

# Bad Code

[GitHub repo](#)

Release Version	Release Date	Contributors	Status	Platform
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## Description

This application was made for a professor in IT development. This one was tired of correcting badly written code so he decided to impose sanctions on those not respecting good programming practices.

This application is therefore used to manage several classes with different types of sanctions in order to manage all of this.

## Features

### Navigation

Feature	Detail
Navigation between the six headings	Navigation bar: Displays the default view of each section.

### 1. Classes management

Feature	Detail
Displaying the list of classes	Default view, table of 6 columns: <ul style="list-style-type: none"><li>• Name</li><li>• Year</li><li>• Apprenticeship or not</li><li>• Specialization</li><li>• User</li><li>• Sanction affiliated to the class</li></ul>
Displaying the creation view	Switch between classes list view and class creation.

Feature	Detail
Creation	Form with 6 fields : <ul style="list-style-type: none"> <li>• Name: text field • Year: text field (4 digit)</li> <li>• Rhythm: check box if apprentice class</li> <li>• Specialization: text field</li> <li>• Sanction: drop-down list</li> <li>• User: drop-down list</li> </ul>
Back to the list from creation	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: add to the database</li> <li>• Return: cancel the current process</li> </ul>
Displaying the edit view	Switch between classes list view and class edition.
Edition	Pre-filled form with 6 fields: <ul style="list-style-type: none"> <li>• Name: text field</li> <li>• Year: text field (4 digit)</li> <li>• Rhythm: check box if apprentice class</li> <li>• Specialization: text field</li> <li>• Sanction: drop-down list</li> <li>• User: drop-down list</li> </ul>
Back to the list from the edition	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: update in the database</li> <li>• Return: cancel the current process</li> </ul>
Deletion	Remove a class from database.
Refreshing the list	Refresh classes list.

## 2. Students management

Feature	Detail
Displaying the list of students	Default view, table of 6 columns: <ul style="list-style-type: none"> <li>• First name</li> <li>• Last name</li> <li>• E-mail</li> <li>• Total of "bad code"</li> <li>• Total of champagne bottles :champagne:</li> <li>• Class</li> </ul>
Search bar	Search on the first name in the list, select the first result corresponding to the search.
Add a bottle :champagne: in total	Add one bottle :champagne: to one student.
Remove a bottle :champagne: in total	Remove one bottle :champagne: to one student.
Displaying the creation view	Switch between students list view and student creation.
Creation	Form with 5 fields: <ul style="list-style-type: none"> <li>• First name: text field</li> <li>• Last name: text field</li> <li>• E-mail: text field</li> <li>• Class: drop-down list</li> <li>• Profile photo: file browser</li> </ul>

Feature	Detail
Back to the list from creation	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: add to the database</li> <li>• Return: cancel the current process</li> </ul>
Displaying the edit view	Switch between students list view and student edition.
Edition	Pre-filled form with 6 fields: <ul style="list-style-type: none"> <li>• First name: text field</li> <li>• Last name: text field</li> <li>• E-mail: test field</li> <li>• Total bottles: text field</li> <li>• Class: drop-down list</li> <li>• Photo: image display + file browser</li> </ul>
Back to the list from the edition	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: update in the database</li> <li>• Return: cancel the current process</li> </ul>
Deletion	Remove a student from database.
Add one deliverable	Add new deliverable to a student.
Refreshing the list	Refresh students list.

### 3. Sanctions management

Feature	Detail
Displaying the list of sanctions	Default view, table of 3 columns: <ul style="list-style-type: none"> <li>• Name</li> <li>• Description</li> <li>• User</li> </ul>
Displaying the creation view	Switch between sanctions list view and sanction creation.
Creation	Form with 3 fields: <ul style="list-style-type: none"> <li>• Name: text field</li> <li>• Description: text field</li> <li>• User: drop-down list</li> </ul>
Back to the list from creation	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: add to the database</li> <li>• Return: cancel the current process</li> </ul>
Displaying the edit view	Switch between sanctions list view and sanction edition.
Edition	Pre-filled form with 3 fields: <ul style="list-style-type: none"> <li>• Name: text field</li> <li>• Description: text field</li> <li>• User: drop-down list</li> </ul>
Back to the list from the edition	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: update in the database</li> <li>• Return: cancel the current process</li> </ul>
Deletion	Remove a sanction from database.

Feature	Detail
Refreshing the list	Refresh sanctions list.

