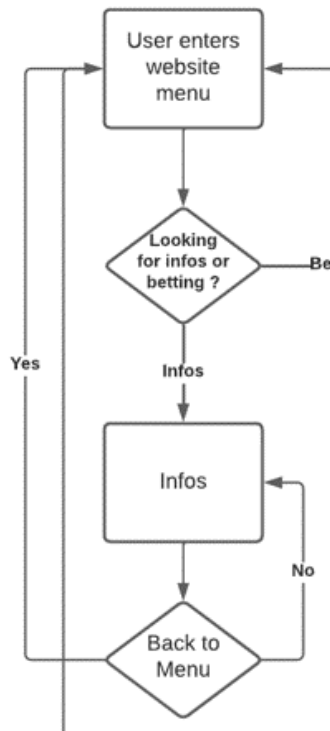**Antoine DUPONT, Paul HU, Alexandre GUILLOIS**

Activity diagrams:

#8: This diagram describes the activity on the login page. **Paul HU**

#9: This diagram describes the activity on the logout page. **Antoine DUPONT**
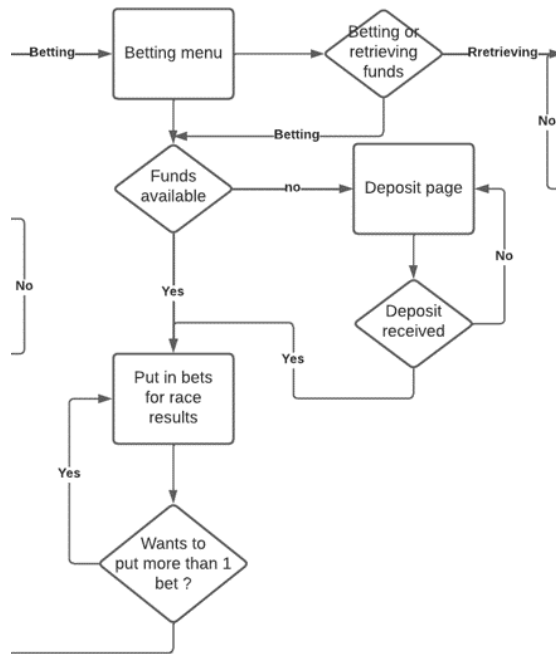
#10: This diagram is an activity diagram on the processes available on the opening page. **Antoine DUPONT**
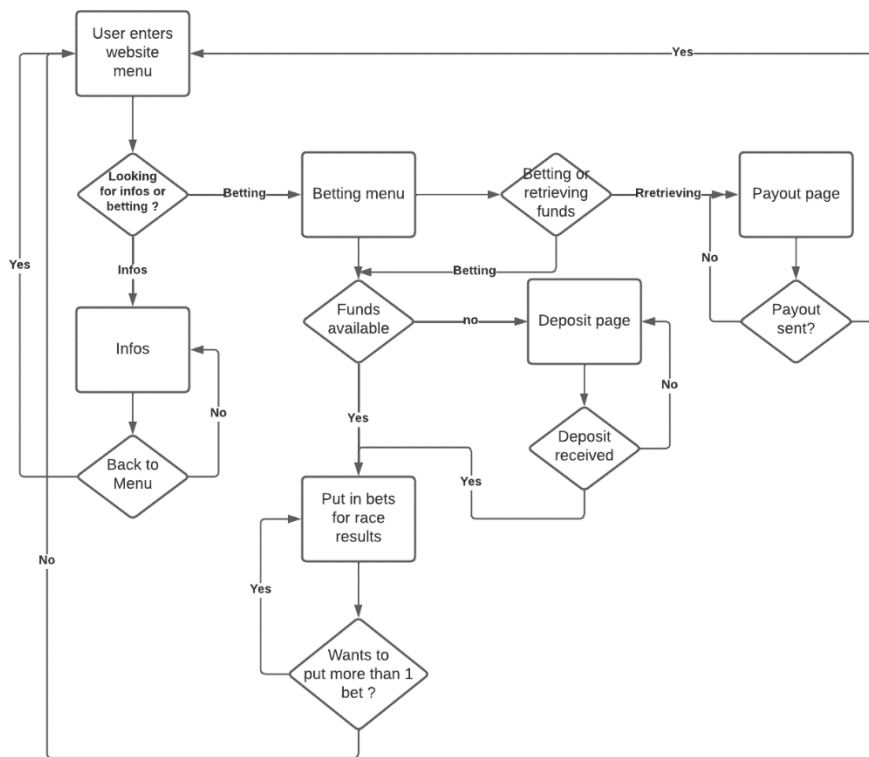

