CRYPTSTRING

A web application for the visualisation of cryptographic transformations of strings.

User's Guide

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Contents

1 Introduction

1.1 General purpose

CRYPTSTRING is a web application (available here) allowing you to apply transformations to a string of characters. It offers you the possibility to combine those operations in a flexible sequence. Cryptstring helps you to visualise and to analyse the effects of cryptographic primitives on your given string.


1.2 System requirements

The website should run correctly on the latest version of any widespread web browser except Opera Mini and Internet Explorer. If you encounter any problem, refer to the troubleshooting section.

IE	Edge	Firefox	Chrome	Safari	Opera	Safari on iOS	Opera Mini	Android Browser	Opera Mobile	Chrome for Android	Firefox for Android	UC Browser for Android	Samsung Internet	QQ Browser	Baidu Browser	KaiOS Browser
	12-13			3.1-10		3.2-10.2										
	14	2-51	4-54	10.1	10-41	10.3							4-5.4			
6-10	15-88	52-85	55-88	11-13.1	42-72	11-13.7		2.1-4.4.4	12-12.1				6.2-12.0			
11	89	86	89	14	73	14.5	all	89	62	89	86	12.12	13.0	10.4	7.12	2.5
		87-88	90-92	TP												

Green: compatible, purple: incompatible

2 Getting Started

2.1 Getting to Know the Interface
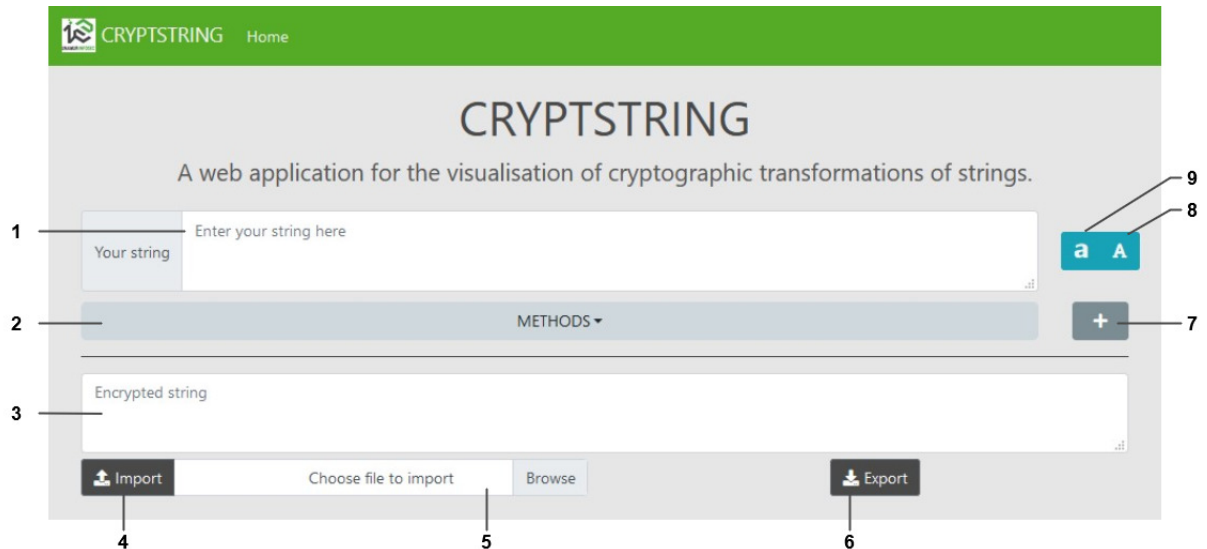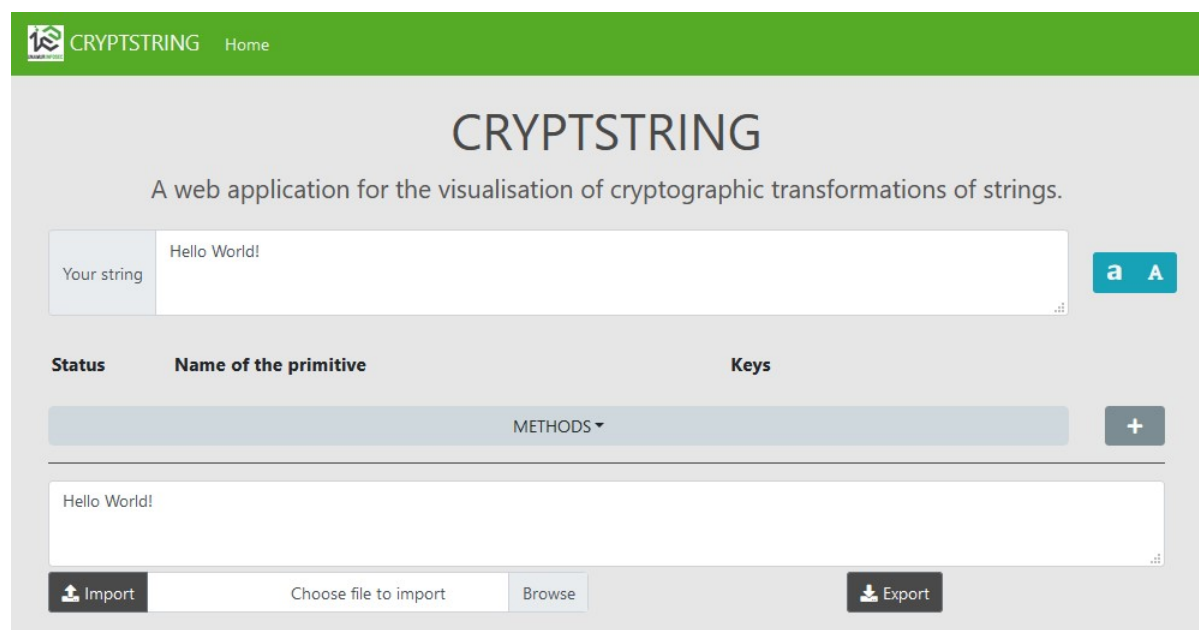
1. Input field for your string

