Tên: Thái Nguyên Quốc

MSSV: 079206015807

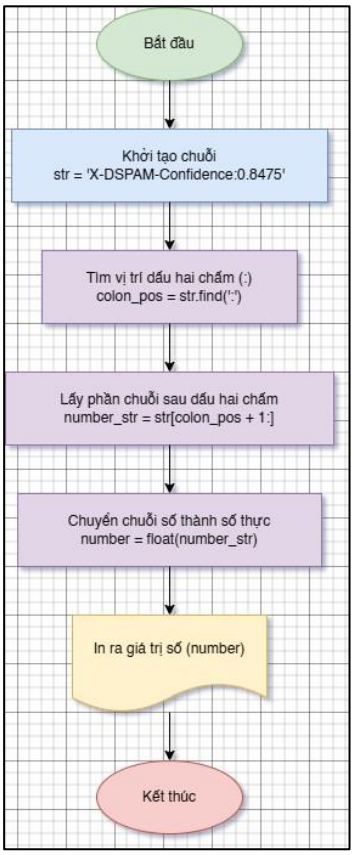
Chương 6:

```
'''Exercise 5: Take the following Python code that stores a string:'
str = 'X-DSPAM-Confidence:0.8475'
Use find and string slicing to extract the portion of the string after the colon
character and then use the float function to convert the extracted string into a
floating point number.
'''
str = 'X-DSPAM_Confidence:0.8475'
colon_pos = str.find(':')
number_str = str[colon_pos + 1:]
number = float(number_str)
print(number)
```

Python

```
0.8475
```

Lưu đồ giải thuật:



Exercise 6:

Read the documentation of the string methods at
https://docs.python.org/3.5/library/stdtypes.html#string-methods

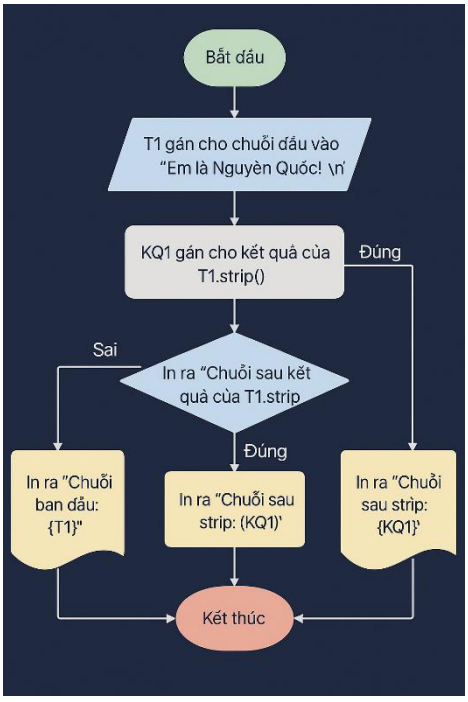
STRIP

#ví dụ 1: Loại bỏ khoảng trắng mặc định

```
# ví dụ 1: loại bỏ khoảng trắng mặc định
T1 = "      Em là Nguyên Quốc!  \n"
KQ1 = T1.strip()
print(f"Chuỗi ban đầu: '{T1}'")
print(f"Chuỗi sau strip: '{KQ1}'")
```

```
Chuỗi ban đầu: '      Em là Nguyên Quốc!
'
Chuỗi sau strip: 'Em là Nguyên Quốc!'
```

Lưu đồ giải thuật:

