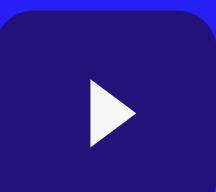


CYK Algorithm



Explore the use manual



What is CYK?



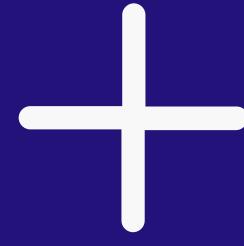
The Cocke–Younger–Kasami–Algorithm (CYK or CKY) is a highly efficient parsing algorithm for context-free grammars. This makes it ideal to decide the word-problem for context-free grammars, given in Chomsky normal form (CNF). The following tool can be used to check if a certain word $w \in \Sigma^*$ is part of a language, given in CNF grammar.

Algoritmo CYK

W

El algoritmo de Cocke–Younger–Kasami (CYK) determina si una cadena puede ser generada por una gramática libre de contexto y, si es posible, cómo puede ser generada. Este proceso es conocido como análisis sintáctico de la cadena. El algoritmo es un...

W Wikipedia / Nov 13, 2019



CYK Algorithm

Sentence:

bca

Grammar (must be in FNC):

Write Grammar in Chomsky's normal form
(You can use '*' to represent void)

Example:

$S \rightarrow BA|AB$
 $A \rightarrow CA|a$
 $B \rightarrow BB|b$
 $C \rightarrow BA|c$

please make sure your grammar follows
the example format

Check

[github](#)

1 Step

Insert the sentence for validate
grammar



CYK Algorithm

Sentence:

bca

Grammar (must be in FNC):

```
S->BA|AB  
A->CA|a  
B->BB|b  
C->BA|c
```

Check

[github](#)

Step 2

Insert the grammar in CNF form

The grammar must be without spaces and also the separators must be " | " and "->" to represents the arrow.

https://es.wikipedia.org/wiki/Algoritmo_CYK

- CYK ALGORITHM recognizes languages defined by a context-free grammar written in Chomsky Normal Form (CNF).

A formal grammar is in Chomsky Normal Form if all its production rules are of any of the following forms:

$A \rightarrow BC$ or

$A \rightarrow a$

where A , B and C they are nonterminal symbols (or variables) and a is a terminal symbol.

https://es.wikipedia.org/wiki/Forma_normal_de_Chomsky

Conditions for grammar

CYK Algorithm

Sentence:

bca

Grammar (must be in FNC):

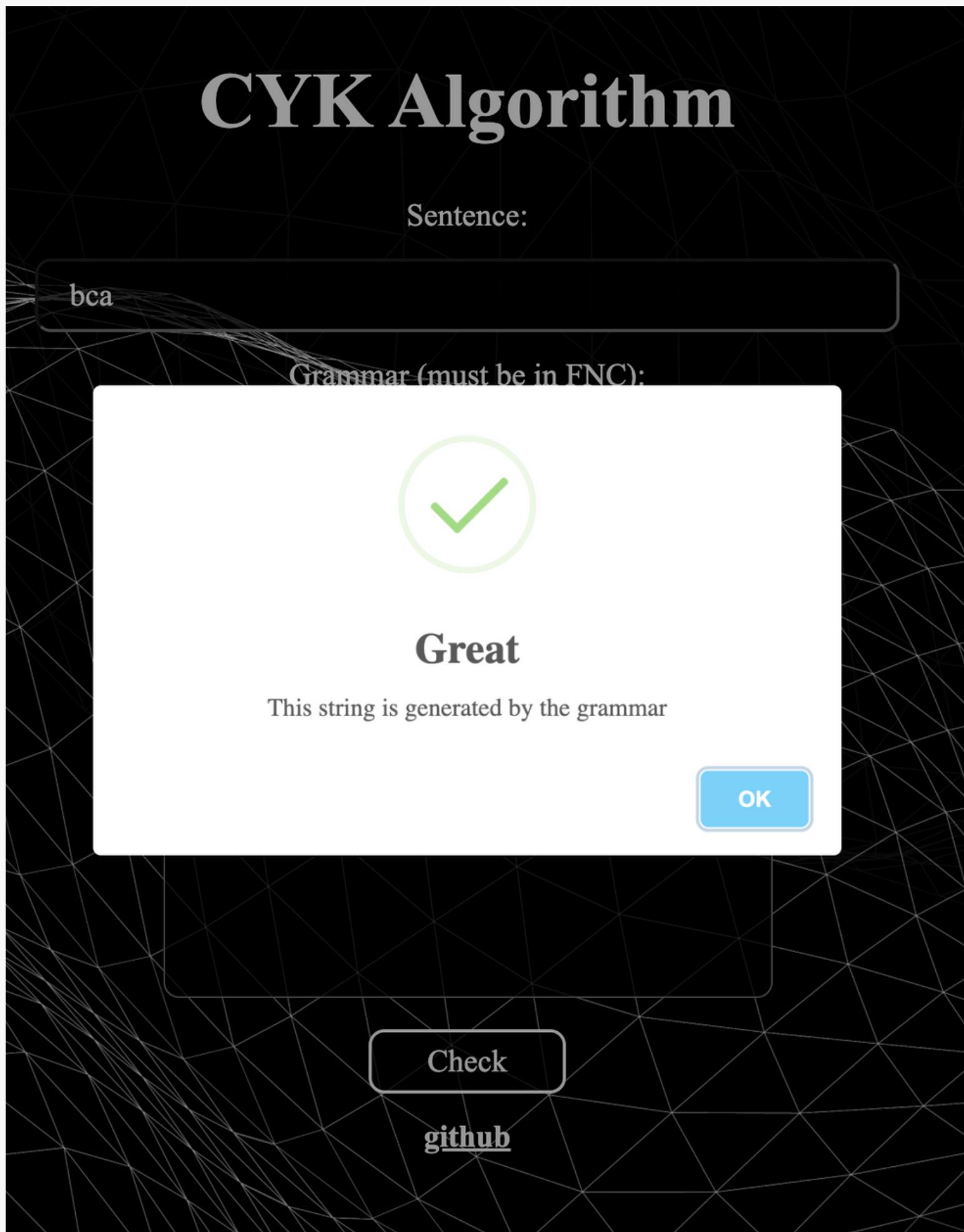
```
S->BA|AB  
A->CA|a  
B->BB|b  
C->BA|c
```

