USER'S GUIDE

OMNIBOARD EDITOR

THE OMNIBOARD TEAM

SUMMARY

THE OMNIBOARD TEAM

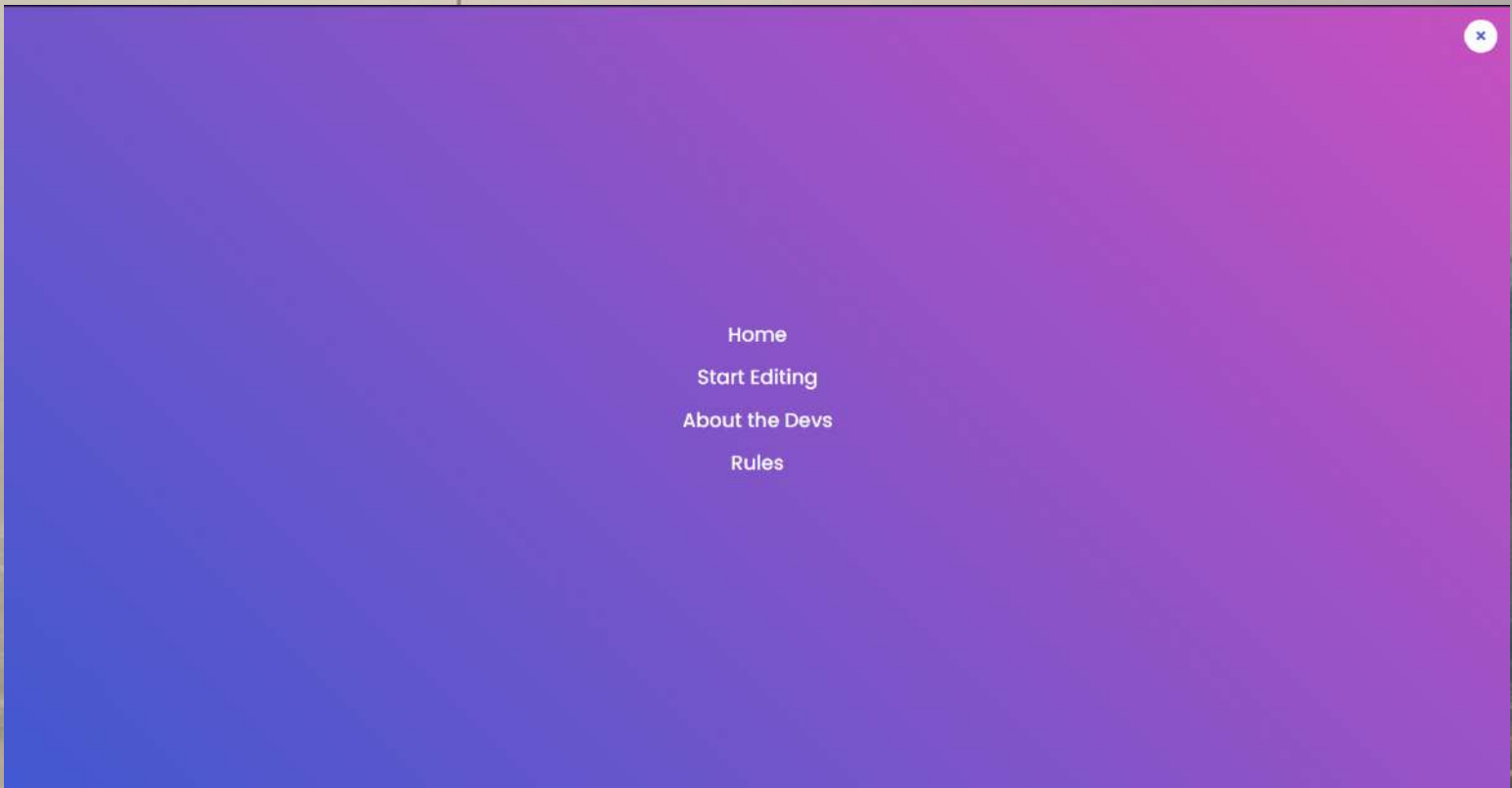**OmniBoard Editor**

This is the hompage, it is where the user arrives when entering the web application.
It has no content exept for the hamburger menu on the top right corner.
When clicked the menu appears with a "loop-in" effect.

