

LAB - 5

Name : Manan Modi

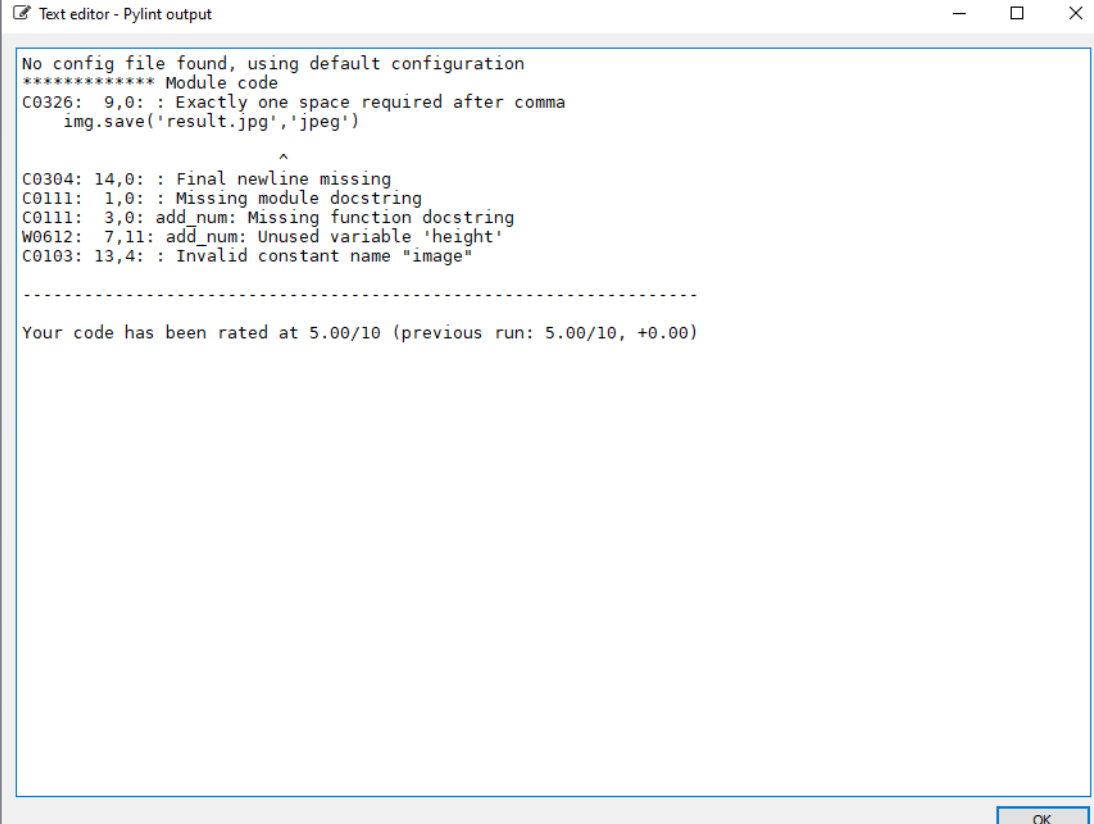
Student ID : 202001254

Course : Software Engineering

1. Github repository for which we have done static analysis.

https://github.com/Show-Me-the-Code/python/blob/master/4disland/0000/add_num.py

Screenshot of Static analysis of above file:



