



# *Cogetta*

*User Guide*

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# *How to Set Up and Use Cogetta*

# Introduction

**Cogetta is a substitution cipher written in Python 3 and has been released under the MIT license. This works by allowing you to define a custom amount of set of IDs (wheel keys).**

**Here is an example of how a 2 wheeled-key would work:**

<b>Original Key: 1-0-2-3+3-2-1-0</b>	<b>0</b>	<b>1</b>	<b>2</b>
<b>Character set: 0:A-S-D-F</b>	<b>A</b>	<b>S</b>	<b>D</b>
<b>Message: ASDFA</b>			
<b>Start Encryption:</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>Key state 1-0-2-3+3-2-1-0</b>	<b>S</b>	<b>S</b>	<b>D</b>
<b>A(0) becomes S (1) which becomes D(2)</b>	<b>2</b>	<b>0</b>	<b>3</b>
<b>key state 2-1-3-0+3-2-1-0</b>	<b>D</b>	<b>A</b>	<b>F</b>
<b>S(1) becomes S(1) which becomes D(2)</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Key state 3-2-0-1+3-2-1-0</b>	<b>F</b>	<b>D</b>	<b>S</b>
<b>D(2) becomes A(0) which becomes F(3)</b>	<b>0</b>	<b>1</b>	<b>3</b>
<b>Key state 0-3-1-2+3-2-1-0</b>	<b>A</b>	<b>S</b>	<b>F</b>
<b>F(3) becomes D(2) which becomes S(1)</b>			
<b>Key state 1-0-2-3+0-3-2-1</b>			
<b>A(0) becomes S(1) which becomes F(3)</b>			
<b>Your final encrypted message DDFS F</b>			

```
Please enter a Number:1
What is your key:1-0-2-3+3-2-1-0
What is your message:ASDFA
DDFSF
```

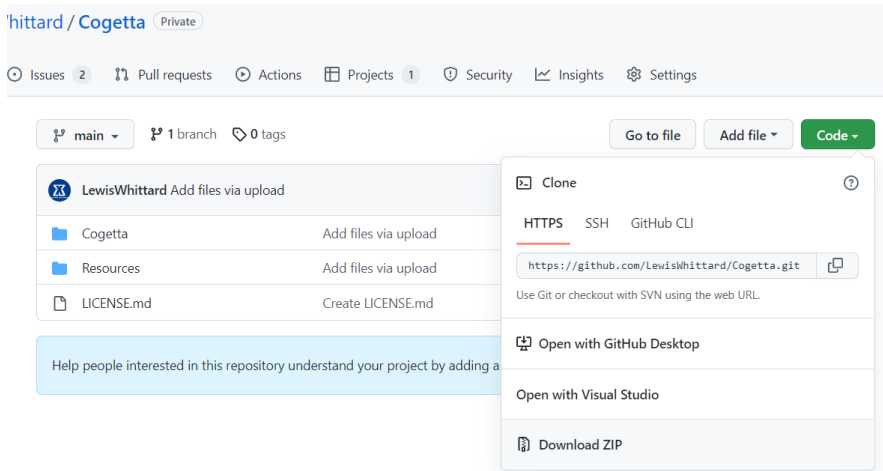


**Screenshot of Cogetta using the same Configuration as shown in the example.**

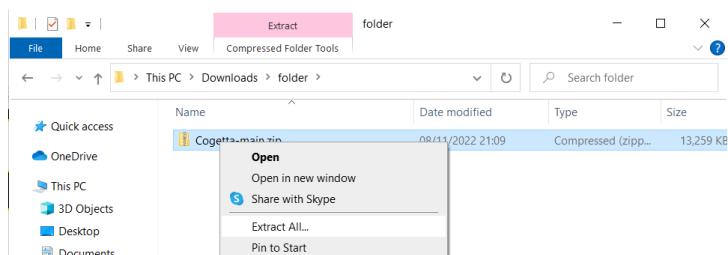
# Set Up

**1. You need to download python from:**  
**<https://www.python.org/>**

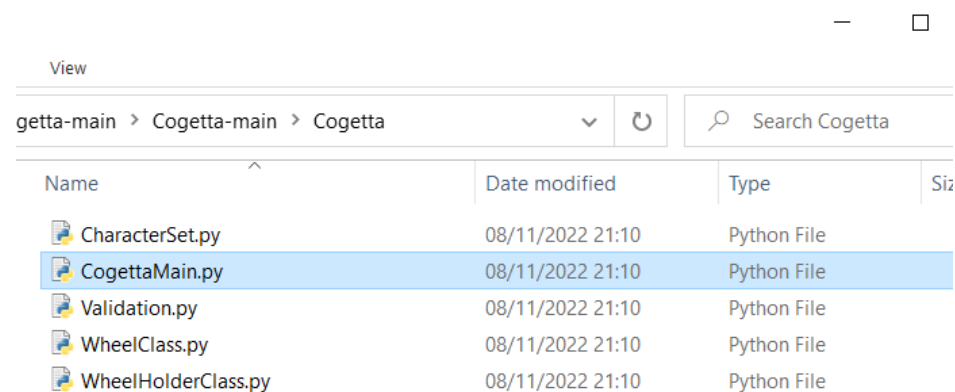
**2. Then you need to download the repository from:**  
**<https://github.com/LewisWhittard/Cogetta>**



**3. Then extract the Cogetta-main zip file.**



**4. And open the file "Cogetta/CogettaMain.py".**



# Encryption

## 1. Enter 0 to generate a key:

```
Cogetta • © Lewis Whittard 2022 • MIT License • Version: 1.0.0
0: Generate a key
1: Encrypt
2: Decrypt
3: Quit
Please enter a Number:0
How many wheels:3
```