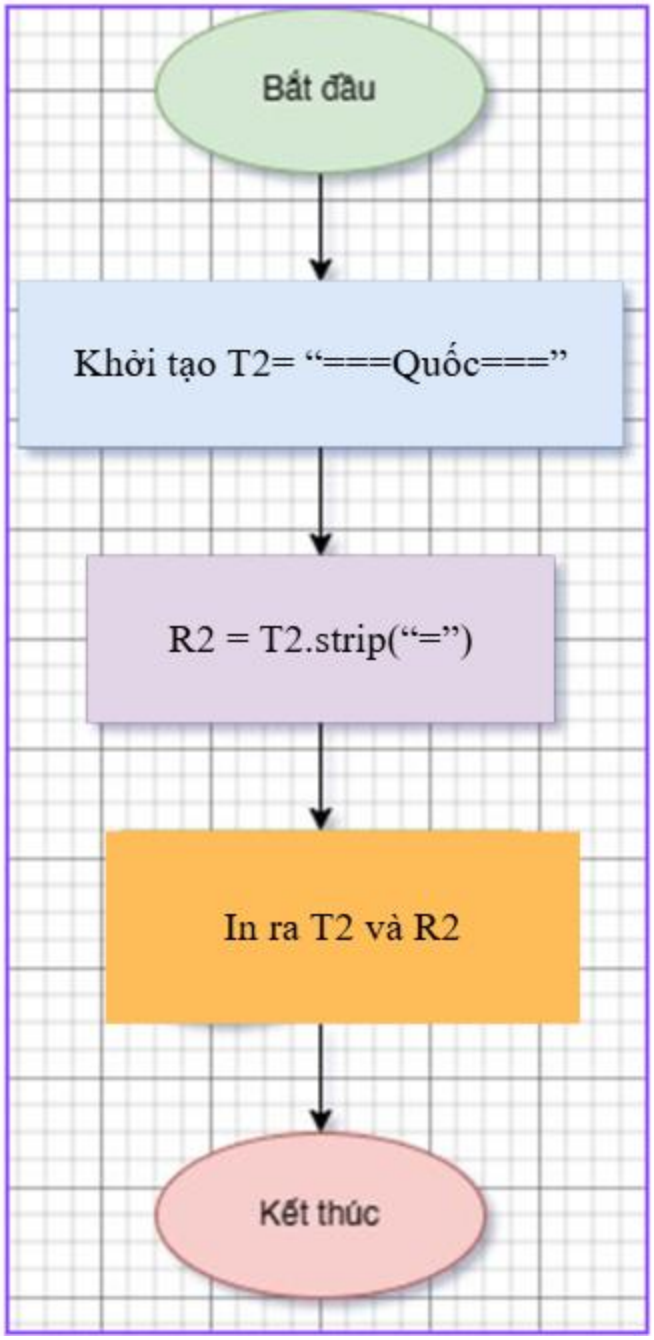


#ví dụ 2:

```
#ví dụ 2: loại bỏ kí tự cụ thể
T2 = "==== Quốc ====="
KQ2 = T2.strip("=")
print(f"chuỗi ban đầu: '{T2}")
print(f"chuỗi sau strip('='): '{KQ2}'")
```

```
chuỗi ban đầu: '==== Quốc =====
chuỗi sau strip('='): ' Quốc '
```

Lưu đồ giải thuật:

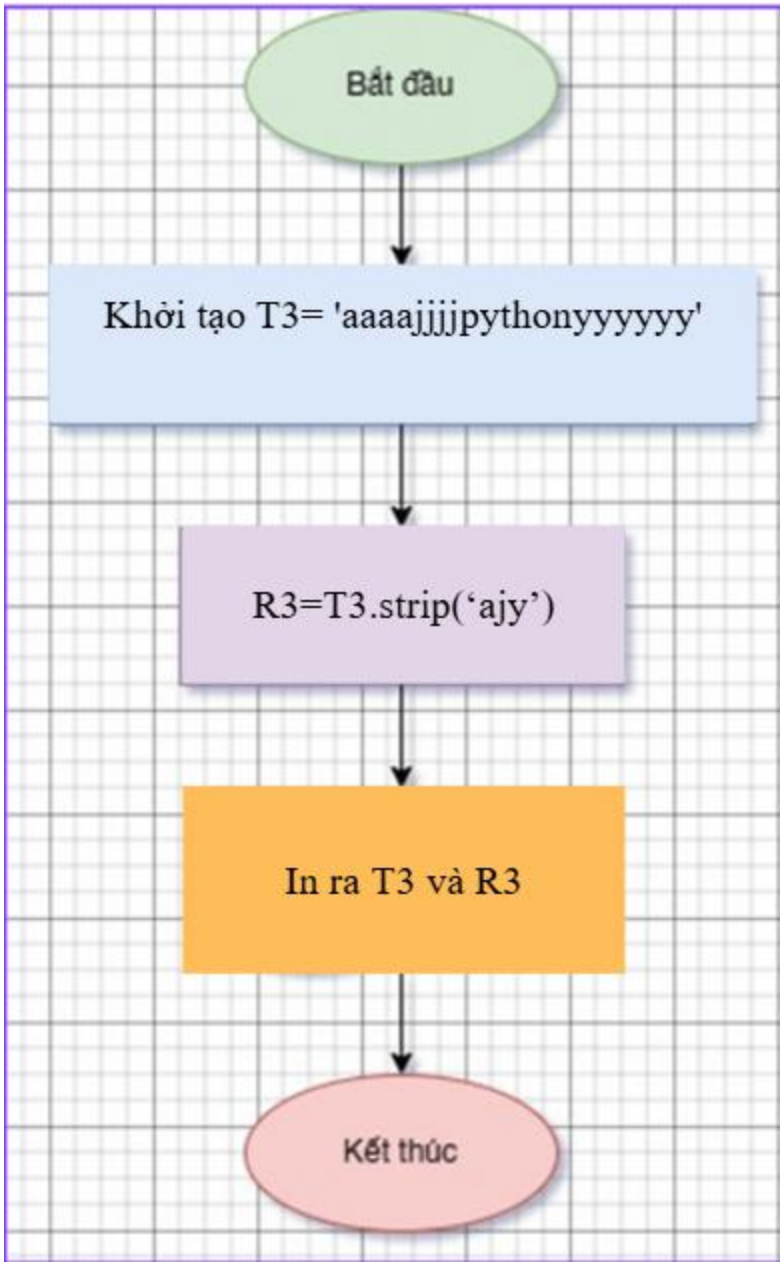


#ví dụ 3:

```python
#ví dụ 3: loại bỏ tập hợp kí tự
T3 = 'aaaajjjjpythonyyyyyy'
#loại bỏ 'a', 'j', 'y'
#cắt cho đến khi không còn
KQ3 = T3.strip('ajy')
print(f"chuôi ban đầu: '{T3}'")
print(f"chuỗi sau strip('ajy'): {KQ3}")
```

```
chuôi ban đầu: 'aaaajjjjpythonyyyyyy'
chuỗi sau strip('ajy): python
```

Lưu đồ giải thuật:



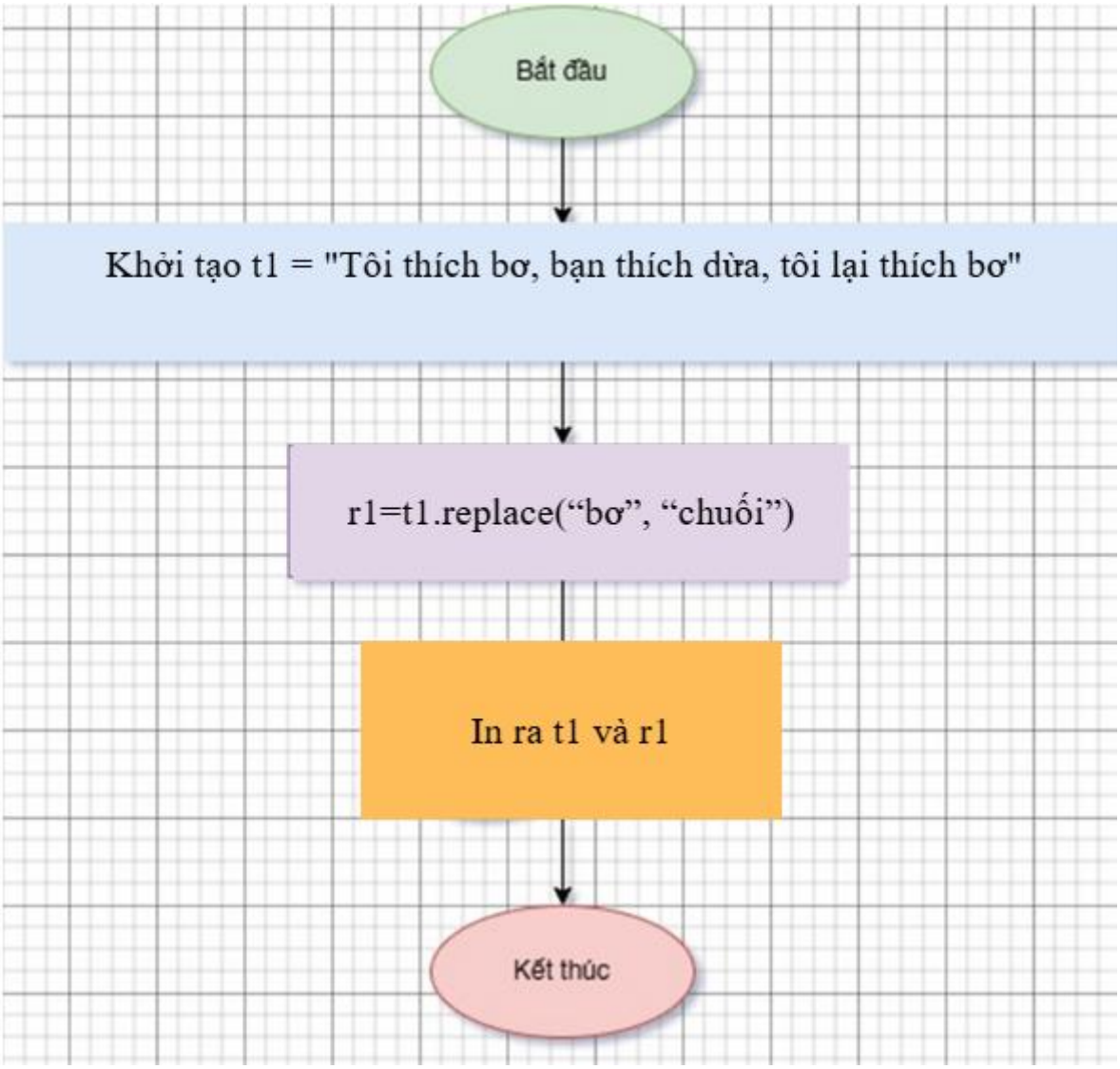
REPLACE:

#ví dụ 1:

```python
#ví dụ 1: thay thế tất cả các lần xuất hiện
t1 = "Tôi thích bơ, bạn thích dừa, tôi lại thích bơ"
r1 = t1.replace("bơ", "chuối")
print(f"Chuỗi ban đầu: '{t1}'")
print(f"chuỗi sau replace: '{r1}'")
```

```
Chuỗi ban đầu: 'Tôi thích bơ, bạn thích dừa, tôi lại thích bơ'
chuỗi sau replace: 'Tôi thích chuối, bạn thích dừa, tôi lại thích chuối'
```

Lưu đồ giải thuật:

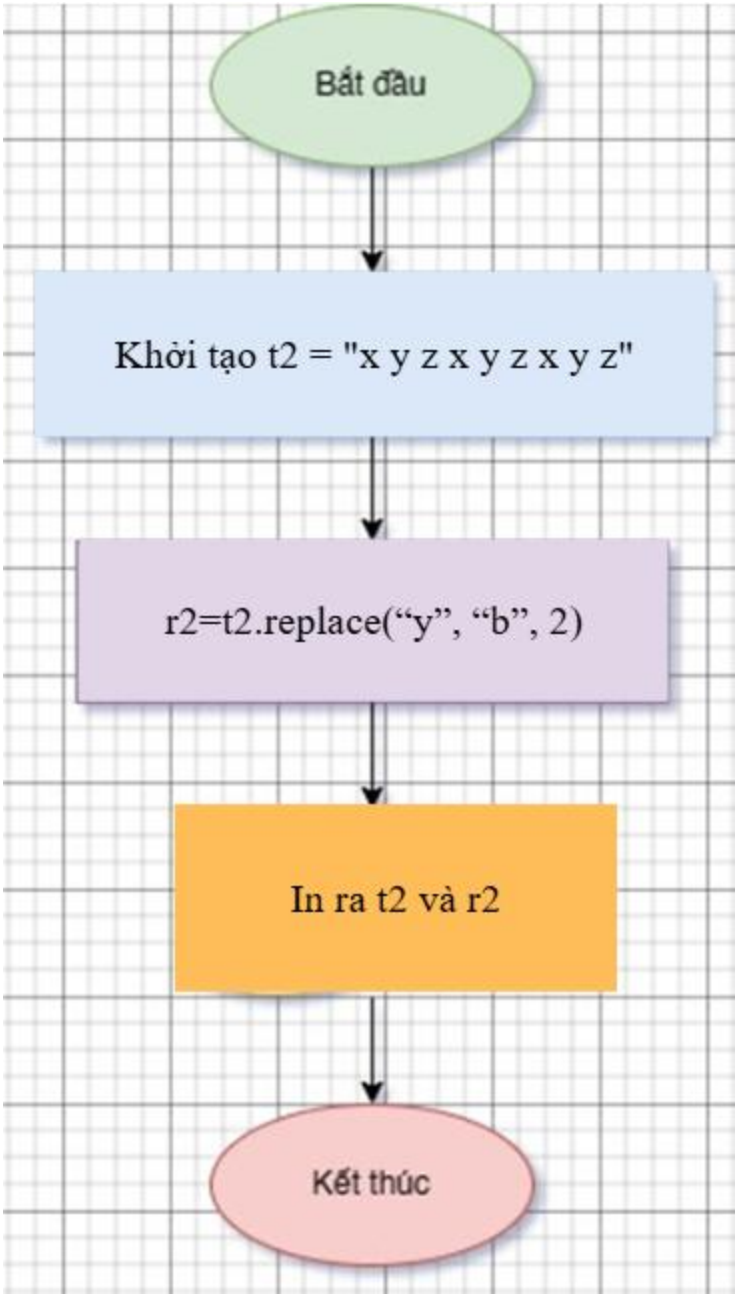


#ví dụ 2:

```
#ví dụ 2: thay thế với giới hạn lần (count)
t2 = "x y z x y z x y z"
r2 = t2.replace("y", "b", 2)
print(f"\nchuỗi ban đầu: '{t2}'")
print(f"chuỗi sau replace: '{r2}'")
```

```
chuỗi ban đầu: 'x y z x y z x y z'
chuỗi sau replace: 'x b z x b z x y z'
```

