

Gonzales, Joachim Lowe Z.

Tuatis, Juan Francis C.

Quine-McCluskey Coding Assignment Documentations

Conversation with Mr. Gozales regarding the code:


Permission to take a screenshot our convo to serve as a proof/documentation for this assignment?

Joachim unsent a message

Yes sir

Nov 9, 2023, 6:19 AM

<https://replit.com/talk/learn/Python-Quine-McCluskey-Algorithm/14461>



Post

<https://github.com/int-main/Quine-McCluskey/blob/master/Quine%20McCluskey.py>

github.com

You replied to yourself

<https://replit.com/talk/learn/Python-Quine-McCluskey-Algorithm/14461>

Eto jud ganda explained yung bawat function

Di ko pa tapos basahin thou

ay pre try natin google collab na lang mag code

Gegegegegege

Nov 21, 2023, 5:58 PM



Maya ko pa gagawin pre



egege pre wala parin ako idea kung ano matutulong ko e HAHAHAHHA

Mga 3 ko simulan try ko lang



Coconvert string to list to e tapos ssplit mo

<https://colab.research.google.com/notebooks/intro.ipynb>



Welcome To Colaboratory

try mo nga boi kung maaccess mo

Oo pre



Nov 26, 2023, 2:07 PM

Ganito pala magiging flow non pre
-Bali may dalawang input tayo
Minterms and variables both strings.

-Coconvert natin strings to list
- Convert to binary



-Then gagamit tayo ng function which is yung number of 1s mag gogroup



Saang part ka na?

Feeling ko pre okay na yung inputs



oo pre

ano na next nagagawin?



ano na pre checking kung may duplicate input

You replied to Jadenm

boi di mo ginawang list yung sa first part?

yung sop ba?

oo pre magiging list yon talaga dapat

ang iniisip ko paano coconvert to binary



AHHAHAHAHAHA



```
UL = (var ** 2) - 1 # Getting the square of the variable value and subtracting 1 gives the
                    # upper limit, max minsum.

print("Minsum is from " + str(LL) + " to " + str(UL) + ".")

minl = input("What are the minsums: ")
min = [int(x) for x in minl.strip().split()] # converts the elements of the list into
return var, LL, UL, SOP

var, LL, UL, SOP = Var_Sol()

print("Number of variables: [var]")
print("Minsum range: [LL] to [UL]")
print("Entered minsums: [SOP]")

How many variables would you like to use? 2
Minsums is from 8 to 3.
What are the minsums: 1 2
Number of variables: 2
Minsum range: 8 to 3
Entered minsums: [1, 2]
class "List">
```

list na ah?

ayyyyyyyyyyy



AHAHAHAHAHAHA

eto pinaka bagong ver pre



quine_mccluskey_coding_assignment.py
1.31 KB

try natin sa github mag collab

gawa ka github pre

github tayo mag lapag



lagay mo username mo dito para maadd kita

Nov 27, 2023, 9:33 AM

Okay lang pre

ano na matutulong ko yah?

Yung inupload ko boi sa github

tangina bat may n-word don HAHAAHAAH

You replied to Joachim

Yung inupload ko boi sa github

ano na next dito pre?

Binary na pre

Di ko na alam kung paano HAHAAHAAHA

dito natigil yung code output no?

```
checking.append(mintere)

How many variables would you like to use? 2
Mintere is from 0 to 3.
What are the mintere: 1 2
Number of variables: 2
Mintere range: 0 to 3
Entered mintere nigga: [1, 2]
```

Ohsmim

medyo naayos ko yata (?) HAHAAHAA nung inalis ko sa fuction pre gumana siya HAHAAHAA pero wala na ko idea ano next step

Me too son me too



HAHAHAHAHAHAHAHA

Nov 27, 2023, 11:00 AM

okay na ba to yah?

```
if mintere in 0:
    if (int.floor(mintere / mintere) != 1.0):
        raise ValueError("The (count_str) mintere (mintere) must be an integer.")
    except:
        raise ValueError("The (count_str) mintere (mintere) must be an integer.")

if not (lower <= mintere <= upper):
    raise ValueError("The (count_str) term is not within the limits of (lower) to (upper).")

checking.append(mintere)

print(f"The new checked mintere are: {checking}")
# return checking

How many variables would you like to use? 2
Mintere is from 0 to 3.
What will be the mintere to be used? 1 1 2 2
Number of variables: 2
Mintere range: 0 to 3
Entered mintere: [1, 1, 2, 2]
There are repeated mintere, should I remove the repeated values? (Y/N): Y
The new checked mintere are: [1, 2]
```

andon sa hub yung bagong code pre

sa file ko

Oo ya

Ginawa mong reference code ko?