The screenshot shows a window titled "Text editor - Pylint output". The text inside the window is as follows:

```
No config file found, using default configuration
***** Module code
C0326:  9,0: : Exactly one space required after comma
      img.save('result.jpg','jpeg')
      ^
C0304: 14,0: : Final newline missing
C0111:  1,0: : Missing module docstring
C0111:  3,0: add_num: Missing function docstring
W0612:  7,11: add_num: Unused variable 'height'
C0103: 13,4: : Invalid constant name "image"

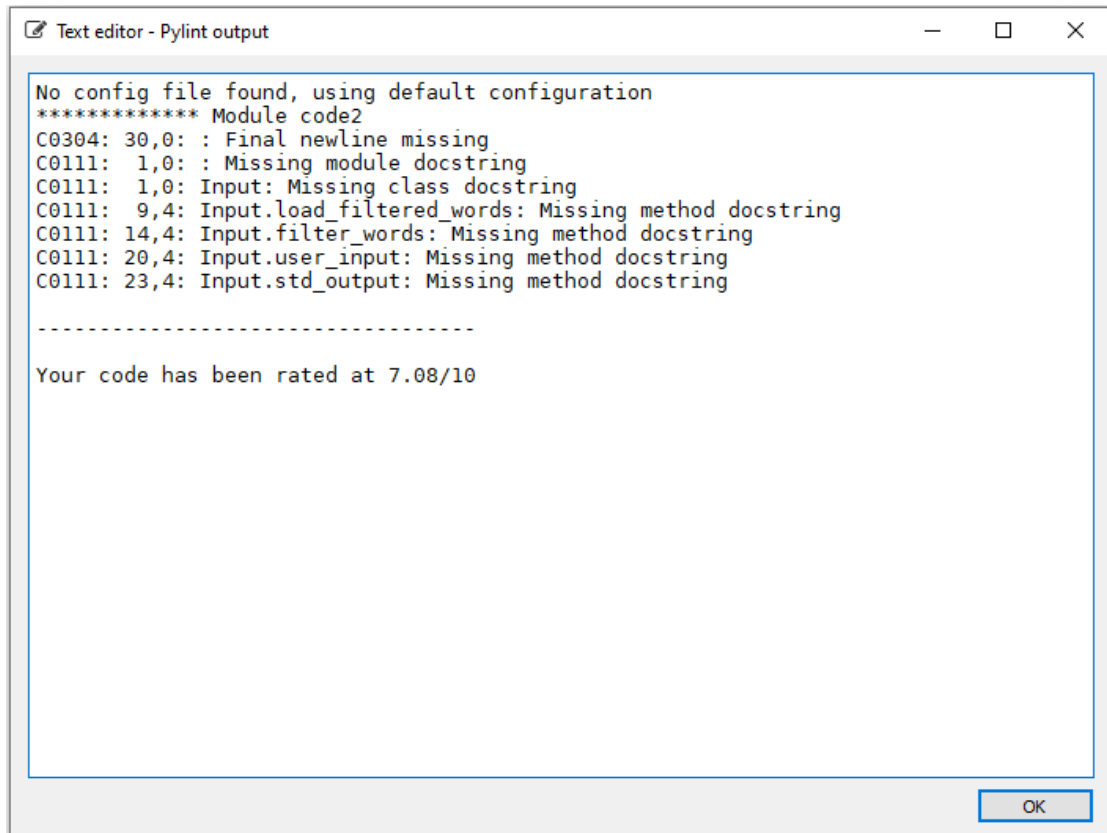
-----
Your code has been rated at 5.00/10 (previous run: 5.00/10, +0.00)
```

An "OK" button is visible in the bottom right corner of the window.

2. Github repository for which we have done static analysis.

<https://github.com/Show-Me-the-Code/python/blob/master/A1014280203/11/11.py>

Screenshot of Static analysis of above file:



```
No config file found, using default configuration
***** Module code2
C0304: 30,0: : Final newline missing
C0111: 1,0: : Missing module docstring
C0111: 1,0: Input: Missing class docstring
C0111: 9,4: Input.load_filtered_words: Missing method docstring
C0111: 14,4: Input.filter_words: Missing method docstring
C0111: 20,4: Input.user_input: Missing method docstring
C0111: 23,4: Input.std_output: Missing method docstring

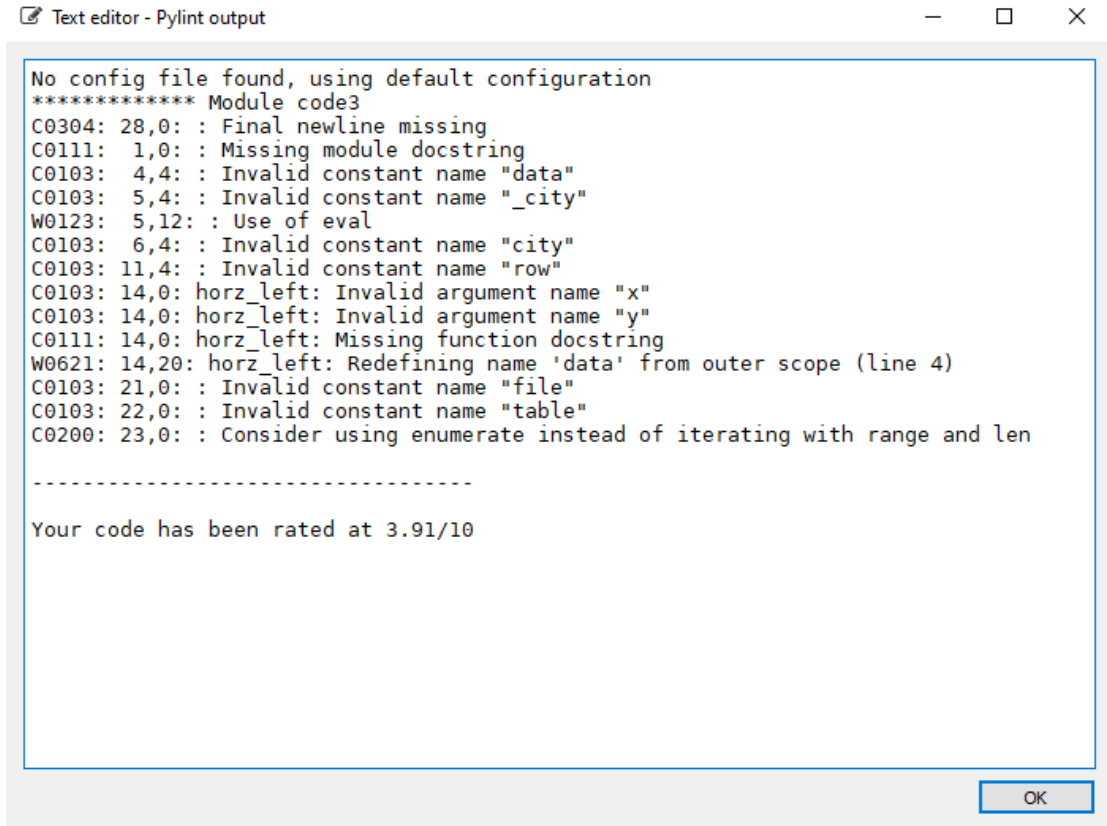
-----

Your code has been rated at 7.08/10

OK
```