Check

[github](#)

Step 3

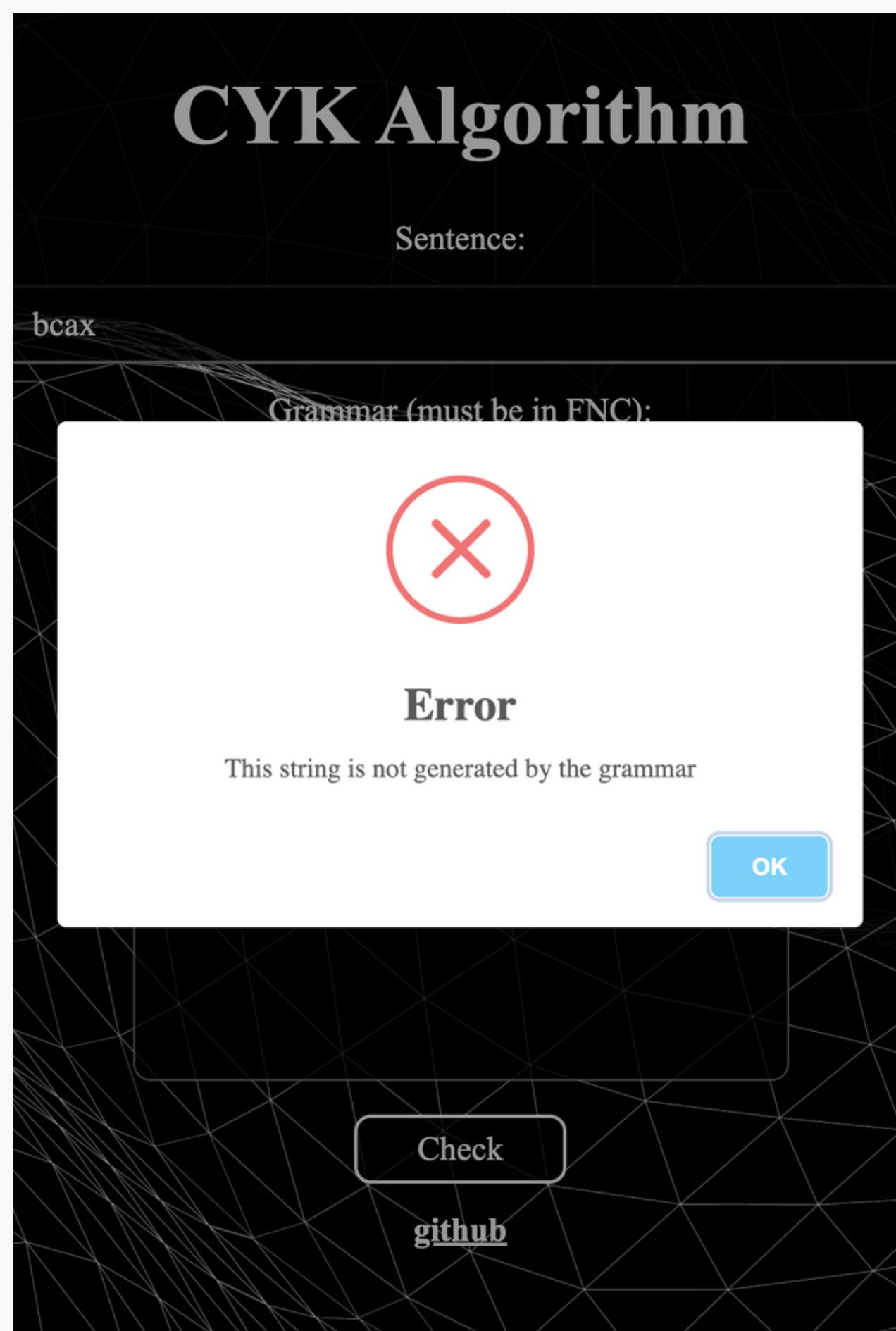
Pulse the boton check for validate the algorithm of cyk