## 4. Deliverables management

Feature	Detail
Displaying the list of deliverables	<p>Default view, table of 8 columns:</p> <ul style="list-style-type: none"> <li>• Due date</li> <li>• Subject</li> <li>• Audio recording (yes / no)</li> <li>• Video recording (yes / no)</li> <li>• Code file (yes / no)</li> <li>• Other deliverable file (yes / no)</li> <li>• Status</li> <li>• Student</li> </ul>
Search bar	Search on the name in the list, select the first result corresponding to the search.
Displaying the creation view	Switch between deliverables list view and deliverables creation.
Creation	<p>Display of the student's name, the name of the sanction affiliated to his class and his description.</p> <p>Form with 7 fields:</p> <ul style="list-style-type: none"> <li>• Subject: text field</li> <li>• Status: drop-down list</li> <li>• Due date: calendar</li> <li>• Audio recording: file browser</li> <li>• Video recording: file browser</li> <li>• Code file: file browser</li> <li>• Other deliverable file: file browser</li> </ul>
Back to the list from creation	<p>Two way to go back:</p> <ul style="list-style-type: none"> <li>• Submit: add to the database</li> <li>• Return: cancel the current process</li> </ul>
Displaying the edit view	Switch between sanctions list view and sanction edition.
Edition	<p>Display of the student's name, the name of the sanction affiliated to his class and his description.</p> <p>Pre-filled form with 7 fields:</p> <ul style="list-style-type: none"> <li>• Subject: text field</li> <li>• Status: drop-down list</li> <li>• Due date: calendar</li> <li>• Audio recording: file browser</li> <li>• Video recording: file browser</li> <li>• Code file: file browser</li> <li>• Other deliverable file: file browser</li> </ul>
Back to the list from the edition	<p>Two way to go back:</p> <ul style="list-style-type: none"> <li>• Submit: update in the database</li> <li>• Return: cancel the current process</li> </ul>
Deletion	Remove a sanction from database.

Feature	Detail
Refreshing the list	Refresh sanctions list.
Download	From edition, for each type of file, if a file is associated with the deliverable, a download button appears.

## 5. User interface

Feature	Detail
User information display	Default view, 5 fields: <ul style="list-style-type: none"> <li>• First name: text field</li> <li>• Last name: text field</li> <li>• E-mail: text field</li> <li>• Date of birth: label cannot be modified</li> <li>• Photo with file browser for instant modification</li> </ul>
Displaying the edit view	Switch between user view and user edition.
Edition	Pre-filled form with 4 fields: <ul style="list-style-type: none"> <li>• First name: text field</li> <li>• Last name: text field</li> <li>• E-mail: text field</li> <li>• Date of birth: label cannot be changed</li> </ul>
Back to information from the edition	Two way to go back: <ul style="list-style-type: none"> <li>• Submit: update in the database</li> <li>• Return: cancel the current process</li> </ul>

## 6. Settings

Feature	Detail
Display of current settings	Default view, 7 editable settings: <ul style="list-style-type: none"> <li>• Dark theme: switch button (instant update)</li> <li>• CSS file of the dark theme: file browser</li> <li>• CSS file of the default theme: file browser</li> <li>• Database file: file browser</li> <li>• Data backup folder: folder browser</li> <li>• Glade file: file browser</li> <li>• Terminal display: switch button (instant update)</li> </ul>
Update settings	Apply changes in conf file.

# Usage

## 1. Navigate between the sections

To access a specific section, click on the corresponding button on the menu bar, under the application logo.



## 2. Classes

### a. Consult the classes list

The list of existing classes is the default view of the section. For each of the classes, we can see in the table:

- Her name
- The year of graduation
- Apprenticeship status
- The specialisation
- The name of the user who created it
- The associated sanction

By clicking on the name of a column, it is then possible to sort this list in alphabetical or reverse alphabetical order.

Classes		Students	Sanctions	Deliverables	User	Settings
Name	Year	Apprenticeship	Major	User		Sanction
2A	2021	Yes				Exposé clean code
2A	2021	Yes				Correction tableau

## b. Create class

To create a class, click on the "Create" button at the bottom of the window. A form appears, allowing you to add the necessary information:

- His name: required field
- Year of diploma: 4 required digit
- Apprenticeship status
- The specialisation
- The name of the user who created it
- The associated sanction

To submit creation, click on the "Submit" button at the bottom of the page. To cancel, click on the "Return" button. In both cases, the list of classes is then displayed.

In case of validation of the creation, the new class will be present in the list.