3. Github repository for which we have done static analysis.
<https://github.com/Show-Me-the-Code/python/blob/master/A1014280203/15/15.py>

Screenshot of Static analysis of above file:



```
No config file found, using default configuration
***** Module code3
C0304: 28,0: : Final newline missing
C0111: 1,0: : Missing module docstring
C0103: 4,4: : Invalid constant name "data"
C0103: 5,4: : Invalid constant name "_city"
W0123: 5,12: : Use of eval
C0103: 6,4: : Invalid constant name "city"
C0103: 11,4: : Invalid constant name "row"
C0103: 14,0: horz_left: Invalid argument name "x"
C0103: 14,0: horz_left: Invalid argument name "y"
C0111: 14,0: horz_left: Missing function docstring
W0621: 14,20: horz_left: Redefining name 'data' from outer scope (line 4)
C0103: 21,0: : Invalid constant name "file"
C0103: 22,0: : Invalid constant name "table"
C0200: 23,0: : Consider using enumerate instead of iterating with range and len

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Your code has been rated at 3.91/10
```

4. Github repository for which we have done static analysis.
<https://github.com/Show-Me-the-Code/python/blob/master/A1014280203/25/25.py>

Screenshot of Static analysis of above file:

```
Text editor - Pylint output

No config file found, using default configuration
***** Module code4
C0304: 95,0: : Final newline missing
C0111: 1,0: : Missing module docstring
E0401: 3,0: : Unable to import 'pyaudio'
C0111: 17,0: make_audio: Missing function docstring
C0103: 18,4: make_audio: Invalid variable name "p"
C0103: 32,4: make_audio: Invalid variable name "wf"
W0612: 26,8: make_audio: Unused variable 'i'
C0111: 49,0: get_token: Missing function docstring
C0111: 54,0: speech_to_text: Missing function docstring
C0111: 75,0: make_action: Missing function docstring
W0621: 75,16: make_action: Redefining name 'texts' from outer scope (line 94)
E1101: 87,8: make_action: Module 'win32api' has no 'ShellExecute' member
C0103: 94,4: : Invalid constant name "texts"
C0411: 4,0: : standard import "import wave" should be placed before "import requests"
C0411: 5,0: : standard import "import base64" should be placed before "import requests"
C0411: 6,0: : standard import "import json" should be placed before "import requests"

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Your code has been rated at 5.79/10

OK
```

5. Github repository for which we have done static analysis.
<https://github.com/joeyajames/Python/blob/master/Trees/BinarySearchTree.py>