2. Method selection menu // Drop-down *METHODS* menu

3. Result display field

4. Import button

5. File selection button

6. Export button

7. Add method button

8. Uppercase button

9. Lowercase button

2.2   First steps

- Navigate to the site hosting Cryptstring with your favourite web browser. The current URL is https://antoinemouchet.github.io/base

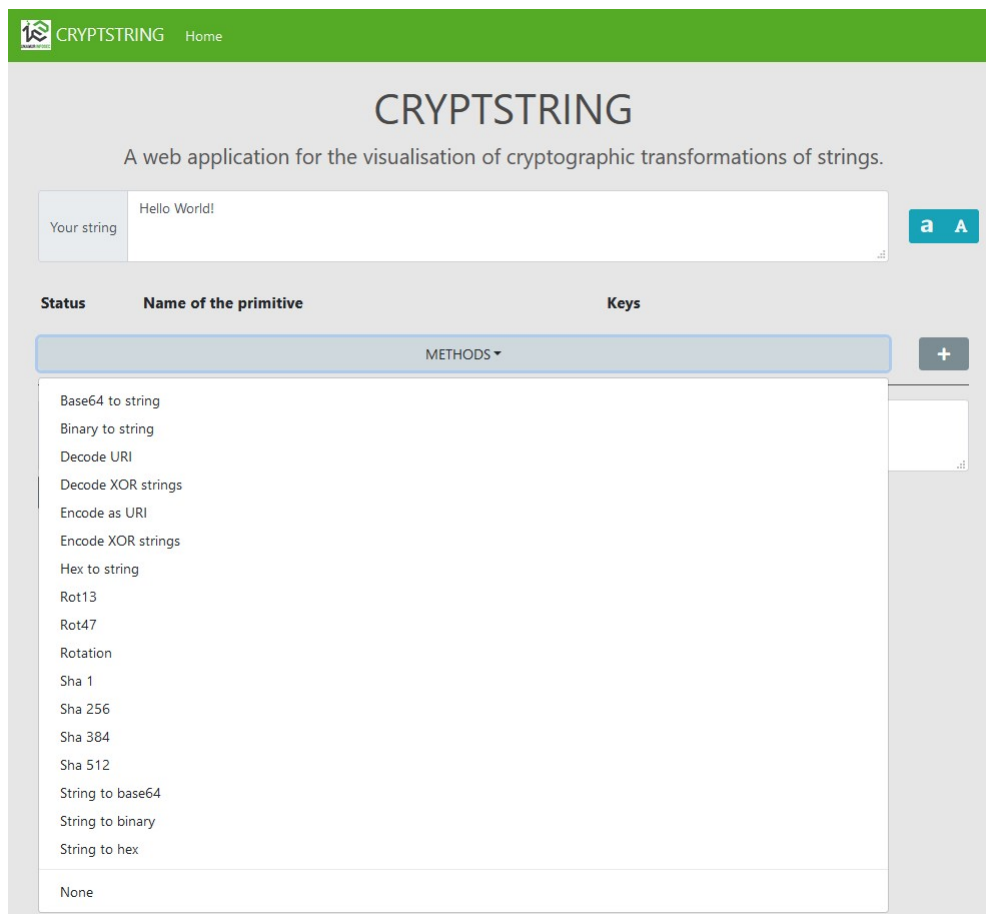- Insert your string in the corresponding field (see the previous figure on page 3 if you have any problem finding it.)

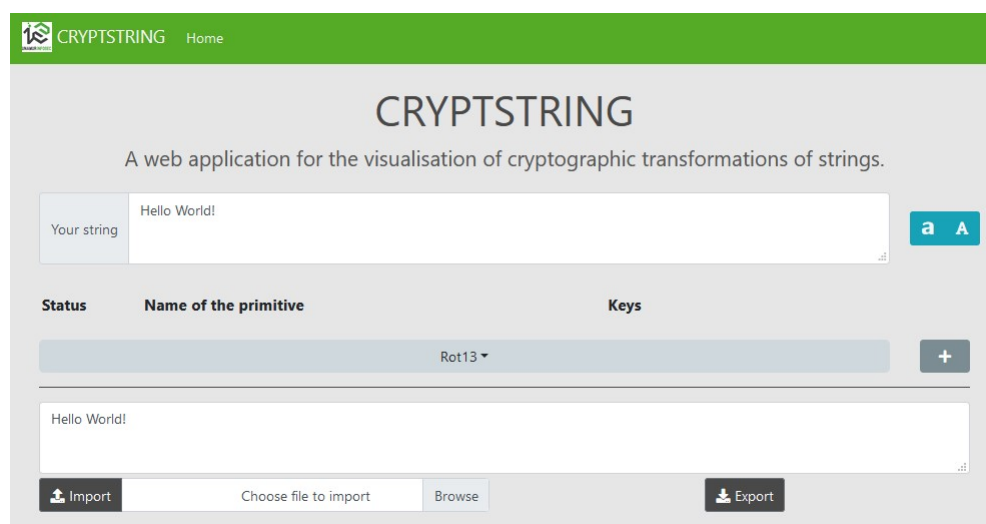At this point, you should see something like this. If it is not the case, please refer to the troubleshooting section.

- Select a method in the drop-down *METHODS* menu by clicking on it.

- The name of the selected method will be displayed in place of *METHODS*.