You replied to Joachim

Ginawa mong reference code ko?

medyo HAHAAHA tapos pinacorrect ko sa chat gpt

HAHAHAHAHAHAHAHA gesi gesi

Binary naman oyats

bali ang ginawa ko nilabas ko lang talaga siya sa function HAHAAHA

You replied to Joachim

Binary naman oyats

999

Joachim replied to you

999

What gamit na lang tayong bin function

Iterations na kasi yung grouping don



Tapos gagamit na na pandas df

Binary Encoded Minterms:
Minterm 0: 00000
Minterm 1: 00001
Minterm 2: 00010
Minterm 4: 00100
Minterm 7: 00111
Minterm 10: 01010
Minterm 15: 01111
Minterm 18: 10010
Minterm 22: 10110

Pwede naman

Oo yan mas okay

Ano ginawa mo boi?



```
print("\nBinary Encoded Minterms:")  
for binary_representation, original_minterm in zip(encoded_result, indicator_result):  
    print(f"Minterm {original_minterm}: {binary_representation}")
```



Ano tinanggal niya?

instead na cinocall niya yung for loop for 1st, 2nd shifts gumawa siya bagong for loop na nakadepende sa encoded, at indicator



Update mo github boi

okie na pre

pero di ko pa inalis yung for loop para sa 1st, 2nd

Pwede na natin i neglect to



Wala na yan pre



Yuny if else



yung buong for loop? or yung try saka except lang?



Pwede naman tayo gumamit ng bin pre no need mag import ng numpy

pero di naumusad from there HAHHAHA

Usually ginagawa ni numpy, gumagawa lang siya ng array e



2D or 3D array

↩ You replied to Joachim

Pwede naman tayo gumamit ng bin pre no need mag import ng numpy

di nga natin to nagamit diba?

Need pa rin pre

Pati pandas

Kasi gagawa tayo ng table pre



Para don niya istore

egege panoorin ko muna recording nila toni baka may makuha akong usefull

Bali coconvert natin yung code natin to numpy array pre

Tapos gagamit din tayo dataframe

Nakalimutan ko na itertool




```
#Prime implicants
def prime_implicants(str1, str2):
    differences = sum(c1 != c2 for c1, c2 in zip(str1, str2))
    return differences == 1

# Replace differing bits with a dash
def replace_with_dash(str1, str2):
    return ''.join(c1 if c1 == c2 else '-' for c1, c2 in zip(str1, str2))

paired_minterms = []
paired_binary = []
pairing = {}

for i in range(len(grouped_binary)):
    for j in range(i + 1, len(grouped_binary)):
        if prime_implicants(grouped_binary[i][2], grouped_binary[j][2]):
            change = replace_with_dash(grouped_binary[i][2], grouped_binary[j][2])
            paired_binary.append(change)
            paired_minterms.append((grouped_binary[i][0], grouped_binary[j][0]))
            pairing = dict(zip(paired_minterms, paired_binary))

df = pd.DataFrame(list(pairing.items()), columns=['Minterms', 'Binary Representation'])
print(df)
```

	Minterms	Binary Representation
0	(1, 5)	0-01
1	(4, 5)	010-
2	(4, 12)	-100
3	(5, 13)	-101
4	(8, 12)	1-00
5	(12, 13)	110-
6	(13, 15)	11-1

Nov 28, 2023, 2:06 AM

Nag update ako ng notfinal.py sa github pre

Tulog na ako HAHAAHAHA

Nov 28, 2023, 5:49 AM

Ang next step ay? Compare ulit no?

nageerror pre?

list out of range?

🔍 quine

4 results



Close

Pre



Iniisip ko rin sa phases mag lagay siya ng variables AAHAHAHAHAHAHAHA

Nov 28, 2023, 7:39 PM

tangina malapit na yah



```
Second Phase:
      Minterms Binary
0 ((0, 1), (0, 2)) 0-
1 ((0, 1), (1, 3)) 0-
2 ((0, 1), (2, 3)) --
3 ((0, 2), (1, 3)) --
4 ((0, 2), (2, 3)) -0
5 ((1, 3), (2, 3)) -1
```

konting chat gpt pa to



Gesi ya

Nov 28, 2023, 8:34 PM

update: AAHAHAHAHAHAH di parin maayos



```
Second Phase:
      Minterms Binary
0 ((0, 1), (0, 2)) --
1 ((0, 1), (1, 3)) --
2 ((0, 1), (2, 3)) --
3 ((0, 2), (1, 3)) --
4 ((0, 2), (2, 3)) --
5 ((1, 3), (2, 3)) --
```