#11: This diagram is an activity diagram about processes available on the payout page. **Paul HU**

#12: This diagram is an activity diagram about processes available on the betting page. **Alexandre GUILLOIS**
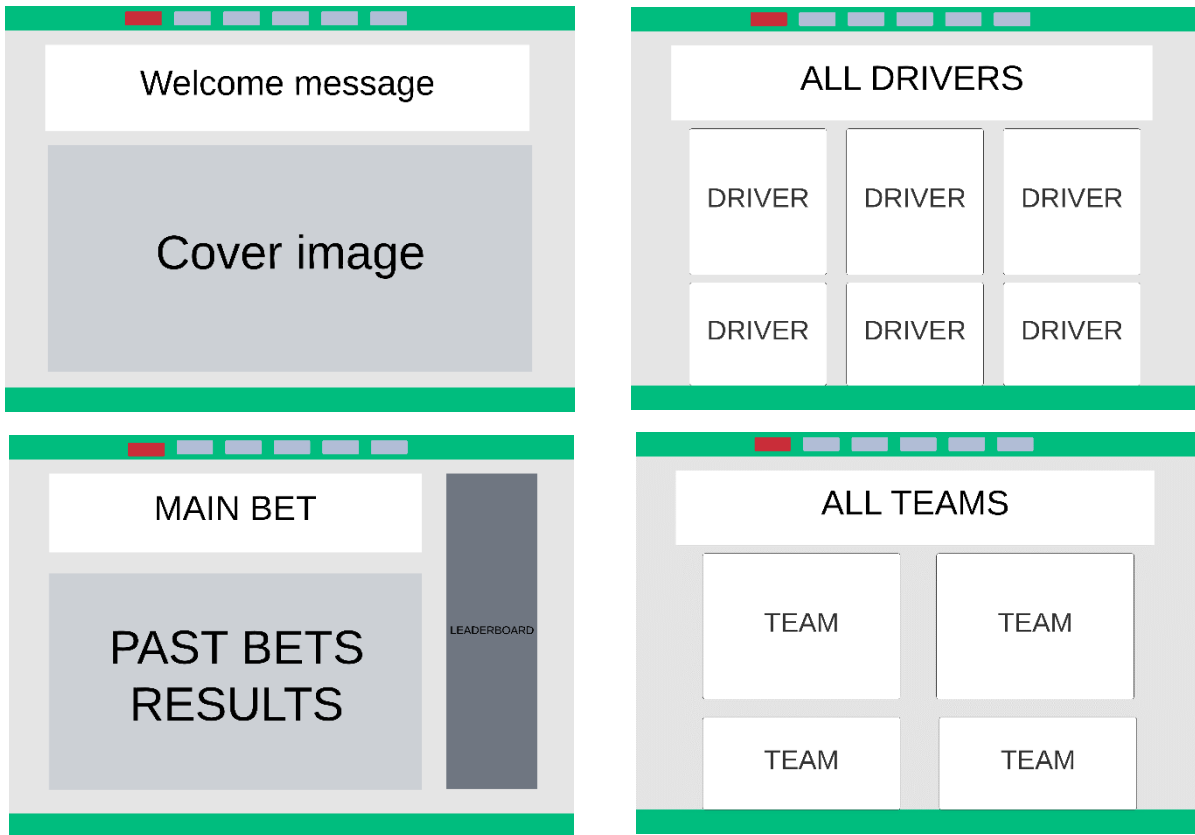