Screenshot of Statisc analysis of above file:

```
Text editor - Pylint output

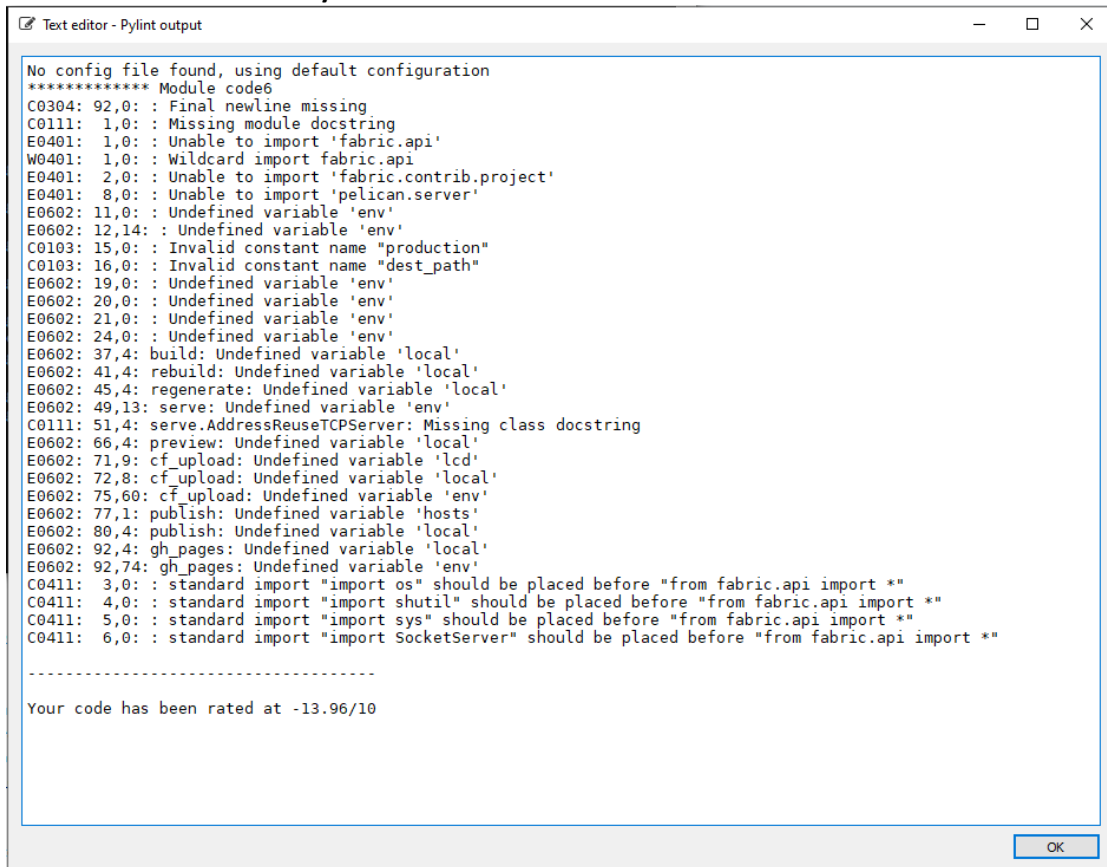
No config file found, using default configuration
***** Module code4
W0122: 4,0: : Found indentation with tabs instead of spaces
W0122: 5,0: : Found indentation with tabs instead of spaces
W0122: 6,0: : Found indentation with tabs instead of spaces
W0122: 7,0: : Found indentation with tabs instead of spaces
C0303: 8,0: : Trailing whitespace
W0122: 9,0: : Found indentation with tabs instead of spaces
W0122: 10,0: : Found indentation with tabs instead of spaces
W0122: 11,0: : Found indentation with tabs instead of spaces
C0303: 12,0: : Trailing whitespace
W0122: 13,0: : Found indentation with tabs instead of spaces
W0122: 14,0: : Found indentation with tabs instead of spaces
W0122: 15,0: : Found indentation with tabs instead of spaces
W0122: 16,0: : Found indentation with tabs instead of spaces
W0122: 17,0: : Found indentation with tabs instead of spaces
W0122: 18,0: : Found indentation with tabs instead of spaces
W0122: 19,0: : Found indentation with tabs instead of spaces
W0122: 20,0: : Found indentation with tabs instead of spaces
W0122: 21,0: : Found indentation with tabs instead of spaces
W0122: 22,0: : Found indentation with tabs instead of spaces
W0122: 23,0: : Found indentation with tabs instead of spaces
W0122: 24,0: : Found indentation with tabs instead of spaces
W0122: 25,0: : Found indentation with tabs instead of spaces
C0303: 26,0: : Trailing whitespace
W0122: 27,0: : Found indentation with tabs instead of spaces
C0305: 28,0: : Unnecessary parens after 'if' keyword
W0122: 29,0: : Found indentation with tabs instead of spaces
W0122: 30,0: : Found indentation with tabs instead of spaces
W0122: 31,0: : Found indentation with tabs instead of spaces
W0122: 32,0: : Found indentation with tabs instead of spaces
W0122: 33,0: : Found indentation with tabs instead of spaces
W0122: 34,0: : Found indentation with tabs instead of spaces
W0122: 35,0: : Found indentation with tabs instead of spaces
W0122: 36,0: : Found indentation with tabs instead of spaces
W0122: 37,0: : Found indentation with tabs instead of spaces
W0122: 38,0: : Found indentation with tabs instead of spaces
W0122: 39,0: : Found indentation with tabs instead of spaces
C0303: 40,0: : Trailing whitespace
W0122: 41,0: : Found indentation with tabs instead of spaces
W0122: 42,0: : Found indentation with tabs instead of spaces
W0122: 43,0: : Found indentation with tabs instead of spaces
W0122: 44,0: : Found indentation with tabs instead of spaces
W0122: 45,0: : Found indentation with tabs instead of spaces
W0122: 46,0: : Found indentation with tabs instead of spaces
W0122: 47,0: : Found indentation with tabs instead of spaces
W0122: 48,0: : Found indentation with tabs instead of spaces
W0122: 49,0: : Found indentation with tabs instead of spaces
W0122: 51,0: : Found indentation with tabs instead of spaces
W0122: 52,0: : Found indentation with tabs instead of spaces
W0122: 53,0: : Found indentation with tabs instead of spaces
C0326: 53,0: : No space allowed before bracket
print (str(self.value))

W0122: 54,0: : Found indentation with tabs instead of spaces
W0122: 55,0: : Found indentation with tabs instead of spaces
W0122: 56,0: : Found indentation with tabs instead of spaces
W0122: 57,0: : Found indentation with tabs instead of spaces
W0122: 58,0: : Found indentation with tabs instead of spaces
W0122: 60,0: : Found indentation with tabs instead of spaces
W0122: 61,0: : Found indentation with tabs instead of spaces
W0122: 62,0: : Found indentation with tabs instead of spaces
W0122: 63,0: : Found indentation with tabs instead of spaces

OK
```