Classes	Students	Sanctions	Deliverables	User	Settings
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**Name :**

**Year :**  - +

**Apprenticeship :** ☐

**Major :**

**Sanction :**

**User :**

## c. Edit class

To update a class and access the edit interface, two solutions are possible: double-click on the desired line, or select it the first time with a single click, then press the Enter key.

The edit interface is displayed: it is very similar to the creation interface, except that the fields are pre-filled with the current information of the selected class.



Classes

Students

Sanctions

Deliverables

User

Settings

**Name :**

2A2

**Year :**

2021

—

+

**Apprenticeship :**

☒

**Major :**

**Sanction :**

Correction tableau ▾

**User :**

✓ Submit

↶ Return

## d. Delete class

To delete a class, you must first select it, then click the "Delete" button at the bottom of the window.

## e. Refresh classes list

To refresh the classes list, click on the "Refresh" button at the bottom of the window.

# 3. Students

## a. Consult the students list

The list of existing students is the default view of the section. For each student, we can see in the table:

- His first name
- Her name
- His e-mail address
- His total bad codes
- The number of bottles of champagne he must give as an offering
- His class

By clicking on the name of a column, it is then possible to sort this list in alphabetical or reverse alphabetical order.

A search bar is also available on the left of the menu, allowing you to perform a search on first names: the first line corresponding to the search is then selected.

Classes

Students

Sanctions

Deliverables

User

Settings

First name	Last name	Email	Bad Code Count	Bottles	Class
Cé	A	all@gmail.com	1	2	2A2
En		en@gmail.com	0	1	2A2
Th	GAMA	ga@gmail.com	1	0	2A2
Cle	D	cle@gmail.com	0	0	2A2
Sy	CHER	sb@gmail.com	0	0	2A2
Al	N	ak@gmail.com	0	2	2A2
Th		tbr@gmail.com	0	2	2A2
Jo		cas@gmail.com	0	1	2A2
Ma	ERE	mc@gmail.com	0	0	2A2
Sh	AY	sh@gmail.com	0	0	2A2
Ba	CHE	ba@gmail.com	0	0	2A2
Ma	CIO	ma@gmail.com	1	0	2A2
Co		ese@gmail.com	0	0	2A2
Ar		fev@gmail.com	0	0	2A2
Hu		hfr@gmail.com	0	0	2A2
No	AU	no@gmail.com	0	0	2A2
Lo	FF	au@gmail.com	0	0	2A2

- Bottle

+ Bottle

+ Add deliverable

- Delete

+ Create

Refresh

## b. Create student

To create a student, click on the "Create" button at the bottom of the window. A form appears, allowing you to add the necessary information:

- His first name: compulsory
- His name: compulsory
- His e-mail address: mandatory
- His class
- His profile photo: only image formats are accepted.

The profile photo can be added from this interface using the file browser: a copy of the original photo will then be saved in a specific folder in the application. Once the file selected, it is then possible to click on the button with a cross allowing to cancel the choice. If no profile photo is selected, a default image will be assigned.

To submit creation, click on the "Submit" button at the bottom of the page. To cancel, click on the "Return" button. In both cases, the list of students is then displayed: in case of submmit of the creation, the new student will be present in the list.

Classes

Students

Sanctions

Deliverables

User

Settings

**First name:**

**Last name :**

**Email :**


**Class :**


2A1

▼

**Profil picture :**

(Aucun)





✓ Submit

↩ Return

## c. Edit student

To update a student and access the edit interface, two solutions are possible: double click on the desired line, or select it the first time with a single click, then press the Enter key.

The edit interface is then displayed: this is similar to the creation interface, with the difference that the fields are pre-filled with the current information of the selected student, the resized photo of the student is displayed.

A text field allows manual modification of the number of champagne bottles :champagne:. It is also possible to change this number directly via the student list: to do this, select the appropriate line then click on the "+ Bottle":champagne: or "- Bottle":champagne: buttons (the number of bottles :champagne: cannot be negative).

Classes

Students

Sanctions

Deliverables

User

Settings

**First name:**

**Last name :**

**Email :**

**Bottles :**

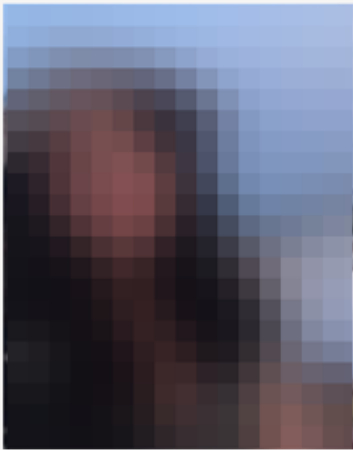
-

+


**Class :**

2A2

▼



(Aucun)



✓ Submit

↶ Return

## d. Delete student

To delete a student, you must first select their line, then click on the "Delete" button at the bottom of the window.