THE MENU

Home
Start Editing
About the Devs
Rules

This is the menu after clicking on it, it allows the user to navigate through the application. It gives access to :
- the "About the Devs" page (quick summary of the team)
- the "Editing" page (where the user can edit it's pinball field
- the "Rules" page (where possible rules are displayed and different informations about pinballs)
To exit the menu just click on the cross (top right corner)

ABOUT THE DEVS

About

The interface of the OmniBoard Editor project was realized by four students of the computer science department of the IUT of Vannes. The goal of this project is to design a game editor for a pinball machine so that the user can create his own pinball machine.

Our Team

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This page gives simple informations about the developing team. It also makes the menu navigation possible again by clicking again of the hamburger menu on the top right corner.

THE RULES

List of Items

The bumpers : They are round mushrooms which, when touched, will immediately push the ball away. There are usually 3 of them on a game board, sometimes more, sometimes less depending on the effect sought by the creator of the machine ;

Kickers and Slingshots : these are devices similar to bumpers but their shape is rectilinear and they are located on the sides of the playing area. Each recent machine has at least one pair of slingshots located just above the pair of pinball machines; older games use more experimental layouts;

Ramps : The player tries to direct the ball with enough force toward the ramp so that it will go over the top of the ramp. The ramps are most often arranged so that the ball comes back directly to the pinball machine which allowed it to pass over the top of the ramp. in such a way that it is possible to chain them together and thus accumulate an increasing number of points ;

Fixed targets (or targets) : these are static targets that simply record contact with the ball. It is the simplest element of the game board;

The drop targets : they are targets which disappear under the board when they are hit. Hitting a complete set of them often allows to progress in the game. When an entire row of drop targets has been hit, it usually returns to its initial position;

The holes : The player must direct his ball towards the holes. These are sometimes connected together and a mechanism will allow the ball to pass from one to the other. On older games, there is a type of hole called "gobble hole" which gives a considerable number of points. but does not give back the ball ;

The spinners : A ball can pass through this small door which has an axis in its center to make it turn on itself. Each rotation assigns points to the player;

The additional pinball machines : Some machines have other pinball machines in addition to those located at the bottom of the board. Depending on the machine, the pinball machines on the same side will be activated at the same time or with separate controls;

Topper : A temporary obstacle (sometimes called a "magic pestle"), which comes out of the board, between the two pinball machines, and which has the advantage of preventing the ball from falling into the central outlet. It is often activated by hitting one or more targets. Its deactivation occurs after a certain delay.

This page allows the user to see the different components of a pinball as well as a small description of thos components.
Navigating through the rules is done by clicking on the white circles at the botom left corner of the white box.
The menu button is available on the top right corner of the page

THE RULES

Possible List of rules (bear in mind that the points may differ given the input and the value of the multiplier):

1) The ball hits a bumper: 2000 pts

2) The ball hits a slingshot: 1000 pts

3) The ball hits n times a bumper: n*250 pts + 5000 pts

4) The ball makes 3 falling targets fall: 1 bonus ball + stopper (10s)

5) The ball passes in sun spinner: 4000 pts

6) The ball hits a fixed target: 500 pts.

7) The ball hits a falling target: 1000 pts

8) The ball hits 2 falling targets in less than 30 seconds: 1500 pts.

9) The ball hit all the falling targets: 5000 pts + stopper (10s)

10) The ball hit all the fixed targets: 5000 pts + stopper (10s)

11) The ball hit all the targets: 10 000 pts + stopper (20s)

12) The ball passes over a rollover: 1000 pts

13) The ball goes through a hole: 1000 pts

14) The ball touches each rollover: 4000pts

15) The ball is passed in all the holes: 6000 pts + stopper (10s)

16) The ball reaches a spinner: 1000 pts

17) The ball performs n rotation in the spinner: n*2000 pts

18) The ball crosses the ramp: 10 000 pts + stopper (10s) + 1 bonus ball

19) The ball hits a green target: 100 pts.

20) The ball hits a yellow target: 200 pts

21) The ball hits a red target: 500 pts.

22) The ball hits all the green targets: 1000 pts.

23) The ball hits all the yellow targets: 2000 pts.

24) The ball touches all the red targets: 5000 pts + stopper (5s)

25) The ball hits a pinball: 100 pts

This page proposes possible rule slots that can be applied the the user's pinball field edition. It's the first page out of two.