6. Github repository for which we have done static analysis.
<https://github.com/jakevdp/PythonDataScienceHandbook/blob/master/website/fabfile.py>

Screenshot of Statisc analysis of above file:



```
No config file found, using default configuration
***** Module code6
C0304: 92,0: : Final newline missing
C0111: 1,0: : Missing module docstring
E0401: 1,0: : Unable to import 'fabric.api'
W0401: 1,0: : Wildcard import fabric.api
E0401: 2,0: : Unable to import 'fabric.contrib.project'
E0401: 8,0: : Unable to import 'pelican.server'
E0602: 11,0: : Undefined variable 'env'
E0602: 12,14: : Undefined variable 'env'
C0103: 15,0: : Invalid constant name "production"
C0103: 16,0: : Invalid constant name "dest_path"
E0602: 19,0: : Undefined variable 'env'
E0602: 20,0: : Undefined variable 'env'
E0602: 21,0: : Undefined variable 'env'
E0602: 24,0: : Undefined variable 'env'
E0602: 37,4: build: Undefined variable 'local'
E0602: 41,4: rebuild: Undefined variable 'local'
E0602: 45,4: regenerate: Undefined variable 'local'
E0602: 49,13: serve: Undefined variable 'env'
C0111: 51,4: serve.AddressReuseTCPServer: Missing class docstring
E0602: 66,4: preview: Undefined variable 'local'
E0602: 71,9: cf_upload: Undefined variable 'lcd'
E0602: 72,8: cf_upload: Undefined variable 'local'
E0602: 75,60: cf_upload: Undefined variable 'env'
E0602: 77,1: publish: Undefined variable 'hosts'
E0602: 80,4: publish: Undefined variable 'local'
E0602: 92,4: gh_pages: Undefined variable 'local'
E0602: 92,74: gh_pages: Undefined variable 'env'
C0411: 3,0: : standard import "import os" should be placed before "from fabric.api import *"
C0411: 4,0: : standard import "import shutil" should be placed before "from fabric.api import *"
C0411: 5,0: : standard import "import sys" should be placed before "from fabric.api import *"
C0411: 6,0: : standard import "import SocketServer" should be placed before "from fabric.api import *"

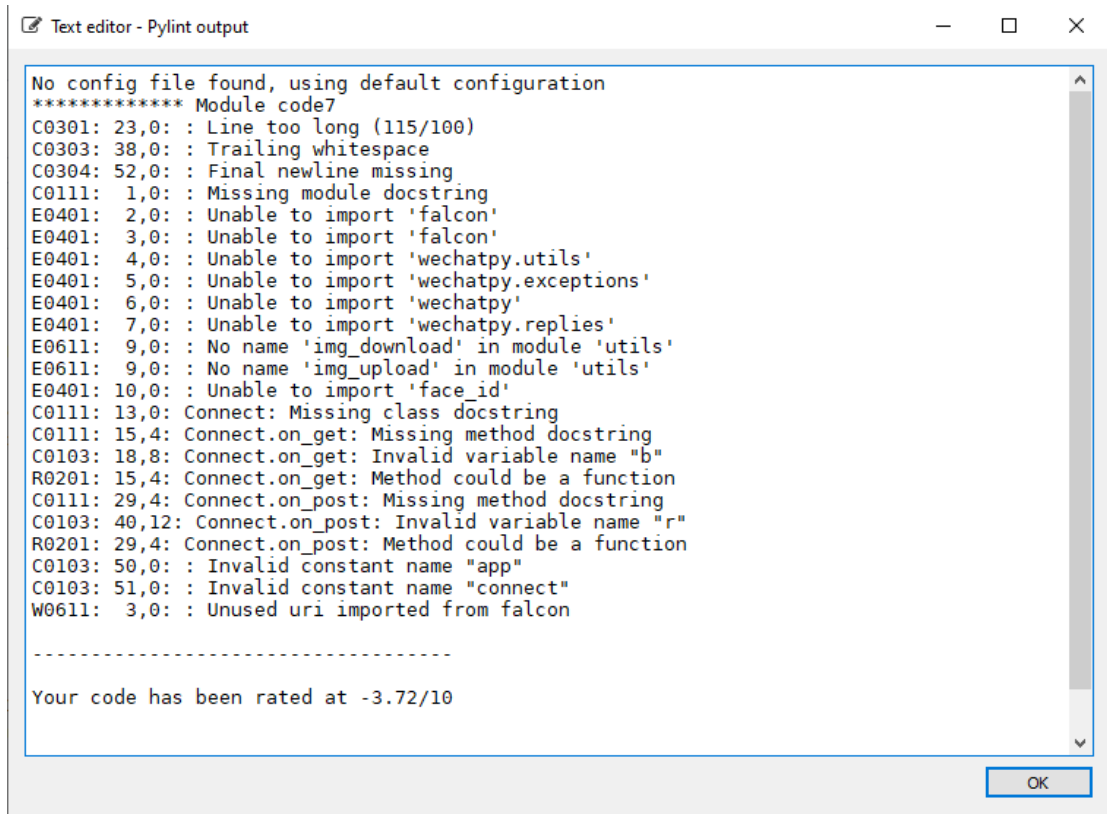
-----

Your code has been rated at -13.96/10
```