All the files and folders associated with this student (photos, deliverables, etc.) are then deleted.

## e. Refresh students list

To refresh the students list , click on the "Refresh" button at the bottom of the window.

# 4. Sanction

## a. Consult the sanctions list

The list of existing sanctions is the default display of the section. For each of the sanctions, we can see in the table:

- Her name
- Its description
- The name of the user who created it

By clicking on the name of a column, it is then possible to sort this list in alphabetical or reverse alphabetical order.

Classes

Students

Sanctions

Deliverables

User

Settings

Name	Description	User
Exposé clean code	Choisir un chapitre du livre "clean code" et faire une présentation dessus en classe	
Correction tableau	Corriger son code et le présenter au tableau	
Exercice	Faire l'exercice parmi une liste (ou pas) de choix à rendre / présenter	
Cloche	Faire le tour de la salle de classe 4x à cloche pied	

- Delete

+ Create

↻ Refresh

Classes	Students	Sanctions	Deliverables	User	Settings
---------	----------	-----------	--------------	------	----------

**Name :**

**Description**

**User :**

### c. Edit sanction

To update a sanction and access the edit interface, two solutions are possible: double-click on the desired line, or select it the first time with a single click, then press the Enter key.

The edit interface is then displayed: it is in all respects similar to the creation interface, with the difference that the fields are pre-filled with the current information for the selected sanction.

Classes Students **Sanctions** Deliverables User Settings

**Name :**

**Description :**

**User :**

Submit Return

## d. Delete sanction

To delete a sanction, you must first select its line, then click on the "Delete" button at the bottom of the window.

## e. Refresh sanctions list

To refresh the sanctions list , click on the "Refresh" button at the bottom of the window.

# 5. Deliverables

## a. Consult the deliverables list

The list of existing deliverables is the default view of the section. For each of the deliverables, we can see in the table:

- Its scheduled delivery date
- His subject
- If there is, or not an audio recording
- If there is, or not a video recording
- If there is, or not a bad code file
- If there is, or not another type of file (PDF, PowerPoint, Word, Archive...)
- Its status: "pending", "finished", ...
- The concerned student

A search bar is also available on the left of the menu, allowing you to perform a search on the names of the students. The first line corresponding to the search is then selected.

## b. Create deliverable

A form appears, it recalls the non-modifiable information (the name of the student, the name of the sanction associated with his class and the description of it) and allows you to add the necessary information:

- Once a file is selected, it is then possible to click on the button with a cross allowing to cancel the choice. Otherwise, a copy of the original files will then be saved in a folder specific to the application.

To submit creation, click on the "Submit" button at the bottom of the page. To cancel, click on the "Return" button. In both cases, the list of deliverables is then displayed.



In case of validation of the creation, the new deliverable will be present in the list.

ClassesStudentsSanctionsDeliverablesUserSettings

Sy [REDACTED] CHER

**Correction tableau**

**Subject :**

**Status :**

To do

**Due date :**

< février > < 2020 >  
lun. mar. mer. jeu. ven. sam. dim.  
27 28 29 30 31 1 2  
3 4 5 6 7 8 9  
10 11 12 13 14 15 16  
17 18 19 20 21 22 23  
24 25 26 27 28 29 1  
2 3 4 5 6 7 8

**Audio file :**

(Auc...

**Bad Code file :**

(Auc...

**Video file :**

(Auc...

**Deliverable file :**

(Auc...

✓ Submit

↶ Return

## c. Edit deliverable

To update a deliverable and access the edit interface, two solutions are possible: double-click on the desired line, or select it the first time with a single click, then press the Enter key. The edit interface is then displayed.

It is in all respects similar to the creation interface, with the difference that the fields are pre-filled with the current information for the selected sanction.

In addition, if a file is already associated with the deliverable, it is then possible to download a copy at the location chosen by the user via the download interface.