Lưu đồ giải thuật:



CHƯƠNG 7:

Bài tập 1: Exercise 1: Write a program to read through a file and print the contents of the

file (line by line) all in upper case. Executing the program will look as follows:

```
python shout.py
Enter a file name: mbox-short.txt
FROM STEPHEN.MARQUARD@UCT.AC.ZA SAT JAN 5 09:14:16 2008
```

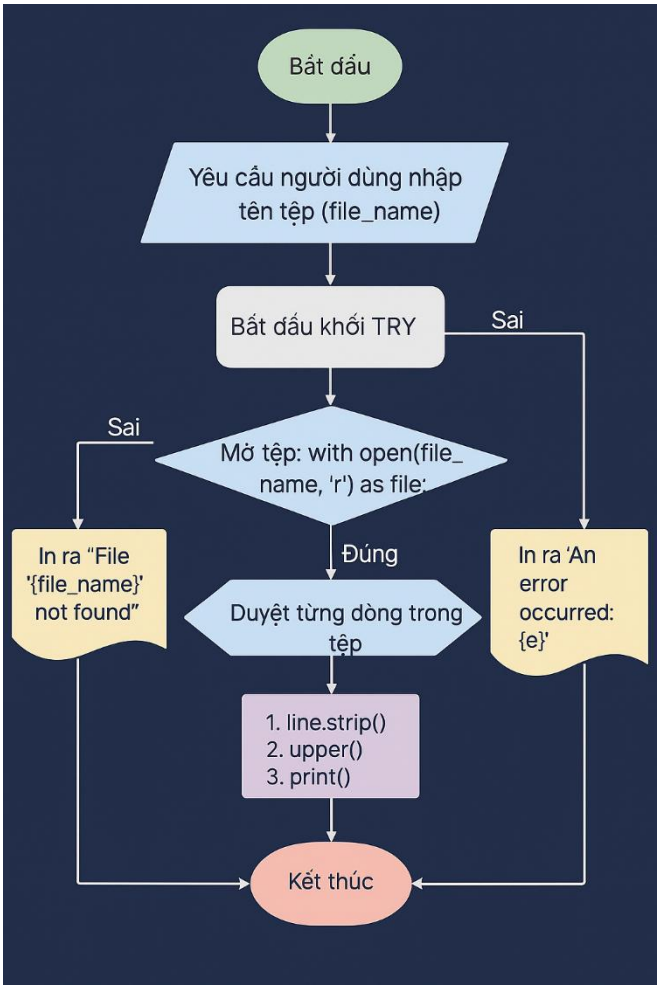
```
RETURN-PATH: <POSTMASTER@COLLAB.SAKAIPROJECT.ORG>
RECEIVED: FROM MURDER (MAIL.UMICH.EDU [141.211.14.90])
BY FRANKENSTEIN.MAIL.UMICH.EDU (CYRUS V2.3.8) WITH LMTPA;
SAT, 05 JAN 2008 09:14:16 -0500
```

```python
file_name = input()
print("Enter the file name: ", file_name)
try:
    with open(file_name, 'r') as file:
        for line in file:
            print(line.strip().upper())
except FileNotFoundError:
    print(f"File '{file_name}' not found")
except Exception as e:
    print(f"An error occured: {e}")
```

✓ 22.8s

```
Enter the file name:  mbox-short.txt
FROM STEPHEN.MARQUARD@UCT.AC.ZA SAT JAN  5 09:14:16 2008
RETURN-PATH: <POSTMASTER@COLLAB.SAKAIPROJECT.ORG>
RECEIVED: FROM MURDER (MAIL.UMICH.EDU [141.211.14.90])
BY FRANKENSTEIN.MAIL.UMICH.EDU (CYRUS V2.3.8) WITH LMTPA;
SAT, 05 JAN 2008 09:14:16 -0500
X-SIEVE: CMU SIEVE 2.3
RECEIVED: FROM MURDER ([UNIX SOCKET])
BY MAIL.UMICH.EDU (CYRUS V2.2.12) WITH LMTPA;
SAT, 05 JAN 2008 09:14:16 -0500
RECEIVED: FROM HOLES.MR.ITD.UMICH.EDU (HOLES.MR.ITD.UMICH.EDU [141.211.14.79])
BY FLAWLESS.MAIL.UMICH.EDU () WITH ESMTP ID M05EEFR1013674;
SAT, 5 JAN 2008 09:14:15 -0500
RECEIVED: FROM PAPLOO.UHI.AC.UK (APP1.PROD.COLLAB.UHI.AC.UK [194.35.219.184])
BY HOLES.MR.ITD.UMICH.EDU ID 477F90B0.2DB2F.12494 ;
5 JAN 2008 09:14:10 -0500
RECEIVED: FROM PAPLOO.UHI.AC.UK (LOCALHOST [127.0.0.1])
BY PAPLOO.UHI.AC.UK (POSTFIX) WITH ESMTP ID 5F919BC2F2;
SAT,  5 JAN 2008 14:10:05 +0000 (GMT)
MESSAGE-ID: <200801051412.M05ECIAH010327@NAKAMURA.UITS.IUPUI.EDU>
MIME-VERSION: 1.0
CONTENT-TRANSFER-ENCODING: 7BIT
```