- Press the *plus* button ⊞ next to the method selection menu. This action will add the method to the list of transformations applied to your string.
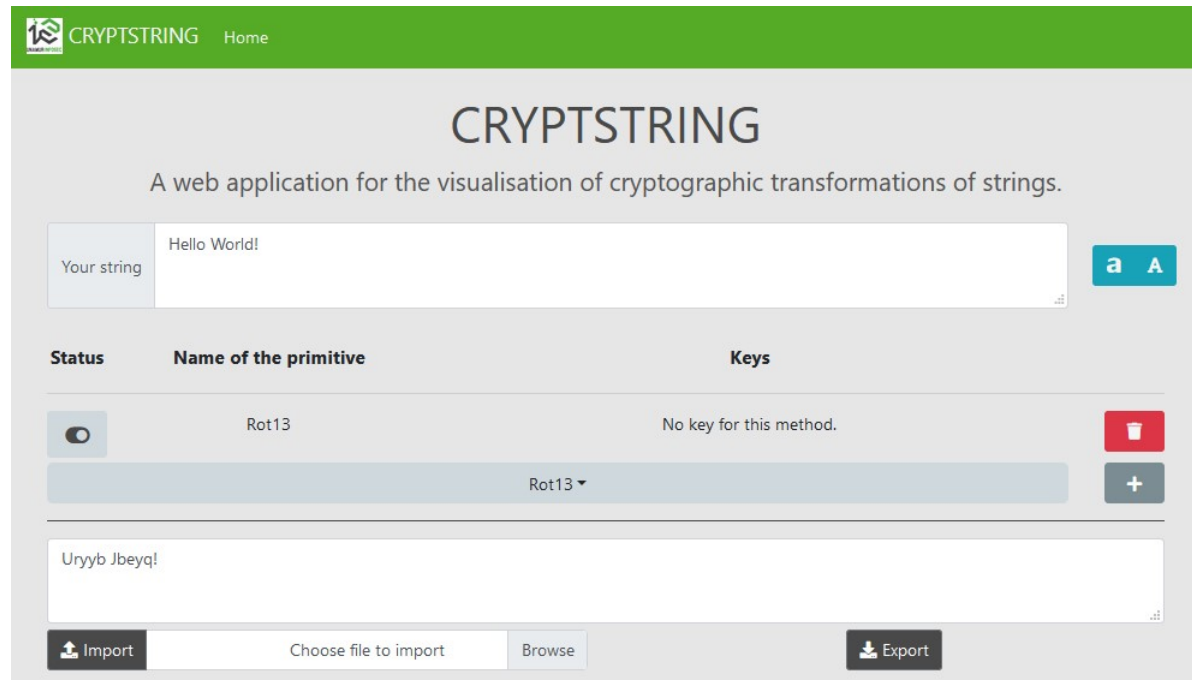
- You can now analyse the modified string in the output field.

3   Going Further

3.1   Method with a key

Some methods need a key. If you select one, insert your key in the text box in the *keys* column. The transformation will use your key to modify your string (See the figure below for an illustration).

3.2   Adding more methods

To add more methods to the list of transformations, repeat the steps starting from method selection.

Cryptstring has no limit to the number of modifications you can apply, so feel free to let your creativity expresses itself.

If you have multiple methods needing a key, enter one for each method.

3.3   Removing an operation

To remove an operation from your list of active modifications, you have 2 possibilities:

3.3.1   First Method: Temporarily deactivating the method

To temporarily deactivate the method, press the status button [●] next to it. Your string will not be affected anymore by this transformation, but it will stay in the displayed list, and you can turn the modification back in anytime you want.
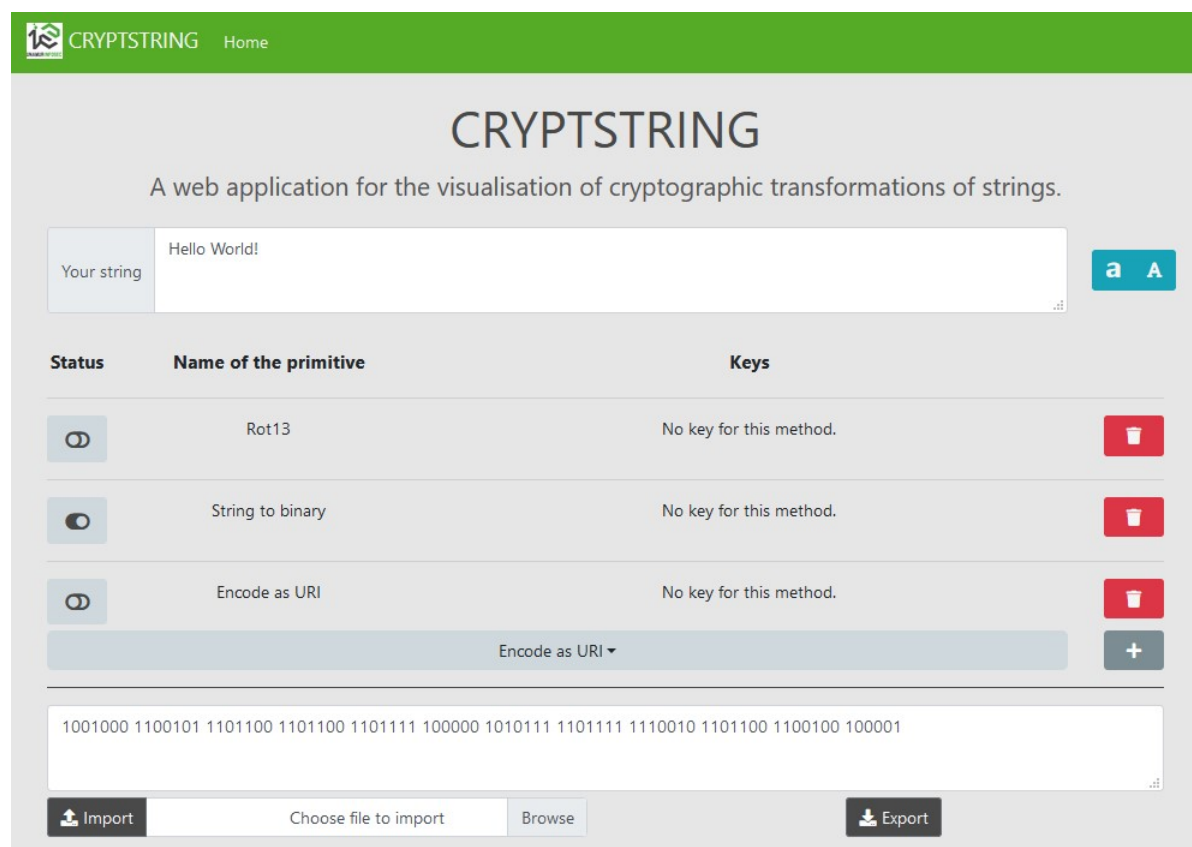
3.3.2   Second method: Definitively removing the method

To definitively remove a method, press the delete button [🗑] next to it. Your string will not be affected anymore by this transformation, and it will disappear from the displayed list.

3.3.3   Reactivate a temporarily deactivated method

To reactivate a method previously deactivated, press the status button [⬤] another time.

3.4   Change string to uppercase or lowercase

To convert your string to uppercase or lowercase, press the corresponding button [a A] to transform your string of characters in the desired format.

If you have any trouble remembering the meaning of each button, please refer to the "Getting to Know the Interface" section.

3.5   Export the sequence of operations

Cryptstring offers the possibility to download the current sequence of operations. It is especially useful if you need to save a particular sequence or if you want to send it to someone else.

To export the sequence, press the export button [⬇ Export] and save the file on your computer.

3.6   Import a sequence of operations

Since you can export a sequence, you need to be able to import it back to Cryptstring.

- Press the file selection button [Choose file to import   Browse]
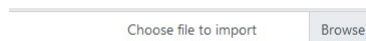
- Select a valid file exported from Cryptstring in your file explorer and press open.