Classes
Students
Sanctions
Deliverables
User
Settings

Thi
MA

**Subject :**

**Status :**

To do

**Due date :**

< février >


< 2020 >

lun.	mar.	mer.	jeu.	ven.	sam.	dim.
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	1
2	3	4	5	6	7	8

**Correction tableau**


Corriger son code et le présenter au tableau

**Audio file :**


(Auc... 

↓

**Bad Code file :**


(Auc... 

**Video file :**

(Auc... 

↓

**Deliverable file :**

(Auc... 

✓ Submit

↶ Return

## d. Delete deliverable

To delete a deliverable, you must first select its line, then click on the "Delete" button at the bottom of the window.

## e. Refresh deliverable list

To refresh the deliverables list , click on the "Refresh" button at the bottom of the window.

# 6. User

## a. View user's information

User's information is the default view of the topic and consists of five fields:

- His first name
- Her name
- His email
- His date of birth
- His profil picture

His profil picture can be modified directly from this interface: only image formats are accepted. If a photo is added, a copy of the original photo will then be saved in a folder specific to the application, and the new image will be directly displayed at the correct size.

Classes	Students	Sanctions	Deliverables	User	Settings
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**First name :**

**Last name :**

**Email :**

**Birthdate :**



(Aucun) 

Edit

## b. Update user

To access the user edit interface, click on the "Edit" button: the edit interface is displayed, allowing you to modify the three required information (first name, last name and e-mail) .

The date of birth is obviously not changeable :nerd\_face: :champagne: :100:

Classes	Students	Sanctions	Deliverables	User	Settings
---------	----------	-----------	--------------	------	----------

**First name :**

**Last name :**

**Email :**

**Birthdate :**

✓ Submit

↩ Return

# 7. Settings

## a. Consult current settings

The settings section displays the global variables of the application, located in the configuration file:

- The current theme (dark or classic)
- The CSS file of the dark theme
- The CSS file of the classic theme
- The database file
- The application data backup folder
- The Glade file
- If the console is displayed or not

The screenshot shows the 'Settings' window of an application. At the top, there is a horizontal tab bar with tabs for 'Classes', 'Students', 'Sanctions', 'Deliverables', 'User', and 'Settings'. The 'Settings' tab is selected. Below the tabs, the settings are organized into several sections:

- Dark theme :** A toggle switch is currently turned off.
- Dark theme CSS :** A file selection button labeled 'gtk...' and a refresh icon.
- Default theme CSS :** A file selection button labeled 'gtk...' and a refresh icon.
- Database :** A file selection button labeled 'dat...' and a refresh icon.
- Show terminal :** A toggle switch is currently turned off.
- Storage :** A folder selection dropdown menu showing 'storage' and a refresh icon.
- Glade :** A file selection button labeled 'das...' and a refresh icon.

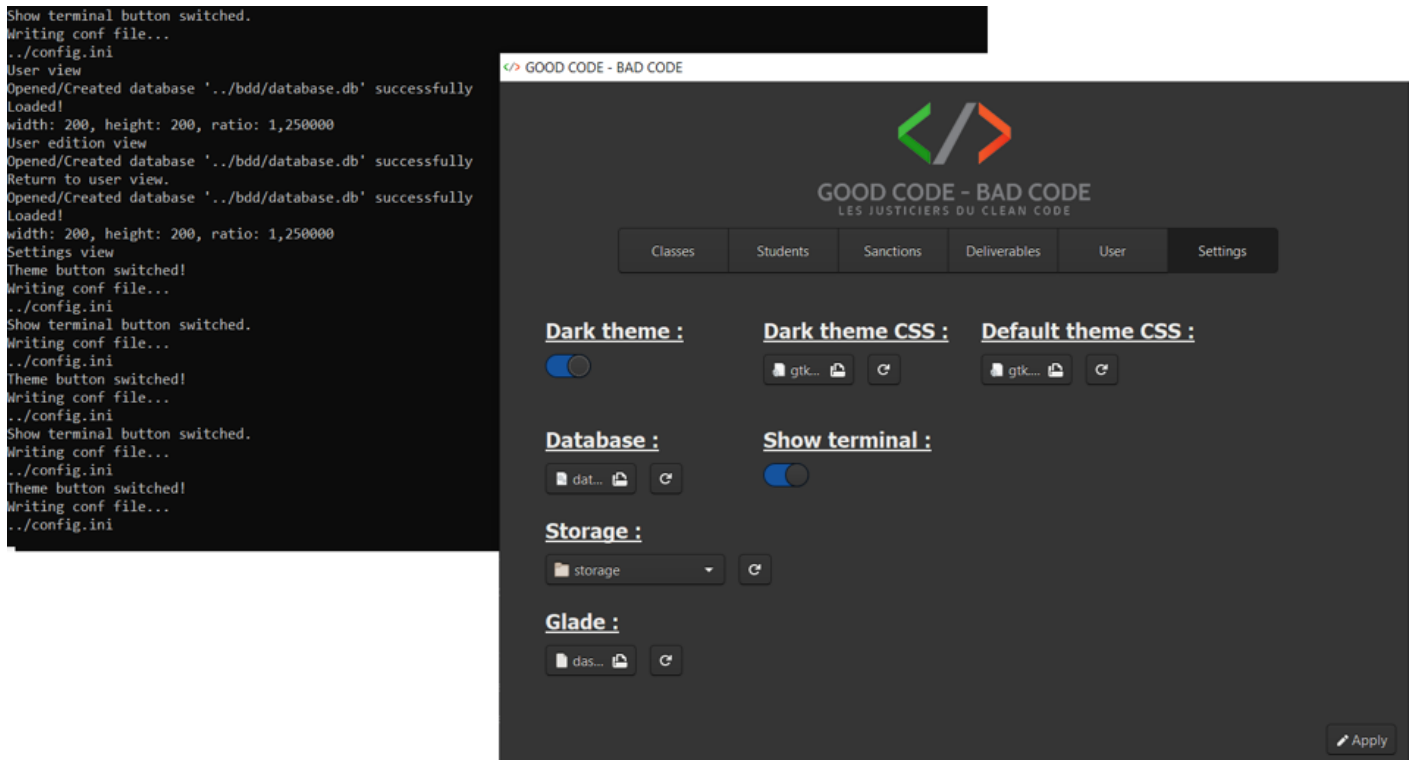
An 'Apply' button with a pencil icon is located at the bottom right of the window.