Lưu đồ giải thuật:




```
Exercise 2: Write a program to prompt for a file name, and then read
through the file and look for lines of the form:
X-DSPAM-Confidence:0.8475
When you encounter a line that starts with “X-DSPAM-Confidence:” pull
apart the line to extract the floating-point number on the line. Count these
lines and then compute the total of the spam confidence values from these
lines. When you reach the end of the file, print out the average spam
confidence.
```

```python
file_name = input()
print("Enter the file name:",file_name)
try:
    with open(file_name, 'r') as file:
        total = 0.0
        count = 0
        for line in file:
            if line.startswith("X-DSPAM-Confidence:"):
                colon_pos = line.find(':')
                number_str = line[colon_pos + 1:].strip()
                number = float(number_str)
                total += number
                count += 1
        if count > 0:
            average = total / count
            print(f"Average spam confidence: {average}")
        else:
            print("No lines found with X-DSPAM-Confidence.")
except FileNotFoundError:
    print(f"File {file_name} not found.")
```

✓ 3.0s

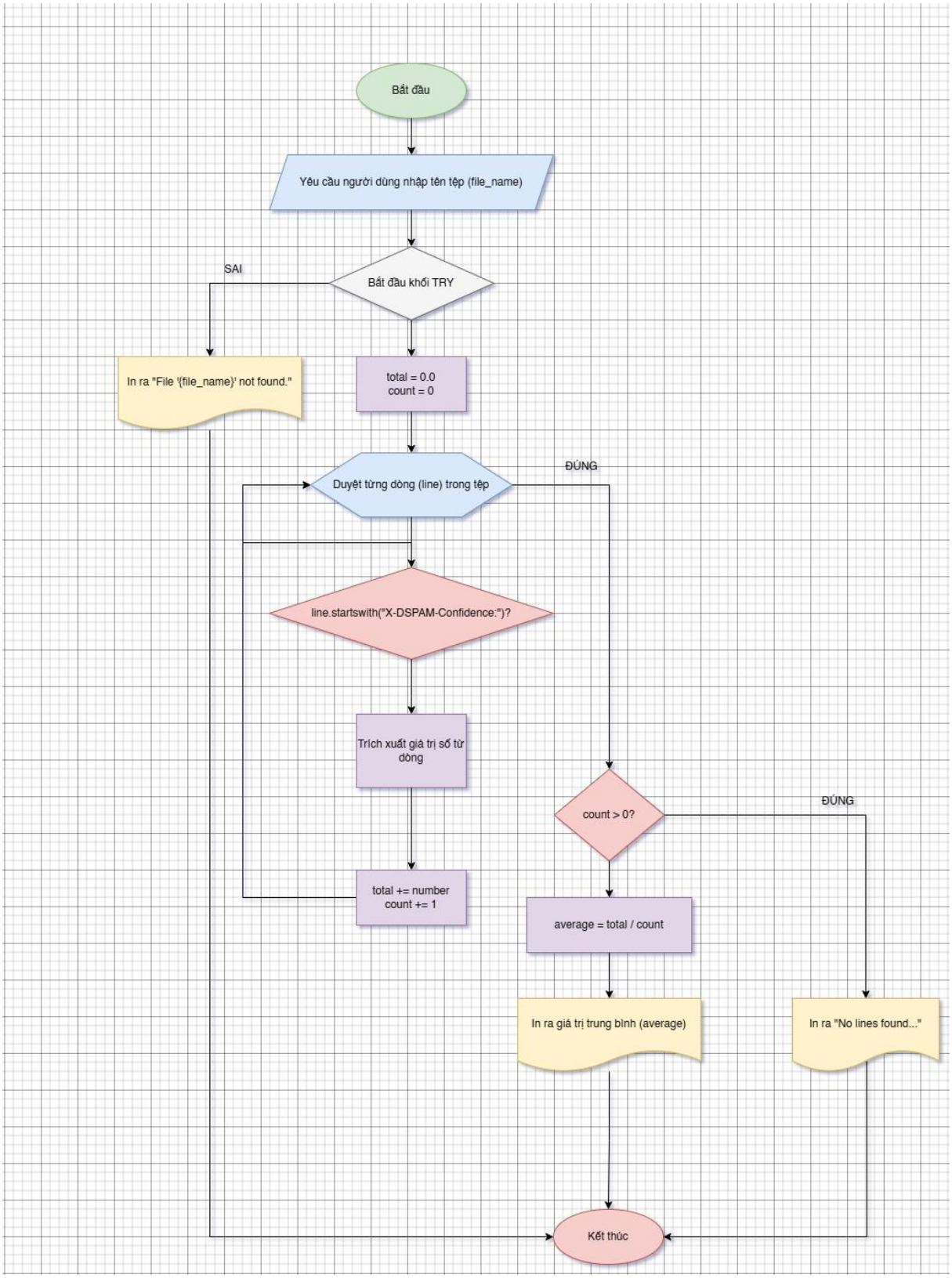
```
Enter the file name: mbox.txt
Average spam confidence: 0.8941280467445736
```

```
file_name = input()
print("Enter the file name:",file_name)
try:
    with open(file_name, 'r') as file:
        total = 0.0
        count = 0
        for line in file:
            if line.startswith("X-DSPAM-Confidence:"):
                colon_pos = line.find(':')
                number_str = line[colon_pos + 1:].strip()
                number = float(number_str)
                total += number
                count += 1
        if count > 0:
            average = total / count
            print(f"Average spam confidence: {average}")
        else:
            print("No lines found with X-DSPAM-Confidence.")
except FileNotFoundError:
    print(f"File {file_name} not found.")
```

