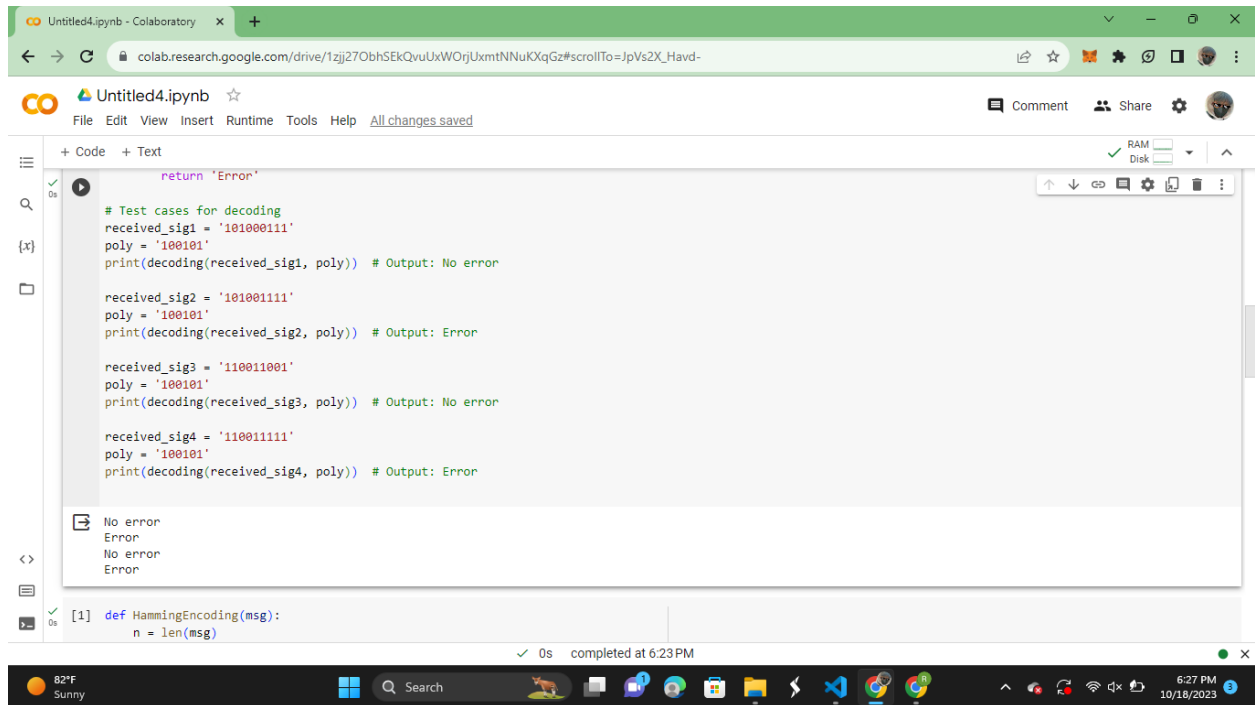


REWATI RAMAN KARKI
CE305
19856

1.



The screenshot shows a Jupyter Notebook titled 'Untitled4.ipynb' in a web browser. The notebook contains a Python script for decoding binary data using a Hamming code. The script defines a function `decoding` and tests it with four different received signals. The output of the script is displayed in the console, showing 'No error' for the first and third cases, and 'Error' for the second and fourth cases.

```
return 'Error'
```

```
# Test cases for decoding
received_sig1 = '101000111'
poly = '100101'
print(decoding(received_sig1, poly)) # Output: No error

received_sig2 = '101001111'
poly = '100101'
print(decoding(received_sig2, poly)) # Output: Error

received_sig3 = '110011001'
poly = '100101'
print(decoding(received_sig3, poly)) # Output: No error

received_sig4 = '110011111'
poly = '100101'
print(decoding(received_sig4, poly)) # Output: Error
```

```
No error
Error
No error
Error
```

```
[1] def HammingEncoding(msg):
    n = len(msg)
```

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2.

colab.research.google.com/drive/1zjj27ObhSEkQvuUxWOrjUxmtNNuKXqGz#scrollTo=JpVs2X_Havd-

Hw2-CE305-REWATl.ipynb

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0s

```
org_sig2 = '1001011'
encoded_msg2 = HammingEncoding(org_sig2)
print(encoded_msg2) # Output: '10110010011'

received_sig1 = '1010101'
result1 = HammingDecoding(received_sig1, 3)
print(result1) # Output: 'No error'

received_sig2 = '1010001'
result2 = HammingDecoding(received_sig2, 3)
print(result2) # Output: 'Error at Position 5, and correct data: 1010101'

received_sig3 = '10110010011'
result3 = HammingDecoding(received_sig3, 4)
print(result3) # Output: 'No error'

received_sig4 = '10110000011'
result4 = HammingDecoding(received_sig4, 4)
print(result4) # Output: 'Error at Position 7, and correct data: 10110010011'
```

<>

```
1010101
10110010011
No error
Error at Position 5, and correct data: 1010101
No error
Error at Position 7, and correct data: 10110010011
```

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