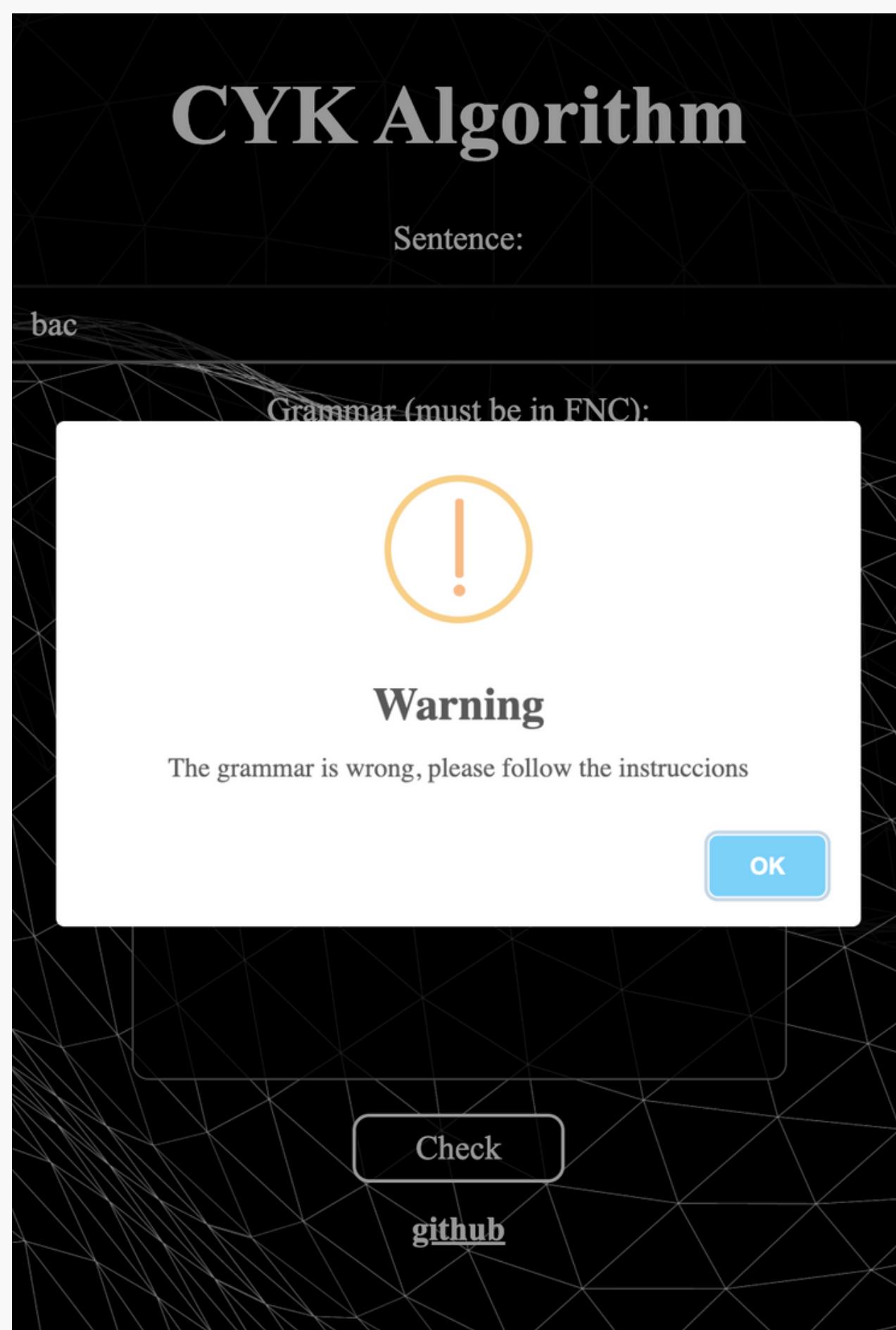
Step 4

The program
It will show a message of good, bad
or warning.

Error alert



Warning alert





