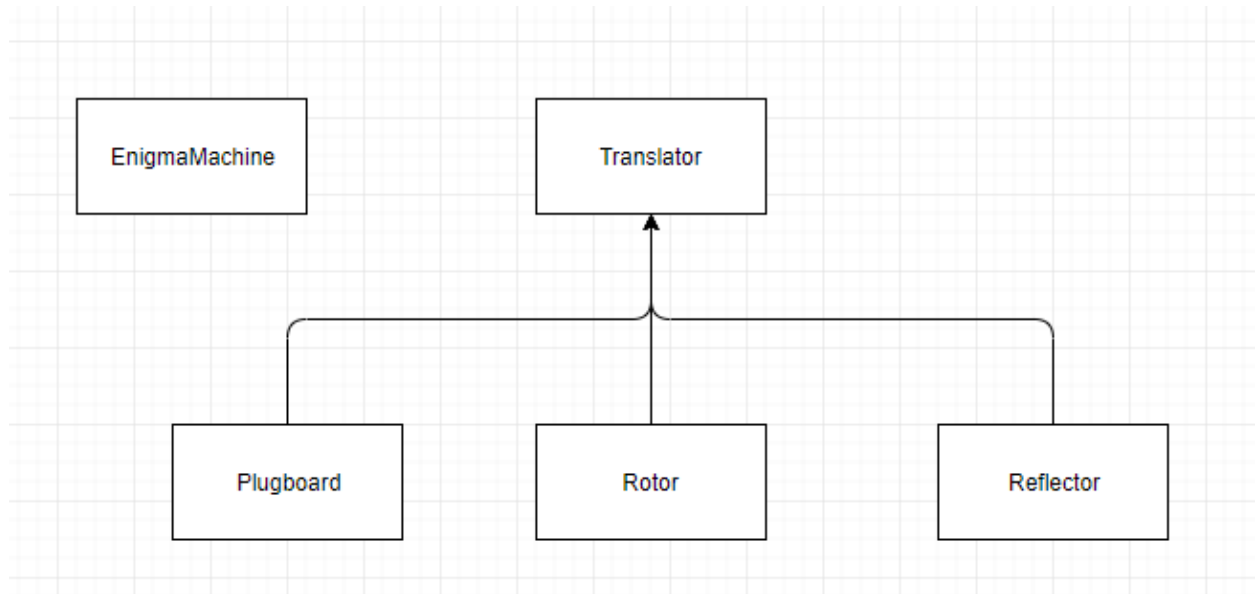


Enigma - How to

Dor Kriksman

Class diagram –



Process (This is not case sensitive process) -

1. Run the machine
2. Enter the rotors' numbers from left to right (numbers must be from 1 to 5 or you will be kicked from the machine)
3. Enter the rotor's settings from left to right (input must be alphabetical and in length of 3, no spaces needed)
4. Enter to rotors' offset from left to right (input must be alphabetical and in length of 3, no spaces needed)
5. Enter the Plugboard configuration, input must be alphabetical, and each 2 letters switch must be divided by a space and each letter must appear only once
6. Enter message to machine input stream when you see the following prompt –

```
Enter a message in the machine (To Exit Enter-exit)
Enter Message:
```

7. You will receive an output message by your machine's settings

Assignment 5 –

1. Type the rotos as follow – 254
2. Type in the settings prompt – six
3. Type in the offset prompt – con
4. In the plugboard configuration enter the following - ZU HL CQ WM OA PY EB TR DN VI
5. Type in the following message – MLD
 - a. You should get the output DOR
 - i. Reset the machine by typing exit and then reactivate it and go to step 6
6. Type the rotos as follow – 254
7. Type in the settings prompt – six
8. Type in the offset prompt – dor
9. In the plugboard configuration enter the following - ZU HL CQ WM OA PY EB TR DN VI
10. Enter the following message - UMDPQ CUAQN LVVSP IARKC TTRJQ KCFPT OKRGO ZXALD
RLPUH AUZSO SZFSU GWFNF DZCUG VEXUU LQYXO TCYRP SYGGZ HQMAG PZDKC
KGOJM MYYDD H

11. You should get the following output –

```
Enter a message in the machine (To Exit Enter-exit)
```

12. Notice you should reset the machine in the same way from step 6 to 9 in order to get the same result. The machine changes its offset as it goes.

Assignment 6 –

Ordered by: internal time

ncalls	totttime	percall	cumtime	percall	filename:lineno(function)
4	4.746	1.186	4.746	1.186	{built-in method builtins.input}
60000	0.092	0.000	0.352	0.000	Rotor.py:45(translation)
120000	0.089	0.000	0.228	0.000	Translator.py:28(circularshift)
210000	0.079	0.000	0.111	0.000	Translator.py:24(letterToindex)
10000	0.067	0.000	0.480	0.000	Enigma.py:78(encrypt)
120000	0.050	0.000	0.077	0.000	Translator.py:20(indexToletter)
540012	0.041	0.000	0.041	0.000	{built-in method builtins.ord}
60000	0.019	0.000	0.019	0.000	Rotor.py:39(changeDir)
120000	0.017	0.000	0.017	0.000	{built-in method builtins.chr}
10000	0.015	0.000	0.026	0.000	random.py:344(choices)
20000	0.010	0.000	0.021	0.000	PlugBoard.py:39(translation)
10000	0.008	0.000	0.009	0.000	random.py:356(<listcomp>)
20016	0.005	0.000	0.005	0.000	Rotor.py:33(turnOver)
10000	0.005	0.000	0.010	0.000	Reflector.py:8(translation)
10416	0.005	0.000	0.005	0.000	Rotor.py:27(step)
10000	0.002	0.000	0.002	0.000	{method 'random' of '_random.Random' objects}
10000	0.001	0.000	0.001	0.000	{method 'join' of 'str' objects}
10009	0.001	0.000	0.001	0.000	{built-in method builtins.len}
4	0.000	0.000	0.000	0.000	codecs.py:319(decode)
4	0.000	0.000	0.000	0.000	{built-in method _codecs.utf_8_decode}
1	0.000	0.000	0.000	0.000	{built-in method builtins.print}
1	0.000	0.000	0.000	0.000	Enigma.py:38(setSettings)
1	0.000	0.000	0.000	0.000	Enigma.py:12(__init__)
1	0.000	0.000	0.000	0.000	Enigma.py:27(setRotors)
1	0.000	0.000	0.000	0.000	Enigma.py:58(setOffsets)
1	0.000	0.000	0.000	0.000	PlugBoard.py:8(__init__)
4	0.000	0.000	0.000	0.000	codecs.py:331(getstate)
1	0.000	0.000	0.000	0.000	PlugBoard.py:12(setConfig)
3	0.000	0.000	0.000	0.000	{method 'append' of 'list' objects}
6	0.000	0.000	0.000	0.000	{method 'isalpha' of 'str' objects}
3	0.000	0.000	0.000	0.000	Rotor.py:20(setSettings)
3	0.000	0.000	0.000	0.000	Rotor.py:23(setOffset)
1	0.000	0.000	0.000	0.000	Reflector.py:5(__init__)
1	0.000	0.000	0.000	0.000	{method 'disable' of '_lsprof.Profiler' objects}
6	0.000	0.000	0.000	0.000	{method 'upper' of 'str' objects}
1	0.000	0.000	0.000	0.000	{method 'isnumeric' of 'str' objects}