THE RULES

Possible List of rules (bear in mind that the points may differ given the input and the value of the multiplier) :

26) A bonus ball comes into play: 500 pts.

27) The player doesn't lose a ball during a 1min delay: 1000 pts.

28) The player does not lose a ball during a 2min delay: 2000 pts.

29) The player does not lose a ball during a 5min delay: 5000 pts.

30) The player does not lose a ball during a 10min delay: 10 000 pts.

31) The ball hit all the bumpers: 3500 pts.

32) The ball hit all the slingshots: 3500 pts

33) The ball hits successively a slingshot and a bumper: 2500 pts

34) The ball hits successively a fixed target and slingshot: 2500 pts.

35) The ball hits successively a fixed target and a bumper: 2500 pts.

36) The ball hits successively a falling target and a slingshot: 2500 pts.

37) The ball hits successively a falling target and a bumper: 2500 pts.

38) The ball hits successively a falling target and a fixed target: 2500 pts.

39) The ball is returned from an extra pinball: 100 pts + 50 pts if it is a bonus ball.

40) The ball falls into the hole: extra pinball machines disabled for 10s

41) A bonus ball crosses the ramp: 15 000 pts + bonus ball + stopper (30s)

42) The ball follows a crawl then reaches a hole directly without touching another obstacle: 4000 pts.

43) The player beats or equals the point record on the pinball machine: 2 bonus balls.

44) The ball hits successively a spinner and a bumper: 2500 pts.

45) The ball hits successively a spinner and a fixed target: 2500 pts.

46) The ball hits successively a spinner and a falling target: 2500 pts.

47) The ball hits successively a spinner and a slingshot: 2500 pts.

48) The ball hits successively a bumper then a slingshot: 2500 pts.

49) The age of the player is less than 10 years old: a bonus ball.

50) The score of the player is 0 when the first ball falls in the hole: a bonus ball.

This page proposes another possible rule slots for the user to follow on his edition. It's the second page out of two.

THE RULES

About Pinball:
A pinball machine is an electro-mechanical coin-operated game whose principle is to score points by directing one or more metal balls onto a game board, separated from the player by a glass.

Main goal in a pinball game:
The main goal of the pinball game is to achieve the highest score.

Side goals in a pinball game: The secondary goal is to play as long as possible by avoiding that the ball goes out of the game board (possibly by getting extra balls, called extra ball, sometimes even simultaneous on some models) and to win free games (replay).

A little history: This type of game was very successful from the 1950's to the 1990's, to the point of entering the popular culture. Most cafés offered it to their customers. There were also specialized game rooms.

This page presents additional information about pinball, such as a bit of history, the main goals and the side goals.

THE EDITING PAGE

D1

D2

D3

This page is the main page of the website. Its purpose is to make available different components for the user to edit his playfield and edit rules that he can create.
Numerous options are available on the menu of the left hand side (D1).

The center of the the page (D2) is where the elements will be displayed when they are added. They can be dragged and dropped around the image.

The right-hand side of the page (D3) is where the information about the elements and the rules are displayed and edited. Once an element is added it's information will appear under the Info panel. Once a rule is added it will be displayed under the Rule panel

THE EDITING PAGE MENU SIDE

File :

Load background

Import rules

export image ☐

Export rules

Elements :

Add Bumper

Add Kicker/Slingsho

Add Ramp

Add Target

Add Drop Target

Add Hole

Add Spinner

Add Switch

Delete Element

The menu panel is meant to allow the user to do multiple things :

On the File section :
  -Export Rules: exports in JSON format the current state of the application with the elements, the rules, the image

  -Load Background : loads a boackground (the user then needs to click on the submit button)

  -Import Rules : loads a JSON file that has the same format as the exported one (the user need to submit it)

  -Checkbox (export image): if the user checks this button, the image will also be exported in the JSON file after clicking Export Rules.

On the Elements section :
  - Add ... : adds the element on the playfield. The elements information are displayed on the Info panel.

