

CRC

This code is written using Python

--> it reads an input file (input.txt) with the message and fn generator

--> it makes long division on them and outputs the transmitted message

--> verifier checks that the transmitted message is correct

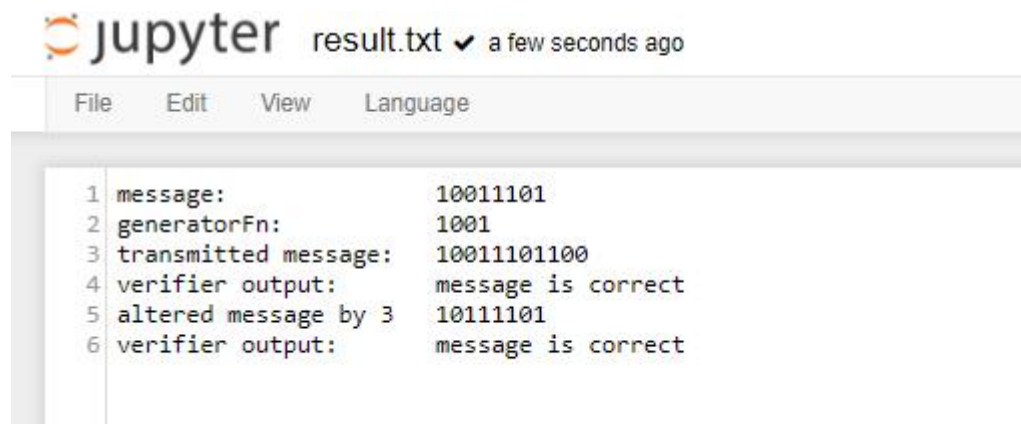
--> you choose an index to alter the message with

(left most bit is index 1)

--> it alters the bit, sends it to the verifier to check if it's a correct transmitted message or not

--> output file (result.txt) is generated with all the results

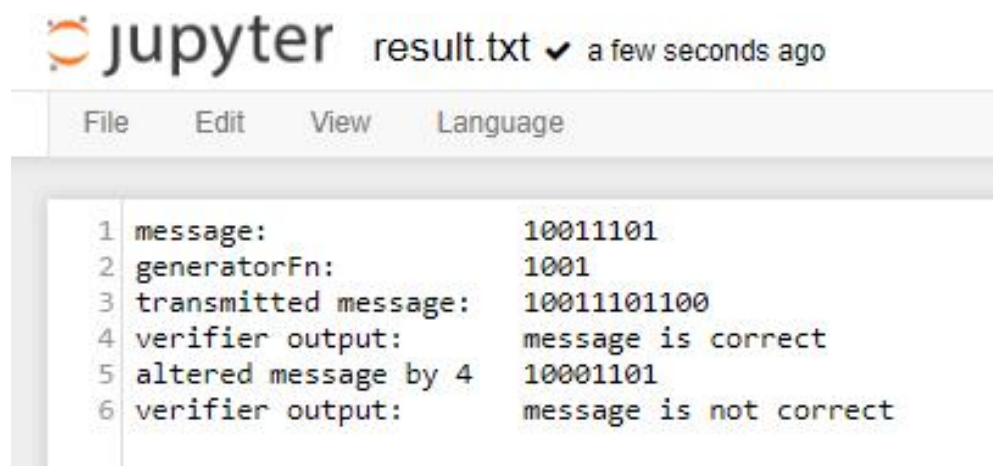
Demo



The image shows a Jupyter Notebook interface with a single cell containing the output of a CRC calculation. The output is as follows:

```
1 message:          10011101
2 generatorFn:      1001
3 transmitted message: 10011101100
4 verifier output:  message is correct
5 altered message by 3 10111101
6 verifier output:  message is correct
```

note: here altering the message by 3 generated another message that's divisible by the fnGenerator, that's why verifier accepted it



The image shows a Jupyter Notebook interface. At the top, the Jupyter logo is followed by the filename 'result.txt' and a checkmark icon, with the text 'a few seconds ago' to the right. Below this is a menu bar with 'File', 'Edit', 'View', and 'Language' options. The main area displays a code cell with the following content:

```
1 message:          10011101
2 generatorFn:      1001
3 transmitted message: 10011101100
4 verifier output:  message is correct
5 altered message by 4 10001101
6 verifier output:  message is not correct
```

altering message by 4

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