#13: This diagram is an activity diagram, it shows some processes from the users' perspective. **Antoine DUPONT, Paul HU, Alexandre GUILLOIS**
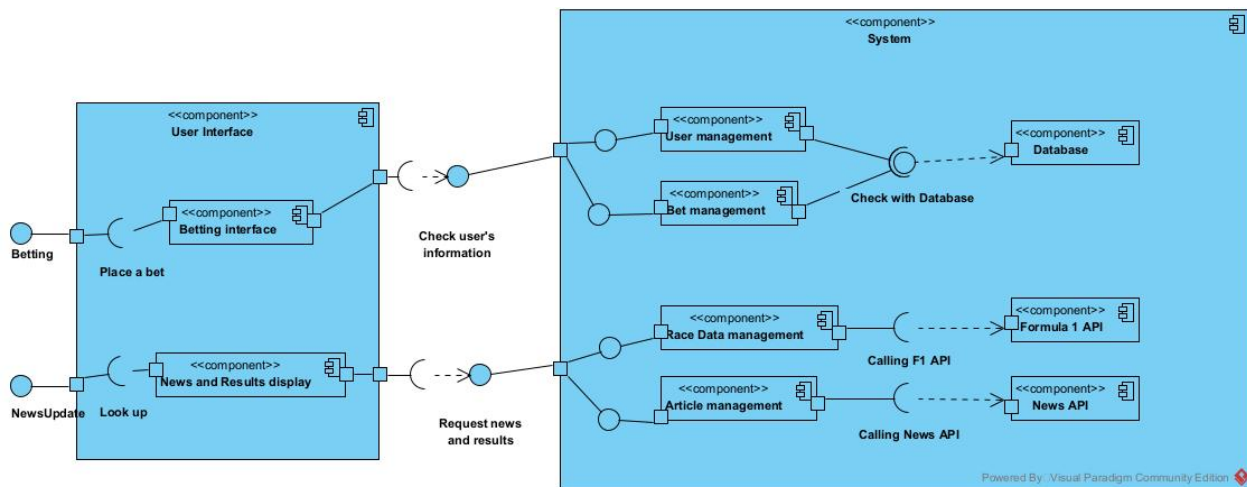
Wireframes:

#14: This an image with different wireframes. We have wireframes on the main page, the betting page, the teams page and the drivers page. **Antoine DUPONT, Paul HU, Alexandre GUILLOIS**
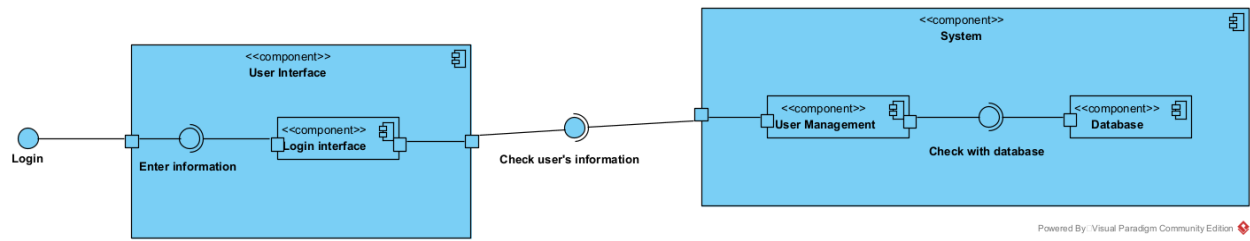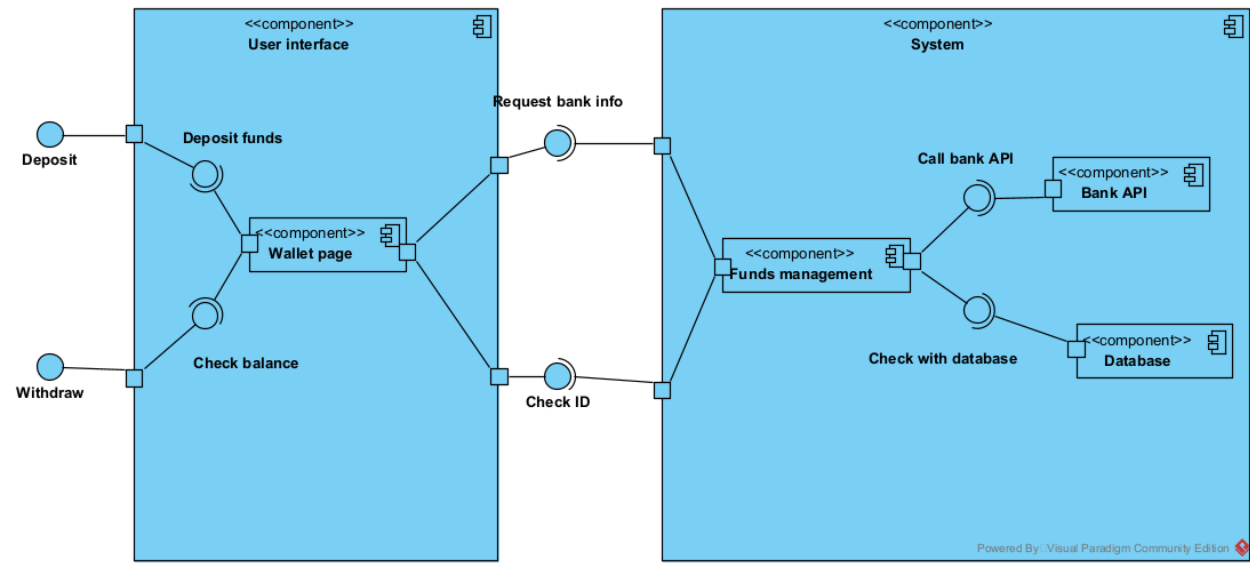