## b. Update settings

The update of the settings values is done directly from the display page with:

- A "switch" button: to apply or not the dark theme and to display or not the console
- A folder browser: for the backup folder of the application data
- File browser: for other files

When a file or folder is selected, it is possible to cancel this selection and return to the initial value (the one present in the configuration file) using the "Reset" button located next to each file selector. To submit the new values and write them on the configuration file (saving them for the next opening of the application), click on the "Apply" button. In fact, if the switch buttons directly display the result of their value (allowing dynamic juggling between themes), the others will only be saved by clicking on the "Apply" button.



# Installation

## Using setup file

You can install this application with the setup file located here :

**installation/bad\_code\_setup.exe**

## Cmake compilation

Or compile it with the **CMakeLists.txt**

Warning ⚠️⚠️⚠️ !!!

In both case, you will need to have mingw installed with gtk+3.20 at least.  
I didn't figured out yet how to compile it in static in all-in-one executable file...

## Using msys2 :

Here's the command to execute inside msys2 to be able to compile this project :

```
pacman -Syu
pacman -S mingw-w64-x86_64-gcc
pacman -S mingw-w64-x86_64-gtk3
```

Then, you need to link the `msys2/mingw64/bin` folder to your `system environment variable PATH`

During the build, if some libraries are not found, go to the folder `msys2/mingw64/include` and copy them outside of there *version folder*:



**Example :** copy **gtk** and **gdk** folder inside `msys2/mingw64/include/gtk-3-0/` directly inside `msys2/mingw64/include/`

## Contributing

If someone has the idea and know how to compile in static with GTK and stuffs to be dependence free on windows OS, be my guest !

## Authors

This project was carried out in a group of two people, myself included.

<u>Joëlle CASTELLI</u>	
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## More Documentation

Here's some stuff I looked at when I was developing this application :

## Header files

[https://www.tutorialspoint.com/cprogramming/c\\_header\\_files.htm](https://www.tutorialspoint.com/cprogramming/c_header_files.htm)

## Guides

<https://gerald3d.developpez.com/tutoriels/gtk/glade3/>

<https://openclassrooms.com/fr/courses/1343806-pygtk/1343942-glade>

<https://www.guillaumeriviere.name/estia/DRI/tp1.php>

## TreeView

<https://linuxfr.org/users/trim/journaux/utilisation-de-gtktreemodel-gtktreeview-et-consorts>

[https://gtk.developpez.com/cours/gtk2/?page=page\\_23](https://gtk.developpez.com/cours/gtk2/?page=page_23)

## SQLite

<http://zetcode.com/db/sqlitec/>

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Revision #3

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