7. Github repository for which we have done static analysis.

<https://github.com/injetlee/Python/blob/master/wechat/connect.py>

Screenshot of Statisc analysis of above file:



```
Text editor - Pylint output

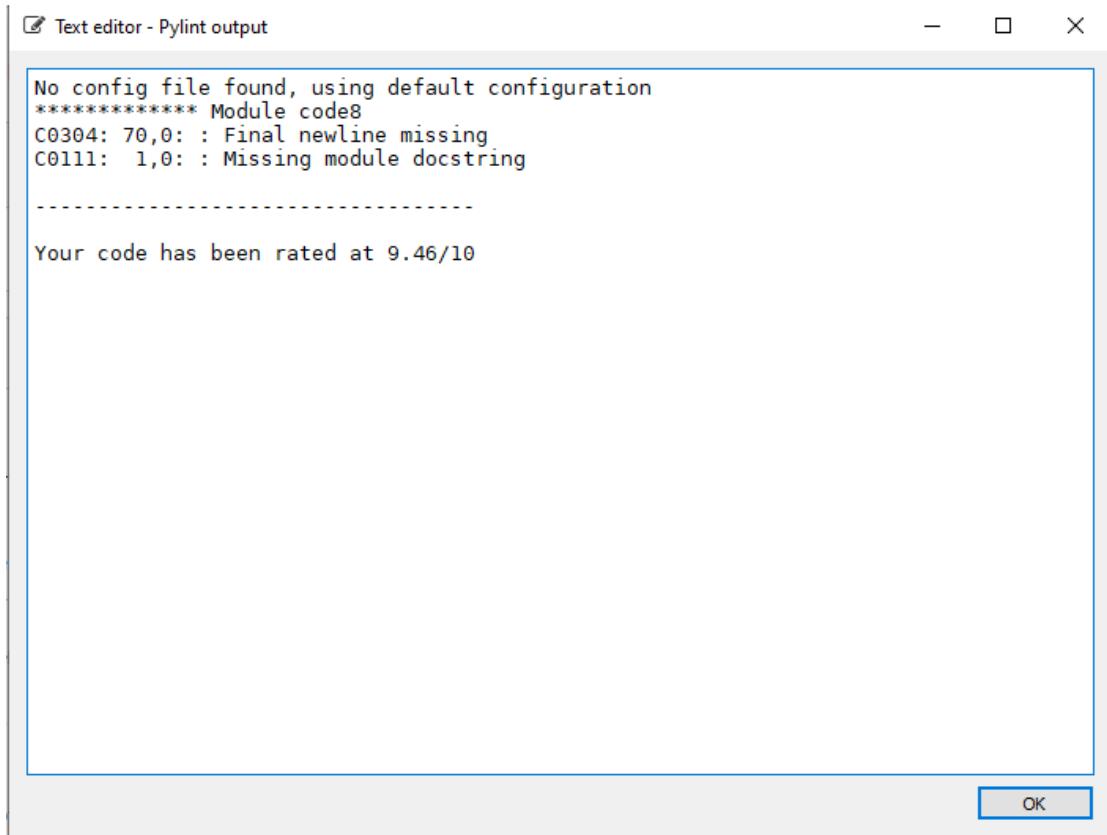
No config file found, using default configuration
***** Module code7
C0301: 23,0: : Line too long (115/100)
C0303: 38,0: : Trailing whitespace
C0304: 52,0: : Final newline missing
C0111: 1,0: : Missing module docstring
E0401: 2,0: : Unable to import 'falcon'
E0401: 3,0: : Unable to import 'falcon'
E0401: 4,0: : Unable to import 'wechatpy.utils'
E0401: 5,0: : Unable to import 'wechatpy.exceptions'
E0401: 6,0: : Unable to import 'wechatpy'
E0401: 7,0: : Unable to import 'wechatpy.replies'
E0611: 9,0: : No name 'img_download' in module 'utils'
E0611: 9,0: : No name 'img_upload' in module 'utils'
E0401: 10,0: : Unable to import 'face_id'
C0111: 13,0: Connect: Missing class docstring
C0111: 15,4: Connect.on_get: Missing method docstring
C0103: 18,8: Connect.on_get: Invalid variable name "b"
R0201: 15,4: Connect.on_get: Method could be a function
C0111: 29,4: Connect.on_post: Missing method docstring
C0103: 40,12: Connect.on_post: Invalid variable name "r"
R0201: 29,4: Connect.on_post: Method could be a function
C0103: 50,0: : Invalid constant name "app"
C0103: 51,0: : Invalid constant name "connect"
W0611: 3,0: : Unused uri imported from falcon

-----
Your code has been rated at -3.72/10

OK
```