  -Delete Element : deletes the selected element

THE EDITING PAGE
THE PLAYFIELD

When the user adds and element it is displayed on the image. The user can then drag and drop the element where he wants on the image. Here we have a Bumper (B), a Hole (H) and a Drop Target (D). Each element is then added to the -soon to be exported- data structure.
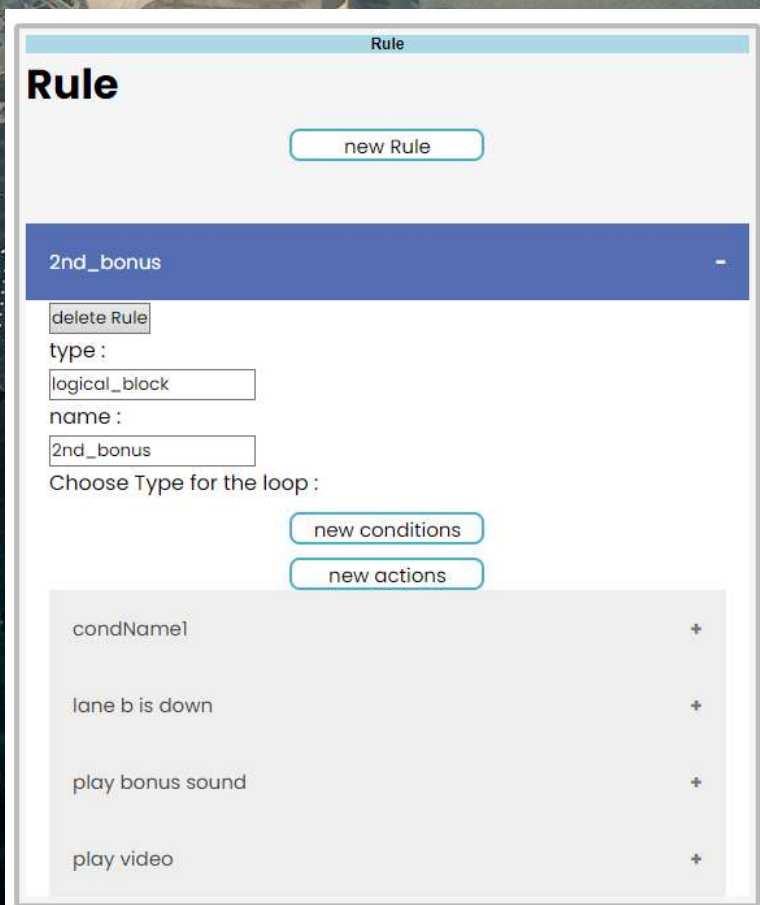
THE EDITING PAGE - THE INFO PANEL

When the user adds an element, it's information will be displayed on the Info panel.
The name is editable, the coordinates are not. In order to change them the user has to drag and drop the element somewhere else.

THE EDITING PAGE -
THE RULE PANEL

Rule

new Rule

2nd_bonus   +

The user can add rules by clicking the "new Rule" button.
It then displays the rule as so :

Rule

Rule

new Rule

2nd_bonus   -

delete Rule
type :
logical_block
name :
2nd_bonus
Choose Type for the loop :

new conditions
new actions

condName1   +

lane b is down   +

play bonus sound   +

play video   +

The user can choose :
-the rule's type
-the rule's name

Then the user can add a :
-new condition
-new action

Or he can delete the rule by clicking the "delete Rule" button.

Here there are 2 conditions :
-target_hit
-lane b is down

THE EDITING PAGE - CONDITION BLOCK


```
condName1                                    -

delete
name :
condName1
input :
conditional_block v
lane b is down v

operation :
not_equals      v
value :
condition1
addCondition  delete Condition
-----------------------------------------------
name :
lane a is down
input :
variable        v
condName1   v
true
operation :
value_changed v
value :
51
add Condition  delete Condition
-----------------------------------------------
```

When the user clicks on the dropdown "target_hit" the conditionset appears.
The user can :
-edit the condition's name
-select an input
-select an operation
-select a value

The user can also add another condition inside the "condName1" condition and edit the same parameters.

The user can delete the condition by clicking on the "delete Condition" button. This will delete the whole conditional_block.

THE EDITING PAGE - ACTION BLOCK

play bonus sound

delete

name :

play bonus sound

action :

play

choose action block

output :

null

value :

value

bonus.mp3

param :

test

addAction | delete Action

- -

name :

flash_lamp_1

action :

flash

choose action block

output :

null

value :

on

param :

test

add Action | delete Action

- -

When the user clicks on the dropdown "play bonus sound" the actionset appears.
The user can :
-edit the action's name
-select an action
-select an output
-select a value
-select a parameter

The user can also add another action inside the "play bonus sound" condition and edit the same parameters.