ito ba boi?



```
Prime Implicator Chart
  A B C D 0 1 4 5 6 8 9 10 12 15
0 1 1 1 1
1 1 0 - 0      X 0
2 0 1 - 0      X 0
3 0 - 0 - X X X 0
4 - 0 0 - X X      X 0
5 - - 0 0 X X      X 0
6      / / / / / / / /
```



ss mo second iteration

ang meron lang sa output na yon "0-0-","-00-","--00"



```
ITERATION 2
Minterm Pairs A B C D
0 [4, 12, 0, 8] - - 0 0
1 [9, 1, 0, 8] - 0 0 -
2 [5, 1, 4, 0] 0 - 0 -
```



may binalik siyang uncomparred values from previous pre

```
Click here to ask Blackbot to help you code faster
#3rd phase check to group it by distict pair
phase_3 = phase_2.groupby('Binary')['Minterms'].apply(list).reset_index()

print("\nThird Phase:")
print(phase_3)

[0] ✓ 0.0s

Third Phase:
      Binary      Minterms
0 --00- [[(0, 4), (8, 12)], [(0, 8), (4, 12)]]
1 0-0- [[(0, 1), (4, 5)], [(0, 4), (1, 5)]]
```

Dec 2, 2023, 2:23 PM

<https://github.com/int-main/Quine-McCluskey/blob/master/Quine%20McCluskey.py>

github.com

may nakita ko boi na pang final tab kaso di ko magets HAHahaha baka ikaw magets mo HAHahaha

Dec 2, 2023, 2:45 PM

Eyyyyyy

Mamaya pre

Indicator and encoded na empty list ang babaguhin?

Lahat boi

Gawin mo lang indicator

Para universal accepted

And di nakaklito

so bali yung mga indicator_results and encoded_results will be changed to indicator at encoded na lang?

Opo

okay na boi

Wait aupload ako code maya maya

↩ You replied to Joachim

Wait aupload ako code maya maya

don sa ver 11_28_23 na file yung bago pre

Dec 2, 2023, 10:45 PM

Gegegegegege upload ko later pre

Ya paupdate sa github

Here's what i want you to do sa part na ito

```
117 # Print indicators
118 def print_indicators(tabulated, minterms):
119     differences = findDifferences(tabulated, minterms)
120     return differences, minterms
121
122 # Replace dashes with 0s and 1s
123 def replace_dashes(tabulated, minterms):
124     return replace_dashes(tabulated, minterms)
125
126 # Print indicators, replace dashes, and return minterms
127 def print_indicators_replace_dashes(tabulated, minterms):
128     differences, minterms = print_indicators(tabulated, minterms)
129     tabulated = replace_dashes(tabulated, minterms)
130     return differences, minterms
131
132 # Main function
133 def main():
134     # Read input
135     tabulated = read_input()
136     minterms = read_input()
137     differences, minterms = print_indicators_replace_dashes(tabulated, minterms)
138     print_differences(differences)
139     print_minterms(minterms)
140     return differences, minterms
141
142 # Run the main function
143 if __name__ == '__main__':
144     main()
```



starting from that to dulo pre

ganito dapat mangyari, gawa ka ng function pre na sa loob si tabulated, minterms ,
at indicator

kasi pre maganda kasi gawin diyan yung A B C D pa rin mag rereflect



na mag rereplace with dashes

bali?
def replace(tabulated, minterms, indicator)?

Opo

May inupload me pre


not_final





Gawa muna ako uts



Github Collaboration Files Proof:

main

1 Branch

0 Tags


Q

Go to file

t


Add file











<> Code

disaypoll

Update QMA FINAL CODE!!!!!!!!!!!!!!l.py

956957a · 14 hours ago

60 Commits

 12_3_23_Ver.py	Rename quine_mccluskey_coding_assignment_11_28_23_ver....	2 weeks ago
 Final_na_to - Copy.py	Update Final_na_to - Copy.py	3 days ago
 Final_na_to.py	Update Final_na_to.py	3 days ago
 Not final.ipynb	Add files via upload	3 weeks ago
 QMA FINAL CODE!!!!!!!!!!!!!!l.py	Update QMA FINAL CODE!!!!!!!!!!!!!!l.py	14 hours ago
 Quine_McCluskey_Documentation.ipynb	Add files via upload	2 weeks ago
 README.md	Initial commit	3 weeks ago
 not_final.py	Update not_final.py	2 weeks ago
 notfinal.py	Update notfinal.py	2 weeks ago
 quine_mcdluskey_coding_assignment.py	Update quine_mccluskey_coding_assignment.py	3 weeks ago