Component Diagrams:

#15: This diagram is a component diagram about the website. **Paul HU**

#16: This diagram is a component diagram about user login. **Antoine DUPONT**
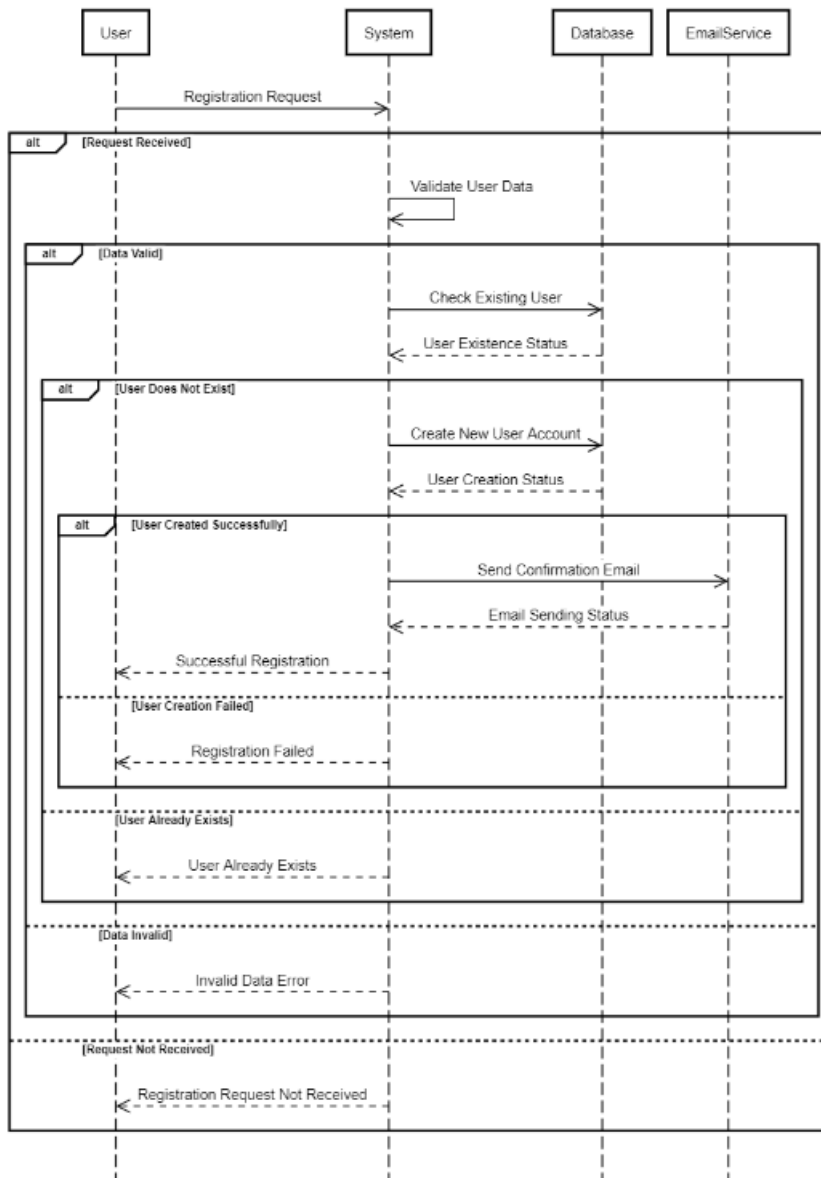