## 2. Then specify how many wheels you want:

```
Please enter a Number:
How many wheels:3
```

## 3. Notice you have generated your key:

```
Please enter a Number:0
How many wheels:3
56-93-62-63-9-73-46-84-12-31-16-36-80-6-79-15-21-88-4-76-49-57-43-13-59-0-37-91-75-94-3-65-27-58-61-32-1-74-95-29-92-34-
89-77-35-54-7-85-40-41-71-90-68-19-81-38-83-42-66-78-87-25-2-48-39-44-82-51-20-5-70-45-24-67-23-69-50-18-8-64-10-52-86-2
2-28-11-60-26-17-47-72-53-55-14-30-33+34-46-24-94-13-85-44-52-65-90-9-14-93-53-70-32-11-80-77-72-95-3-59-10-49-67-21-71-
75-12-23-57-63-79-7-36-61-25-43-84-64-56-76-66-89-29-81-74-17-48-33-41-83-16-30-38-62-82-54-27-19-18-69-91-42-0-50-37-15
-22-2-73-40-1-78-55-51-6-8-60-20-28-4-5-68-92-47-26-45-58-31-87-39-35-86-88+39-66-69-79-45-76-82-84-10-47-60-72-34-23-33
-30-49-43-89-73-56-41-35-18-48-40-85-62-38-26-5-28-36-77-1-57-74-51-91-3-90-42-64-58-78-67-19-95-81-2-11-88-55-70-7-80-2
7-71-93-44-75-16-4-14-15-6-13-83-52-29-87-68-25-17-94-59-0-31-22-50-86-32-63-65-8-53-24-20-92-46-12-9-21-37-61-54
```

## 4. Enter 1 to encrypt:

```
Please enter a Number:1
What is your key:
```

## 4 Then paste your key:

```
What is your key:56-93-62-63-9-73-46-84-12-31-16-36-80-6-79-15-21-88-4-76-49-57-43-13-59-0-37-91-75-94-3-65-27-58-61-32-
1-74-95-29-92-34-89-77-35-54-7-85-40-41-71-90-68-19-81-38-83-42-66-78-87-25-2-48-39-44-82-51-20-5-70-45-24-67-23-69-50-1
8-8-64-10-52-86-22-28-11-60-26-17-47-72-53-55-14-30-33+34-46-24-94-13-85-44-52-65-90-9-14-93-53-70-32-11-80-77-72-95-3-5
9-10-49-67-21-71-75-12-23-57-63-79-7-36-61-25-43-84-64-56-76-66-89-29-81-74-17-48-33-41-83-16-30-38-62-82-54-27-19-18-69
-91-42-0-50-37-15-22-2-73-40-1-78-55-51-6-8-60-20-28-4-5-68-92-47-26-45-58-31-87-39-35-86-88+39-66-69-79-45-76-82-84-10-
47-60-72-34-23-33-30-49-43-89-73-56-41-35-18-48-40-85-62-38-26-5-28-36-77-1-57-74-51-91-3-90-42-64-58-78-67-19-95-81-2-1
1-88-55-70-7-80-27-71-93-44-75-16-4-14-15-6-13-83-52-29-87-68-25-17-94-59-0-31-22-50-86-32-63-65-8-53-24-20-92-46-12-9-2
1-37-61-54
```

## 5 Then input your unencrypted message:

```
What is your message:The quick brown fox jumps over the lazy dog.
```

## 6 Copy your encrypted message from Cogetta:

```
W~C0r6L["8w:hF/q)___=12DYZ|13x2+y2*#3$zZzwn9V
```

## 7 Use your encrypted message however you want!

# Decryption

## 1. Press 2 to decrypt:

Please enter a Number:2

## 2 Then paste your key:

Please enter a Number:2

What is your key:56-93-62-63-9-73-46-84-12-31-16-36-80-6-79-15-21-88-4-76-49-57-43-13-59-0-37-91-75-94-3-65-27-58-61-32-1-74-95-29-92-34-89-77-35-54-7-85-40-41-71-90-68-19-81-38-83-42-66-78-87-25-2-48-39-44-82-51-20-5-70-45-24-67-23-69-50-18-8-64-10-52-86-22-28-11-60-26-17-47-72-53-55-14-30-33+34-46-24-94-13-85-44-52-65-90-9-14-93-53-70-32-11-80-77-72-95-3-59-10-49-67-21-71-75-12-23-57-63-79-7-36-61-25-43-84-64-56-76-66-89-29-81-74-17-48-33-41-83-16-30-38-62-82-54-27-19-18-69-91-42-0-50-37-15-22-2-73-40-1-78-55-51-6-8-60-20-28-4-5-68-92-47-26-45-58-31-87-39-35-86-88+39-66-69-79-45-76-82-84-10-47-60-72-34-23-33-30-49-43-89-73-56-41-35-18-48-40-85-62-38-26-5-28-36-77-1-57-74-51-91-3-90-42-64-58-78-67-19-95-81-2-11-88-55-70-7-80-27-71-93-44-75-16-4-14-15-6-13-83-52-29-87-68-25-17-94-59-0-31-22-50-86-32-63-65-8-53-24-20-92-46-12-9-21-37-61-54

## 3 And input your encrypted message:

1-37-61-54

What is your message:W~C0r6L["8w:hf/q)\_\_\_=12DYZ|l3x2+y2\*#3\$zZzwn9V  
The quick brown fox jumps over the lazy dog

## 4 Cogetta will then output your decrypted message:

The quick brown fox jumps over the lazy dog.

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