The user can delete the condition by clicking on the "delete action" button. This will delete the whole conditional_block.

THE EDITING PAGE - OVERVIEW
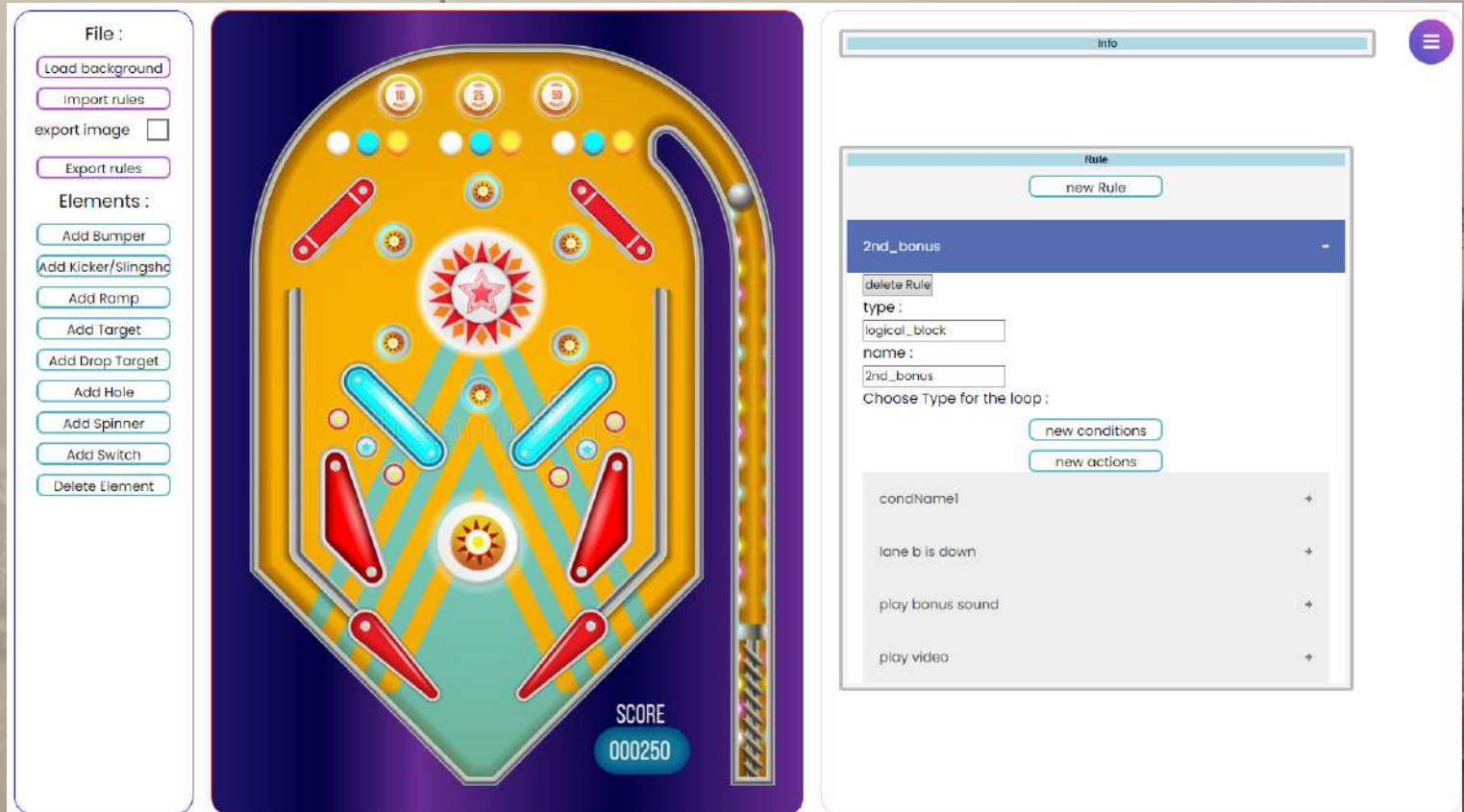
Once the user is satisfied with his edited ruleset he can either:
-close his web explorer
-export his ruleset and image as a JSON file
-start all over again not saving anything

