ECE 664: Homework 7
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Exercise 1

Python Code:

```python
#! /bin/python
import re
import sys

textfilename = sys.argv[1]

with open(textfilename,'r') as f: lines = f.readlines()

for i,line in enumerate(lines):
    # check if line matches regular expression
    # mix of dots and dashes
    #regex = re.compile(r'^[ \t]*d[ \t]*[.-]{,4}[ \t]*i[ \t]*[.-]{,4}[ \t]*a[ \t
        ]*[.-]{,4}[ \t]*g[ \t]*[.-]{,4}[ \t]*r[ \t]*[.-]{,4}[ \t]*a[ \t]*$')
    # either dots or dashes
    regex = re.compile(r'^[ \t]*d[ \t]*([.]{,4}|[-]{,4})[ \t]*i[ \t
        ]*([.]{,4}|[-]{,4})[ \t]*a[ \t]*([.]{,4}|[-]{,4})[ \t]*g[ \t
        ]*([.]{,4}|[-]{,4})[ \t]*r[ \t]*([.]{,4}|[-]{,4})[ \t]*a[ \t]*$')

    match = regex.match(line[:-1])
    if match is not None:
        print('line number '+str(i)+' in file contains match: '+ match.group() +'\n'
            )
        flag=True
        #break

if not flag: print('SPAM free mail!! ')
```

Input text file:

```
diagra
d i  a   g   r  a
d - i - a - g - r - a
d .. i - a ... g .ra
    d  ..-.  i a ...   g --.- ra
ajsdnk
d  ------  iagra
```

Output:

```
line number 1 in file contains match: diagra

line number 2 in file contains match: d i  a   g   r  a

line number 3 in file contains match: d - i - a - g - r - a

line number 4 in file contains match: d .. i - a ... g .ra
```