- The name of the selected file replaces the placeholder on the page. It allows you to verify that you chose the correct file.

- Press import

4   Troubleshooting

4.1   The page does not load.

1. Check your internet connection.

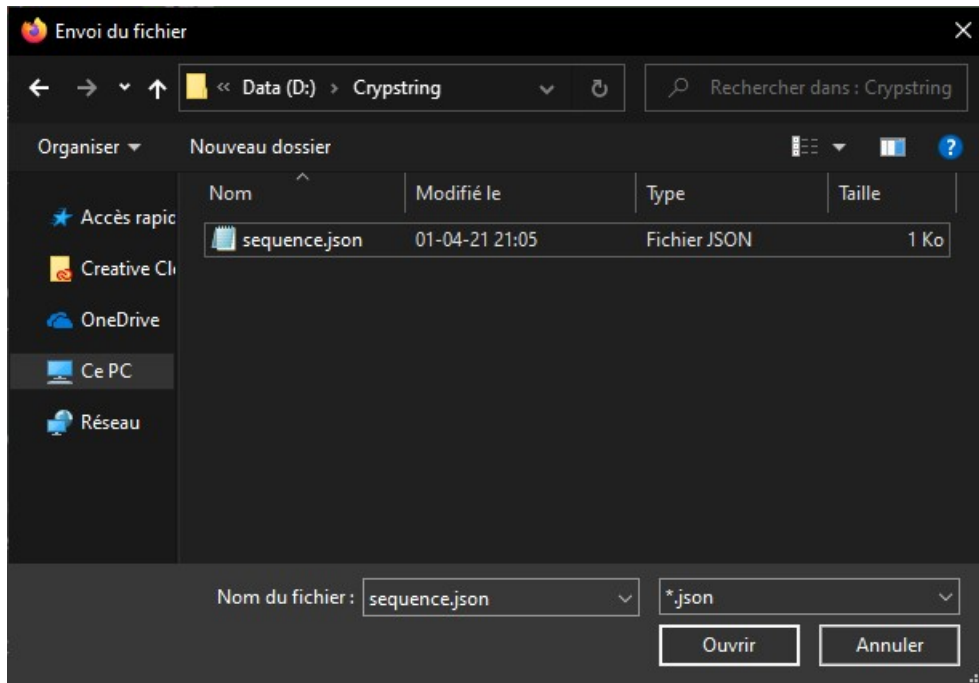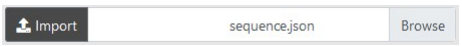2. Check that you entered the correct URL.

3. Try clearing your cache and your cookies and see if it solves the problem.

4. Disable any plugins, extensions or custom themes installed in the browser and see if that solves the problem.

4.2   The result does not change despite adding some methods.

1. Check that you inputted something.

2. Check that all the methods needing a key have one.

3. Check that you have at least one method activated. Its status button should look like this ⬤ .

4. You might be using unsupported text characters.

4.3   The import button does not seem to work.

1. Check that you selected a file. Its name should be in the box next to the import button. ⬆ Import | sequence.json | Browse   Here the user selected the *sequence.json* file.

2. Make sure the file you try to import is a sequence of operations exported from Cryptstring.

5   Frequently Asked Questions

5.1   Can I contribute to the evolution of Cryptstring?

The project is distributed under the Apache License, Version 2.0 and is currently unavailable to the public.

5.2   If I close the tab with Cryptstring, will I recover my sequence of operations when I open it again?

Cryptstring does not store any information neither collect any data. Therefore, you will lose all ongoing work when closing the page. If you want to save a set of methods, use the export feature.

5.3   What can I do if I encounter a problem not described in the troubleshooting section?

You can contact the support at this address: amouchet.projects@gmail.com.

6   Contact

For any question or suggestion, feel free to send us an email to: amouchet.projects@gmail.com.

7   End Notice

This project is sponsored by Jean-Noel Colin, a member of the InfoSec research team.