✓ 7.8s

```
Enter the file name: mbox-short.txt
Average spam confidence: 0.7507185185185187
```

LƯU ĐỒ GIẢI THUẬT:



Exercise 3: Sometimes when programmers get bored or want to have a bit of fun, they add a harmless Easter Egg to their program Modify the program that prompts

the user for the file name so that it prints a funny message when the user types in
the exact file name “na na boo boo”. The program should behave normally for all other files which exist and don’t exist. Here is a sample execution of the program:

```
file_name = input()
print("Enter the file name: ",file_name)
if file_name == "na na boo boo":
    print("NA NA BOO BOO TO YOU - YOU HAVE BEEN PUNK'D!")
else:
    try:
        with open(file_name, 'r') as file:
            total = 0.0
            count = 0
            for line in file:
                count += 1
            print(f"There were {count} subject lines in {file_name}")
    except FileNotFoundError:
        print(f"File cannot  be opened: {file_name}")
```

✓ 3.8s

```
Enter the file name:  mbox.txt
There were 132045 subject lines in mbox.txt
```

```
file_name = input()
print("Enter the file name: ",file_name)
if file_name == "na na boo boo":
    print("NA NA BOO BOO TO YOU - YOU HAVE BEEN PUNK'D!")
else:
    try:
        with open(file_name, 'r') as file:
            total = 0.0
            count = 0
            for line in file:
                count += 1
            print(f"There were {count} subject lines in {file_name}")
    except FileNotFoundError:
        print(f"File cannot  be opened: {file_name}")
```

✓ 4.3s

```
Enter the file name:  mbox-short.txt
There were 1910 subject lines in mbox-short.txt
```

```
file_name = input()
print("Enter the file name: ",file_name)
if file_name == "na na boo boo":
    print("NA NA BOO BOO TO YOU - YOU HAVE BEEN PUNK'D!")
else:
    try:
        with open(file_name, 'r') as file:
            total = 0.0
            count = 0
            for line in file:
                count += 1
            print(f"There were {count} subject lines in {file_name}")
    except FileNotFoundError:
        print(f"File cannot  be opened: {file_name}")
```