#17: This diagram is a component diagram about deposit and withdraw. **Alexandre GUILLOIS**
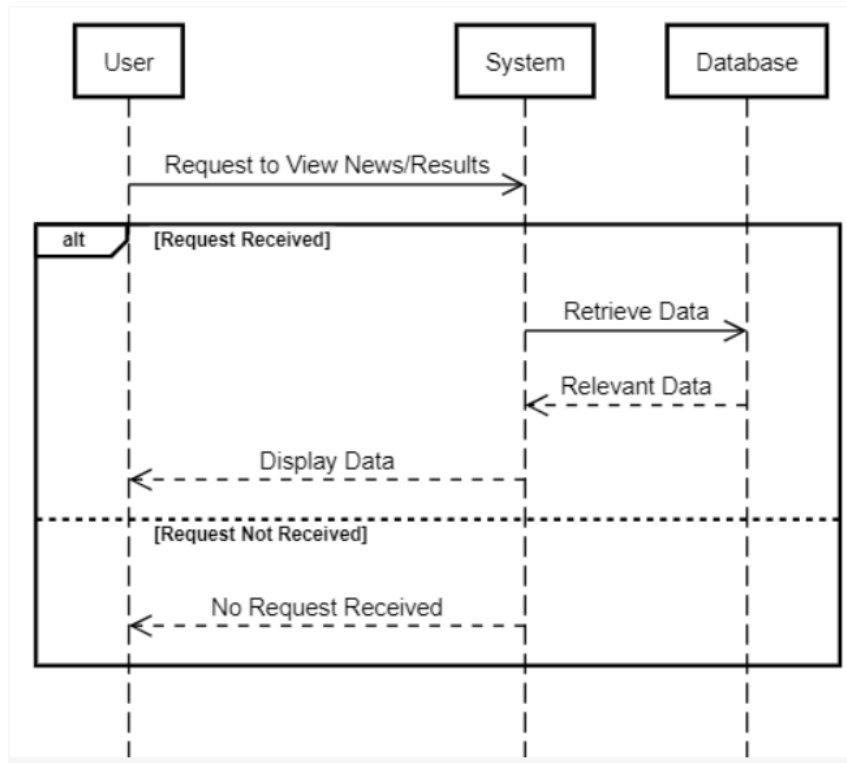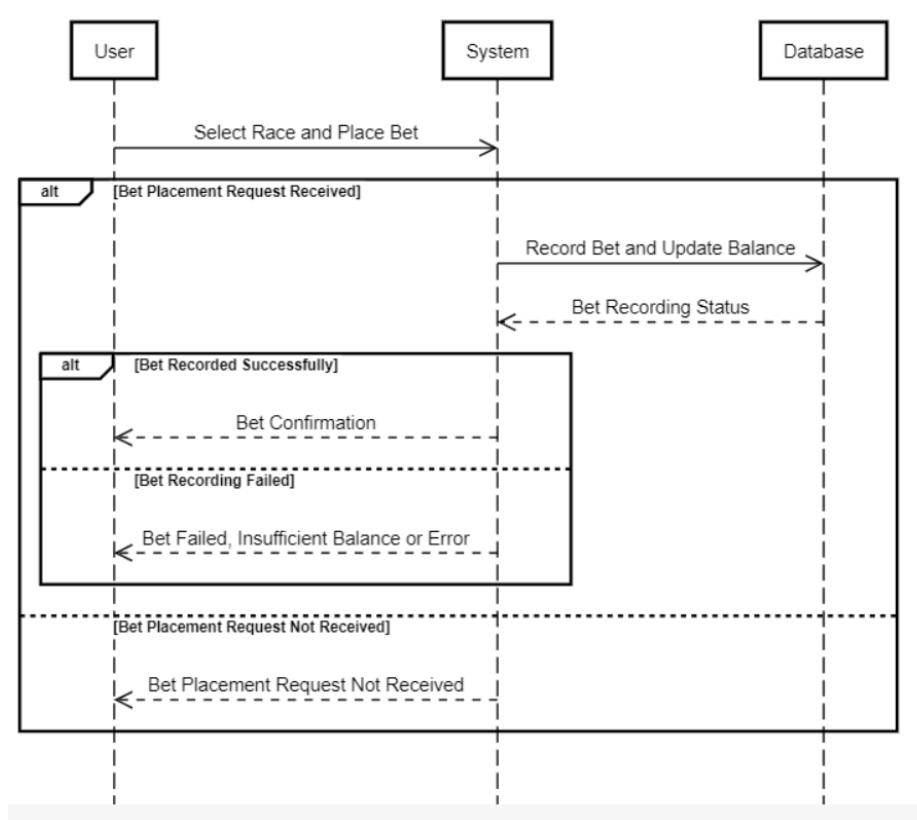
Sequence Diagrams:

#18: This diagram is a sequence diagram about user registration. **Paul HU**

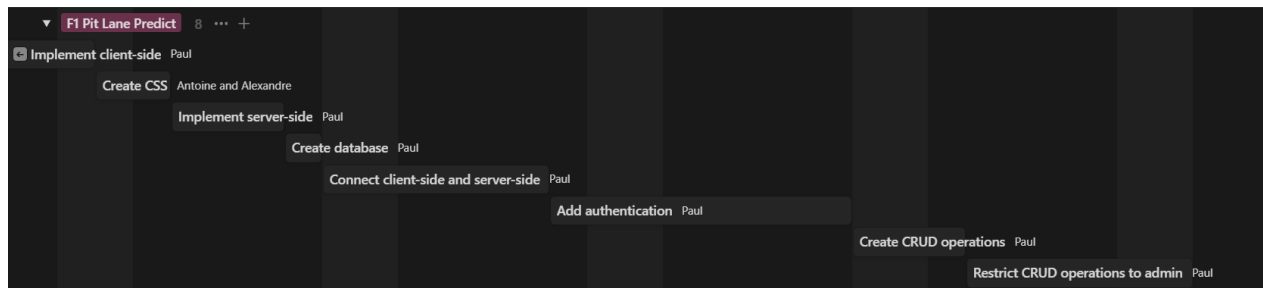*#19: This diagram is a sequence diagram about viewing news and results.* **Antoine DUPONT**

#20: This diagram is a sequence diagram about placing a bet on the website. **Alexandre GUILLOIS**

Gantt diagram (actual):

#21: This is the actual Gantt Diagram concerning our project, it has been done on Notion and signals who worked where. **Paul HU**

Aa Name	☰ Category	✴ Status	📅 Date	☰ Assigned too
Implement client-side	F1 Pit Lane Predict	● Done	November 1, 2023 → November 4, 2023	Paul
Create CSS	F1 Pit Lane Predict	● Done	November 5, 2023 → November 6, 2023	Antoine and Alexandre
Implement server-side	F1 Pit Lane Predict	● Done	November 7, 2023 → November 9, 2023	Paul
Create database	F1 Pit Lane Predict	● Done	November 10, 2023	Paul
Connect client-side and server-side	F1 Pit Lane Predict	● Done	November 11, 2023 → November 16, 2023	Paul
Add authentication	F1 Pit Lane Predict	● Done	November 17, 2023 → November 24, 2023	Paul
Create CRUD operations	F1 Pit Lane Predict	● Done	November 25, 2023 → November 27, 2023	Paul
Restrict CRUD operations to admin	F1 Pit Lane Predict	● Done	November 28, 2023 → December 3, 2023	Paul

Class diagram:

#22: This is a class diagram linking each class of our code. **Paul HU**

Users

userId
username
email
password
balance
createdAt
lastLogin
country
userType

createUsers()
readUsers()
updateUsers()
deleteUsers()

Results

resultId
raceId
driverId
position
points

createResults()
readResults()
updateResults()
deleteResults()

Drivers

driverId
code
permanentNumber
givenName
familyName
dateOfBirth
nationality
url
driverImage
teamId

createDrivers()
readDrivers()
updateDrivers()
deleteDrivers()

Bets

betId
userId
raceId
driverId
amount
odds
betStatus
createdAt

createBet()
createOdds()
updateBet()
updateOdds()
readBets()
readOdds()
deleteBets()
deleteOdds()

Races

raceId
season
round
raceName
circuitId
circuitName
locality
country
date
time
url

createRaces()
readRaces()
updateRaces()
deleteRaces()

Teams

teamId
name
nationality
url
teamLogo
Drivers

createTeams()
readTeams()
updateTeams()
deleteTeams()