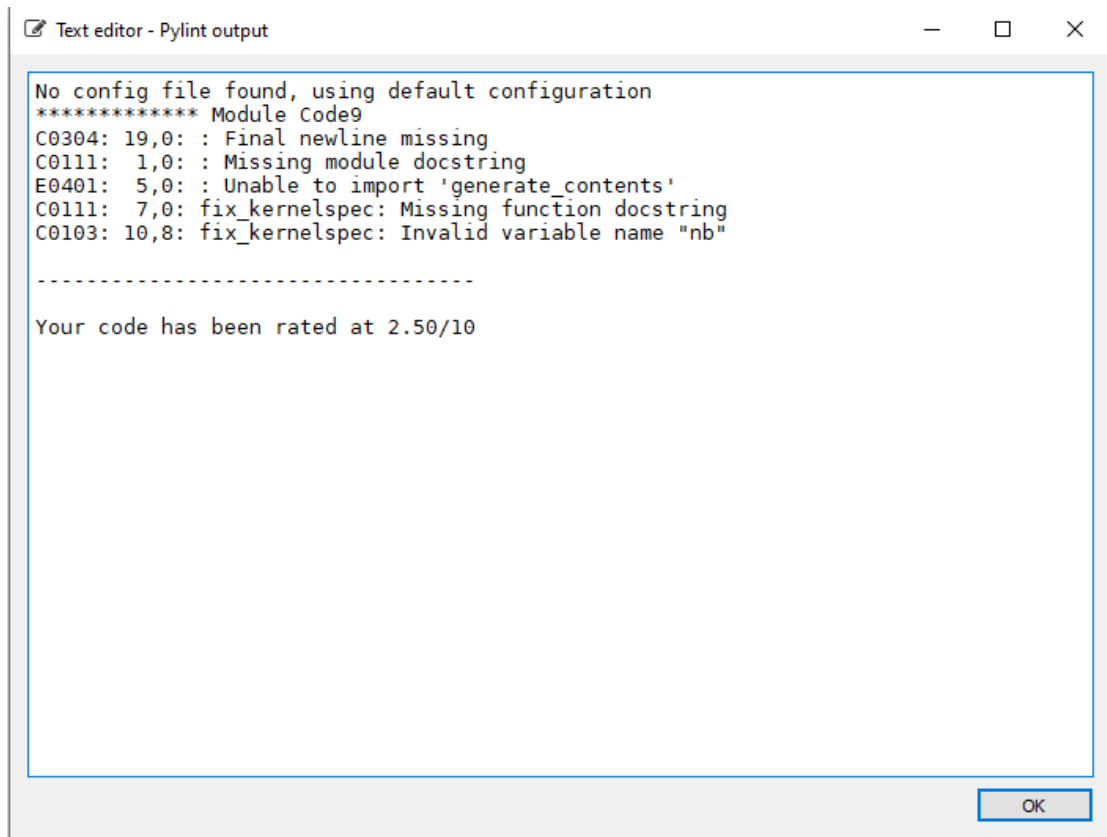
8. Github repository for which we have done static analysis.
<https://github.com/jakevdp/PythonDataScienceHandbook/blob/master/website/pelicanconf.py>