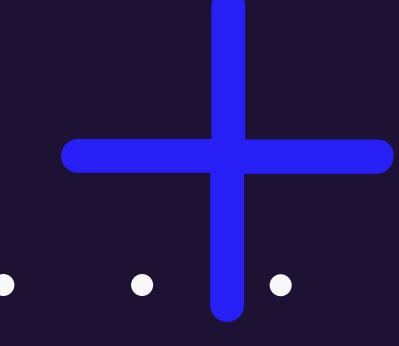
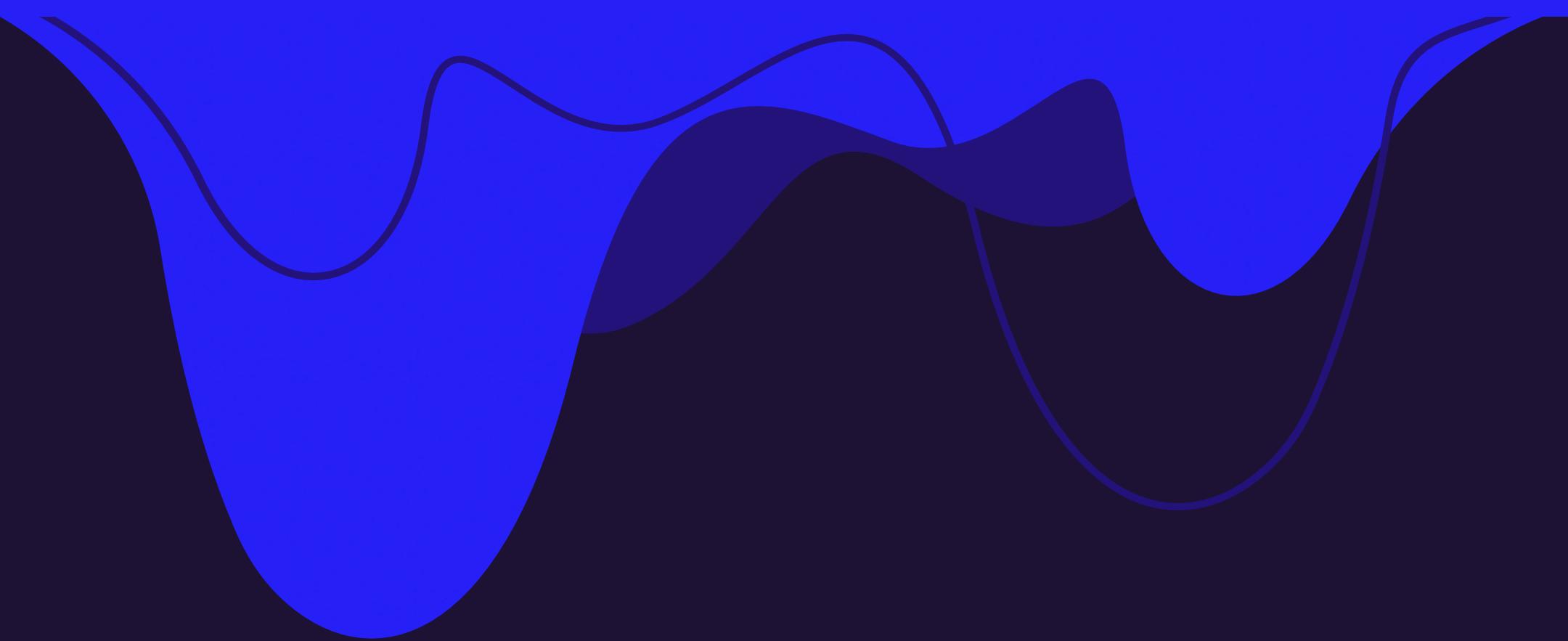
Sebastian Morales



Santiago Hurtado



Carolina Pasuy



Contact