✓ 6.7s

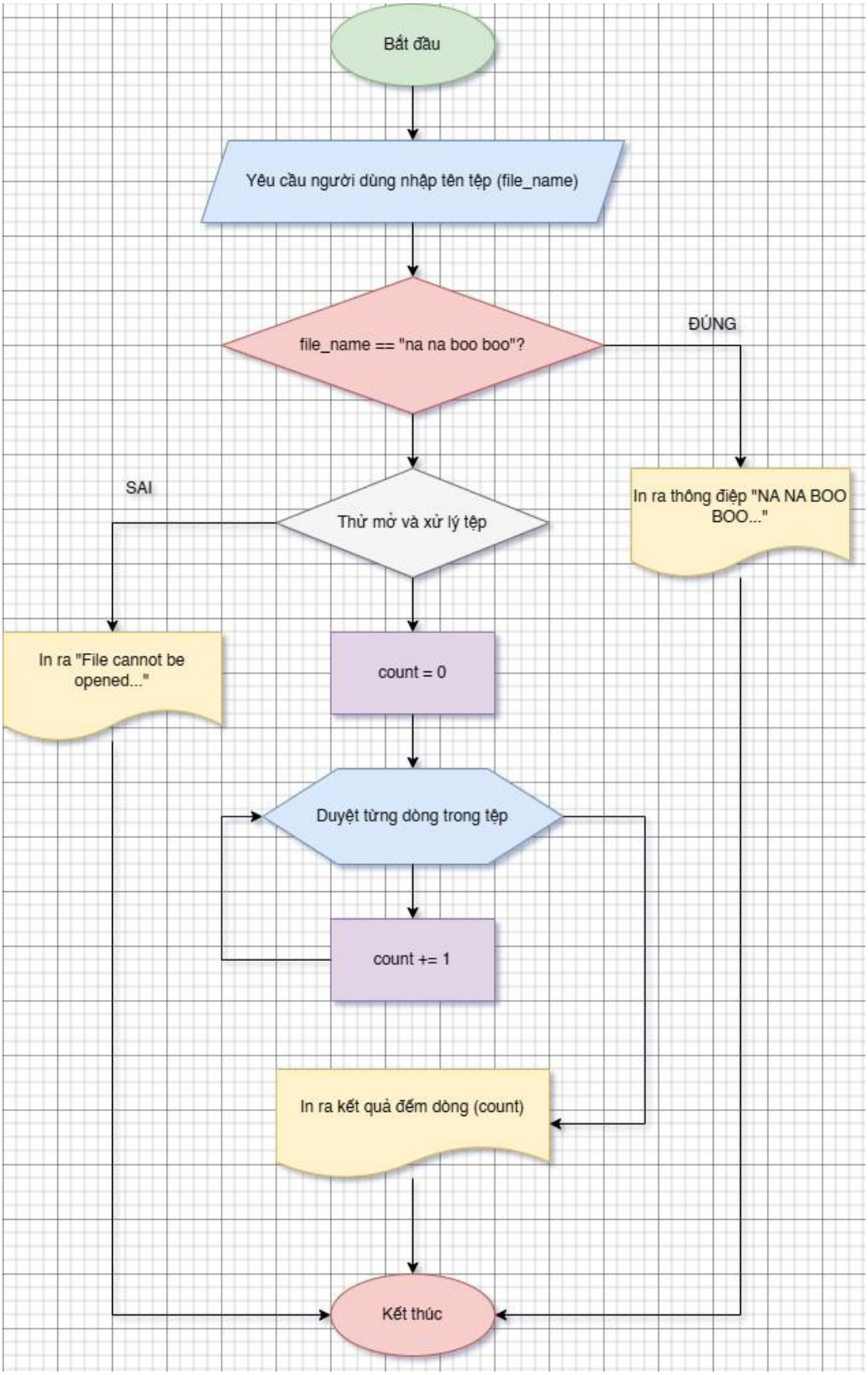
```
Enter the file name:  nanana.txt
File cannot  be opened: nanana.txt
```

```
file_name = input()
print("Enter the file name: ",file_name)
if file_name == "na na boo boo":
    print("NA NA BOO BOO TO YOU - YOU HAVE BEEN PUNK'D!")
else:
    try:
        with open(file_name, 'r') as file:
            total = 0.0
            count = 0
            for line in file:
                count += 1
            print(f"There were {count} subject lines in {file_name}")
    except FileNotFoundError:
        print(f"File cannot  be opened: {file_name}")
```

✓ 6.4s

```
Enter the file name:  na na boo boo
NA NA BOO BOO TO YOU - YOU HAVE BEEN PUNK'D!
```

Lưu đồ giải thuật:


Bắt đầu
Yêu cầu người dùng nhập tên tệp (file_name)
file_name == "na na boo boo"?
ĐÚNG
In ra thông điệp "NA NA BOO BOO..."
SAI
Thử mở và xử lý tệp
In ra "File cannot be opened..."
count = 0
Duyệt từng dòng trong tệp
count += 1
In ra kết quả đếm dòng (count)
Kết thúc