If the user leaves it's explorer he can always come back later and recover what he did thanks to the local storage we're using to keep track of all data we're manipulating.
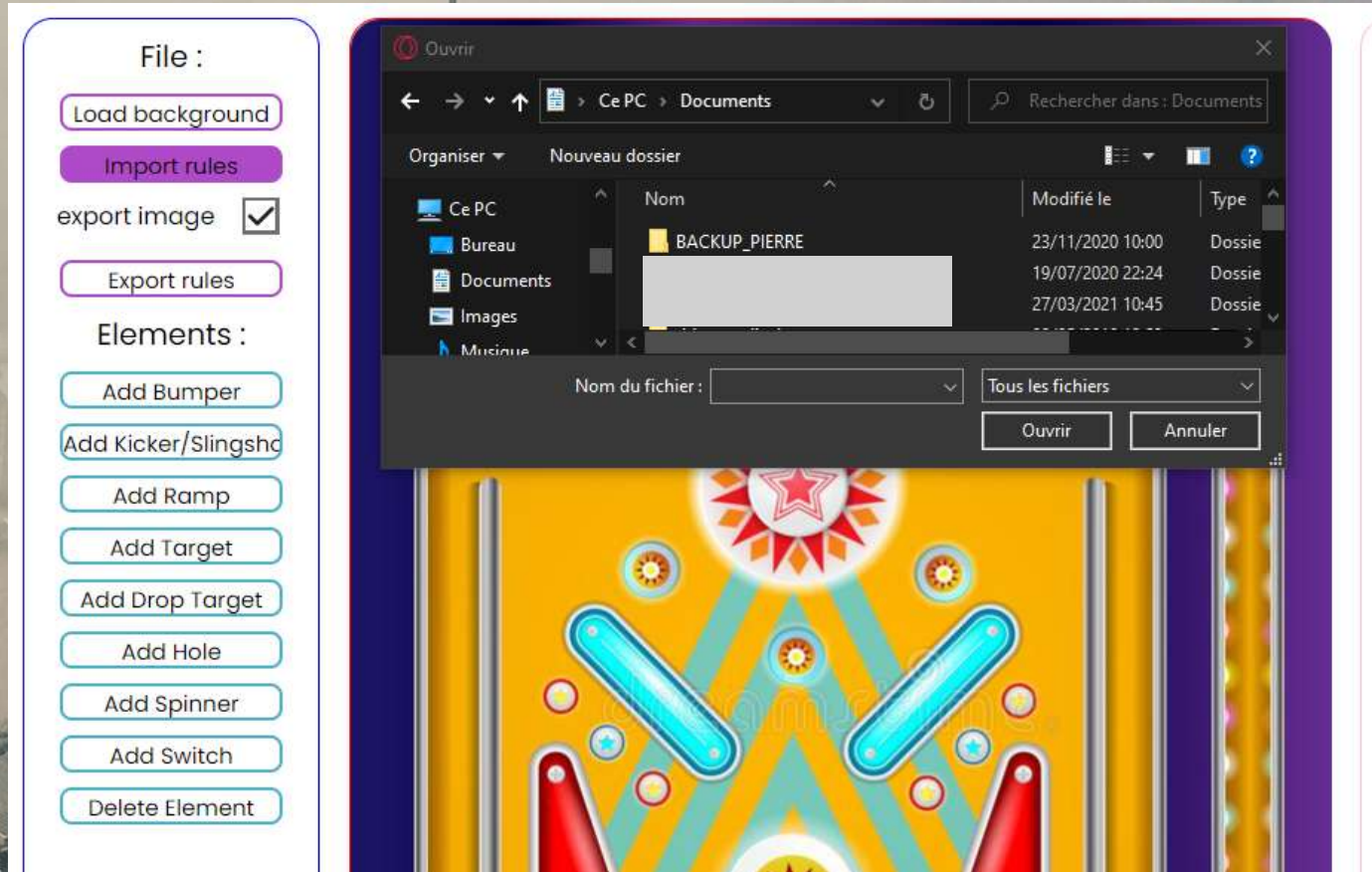
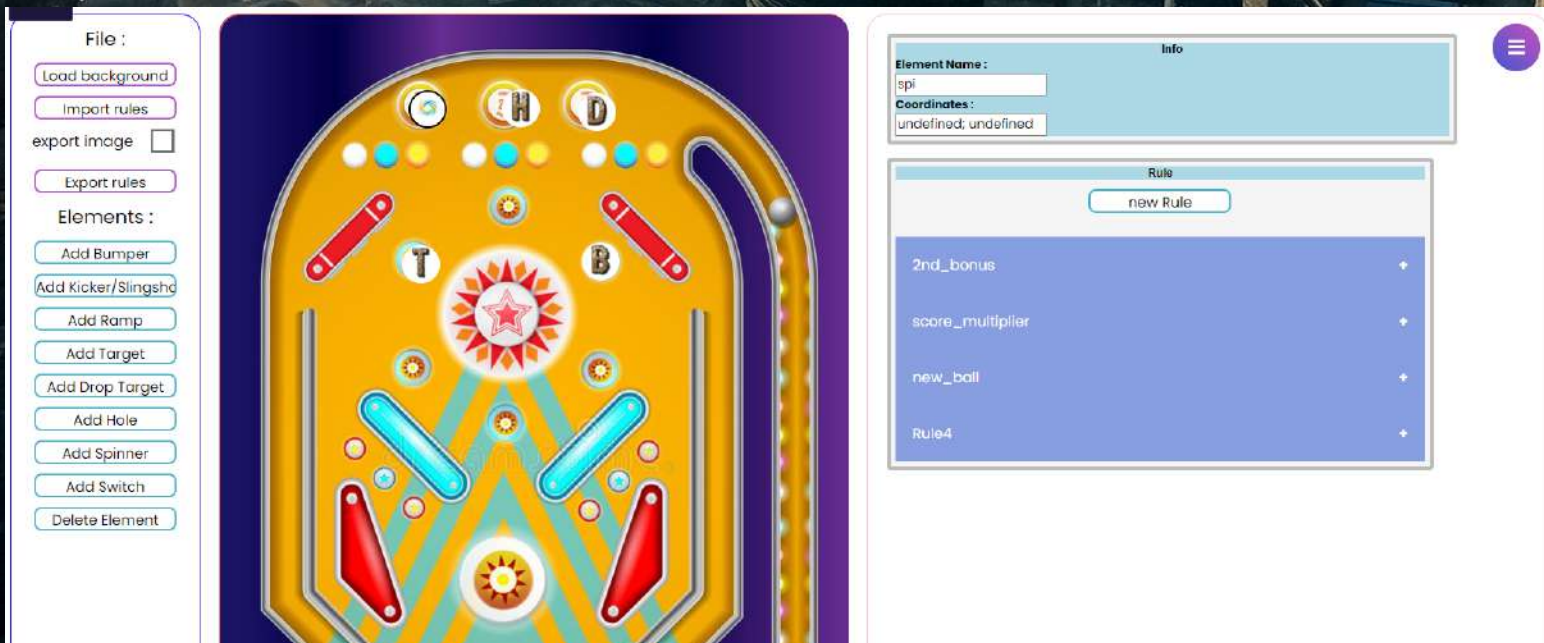If he decides to export his JSON file an alert will appear :
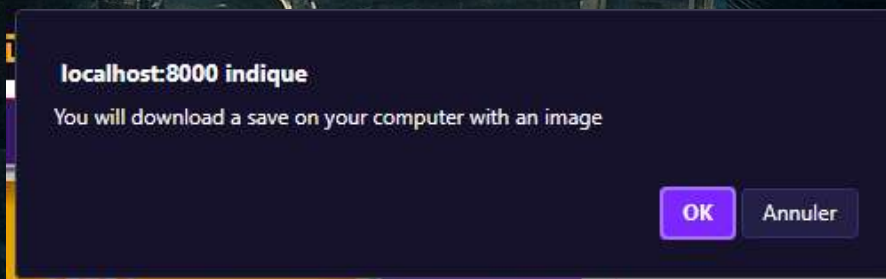
Clicking on "OK" will launch the download, clicking "Annuler" will cancel it.

THE EDITING PAGE - IMPORTING A JSON FILE

To import a JSON file the user will have to load a file with his file explorer pop-up:

After downloading it, the user can import it by selecting the right JSON file, and see that his work is back on track !

THANK YOU !

By :
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Baptiste Meauze - Head of Testing
Mathis Meric-Pons - Head of Communication