Screenshot of Static analysis of above file:



9. Github repository for which we have done static analysis.
https://github.com/jakevdp/PythonDataScienceHandbook/blob/master/tools/fix_kernelspec.py

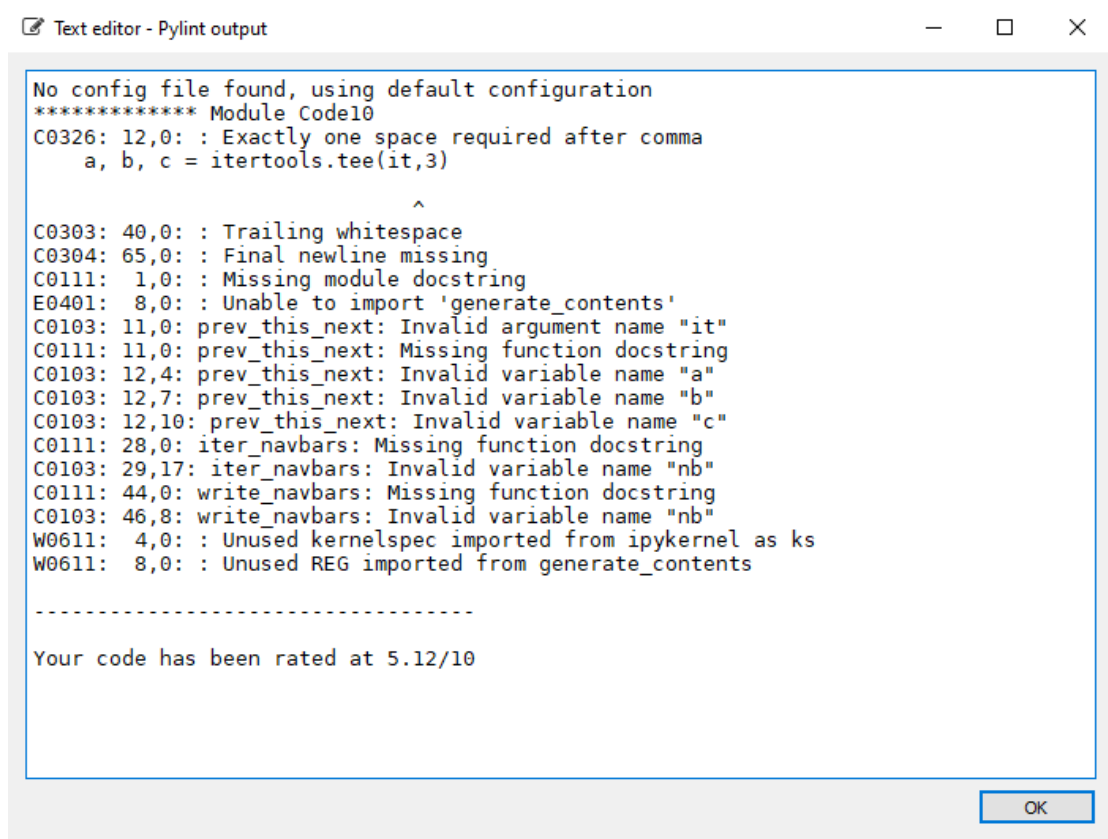
Screenshot of Static analysis of above file:



Github repository for which we have done static analysis.

https://github.com/jakevdp/PythonDataScienceHandbook/blob/master/tools/add_navigation.py

Screenshot of Static analysis of above file:



```
No config file found, using default configuration
***** Module Code10
C0326: 12,0: : Exactly one space required after comma
      a, b, c = itertools.tee(it,3)
      ^
C0303: 40,0: : Trailing whitespace
C0304: 65,0: : Final newline missing
C0111: 1,0: : Missing module docstring
E0401: 8,0: : Unable to import 'generate_contents'
C0103: 11,0: prev_this_next: Invalid argument name "it"
C0111: 11,0: prev_this_next: Missing function docstring
C0103: 12,4: prev_this_next: Invalid variable name "a"
C0103: 12,7: prev_this_next: Invalid variable name "b"
C0103: 12,10: prev_this_next: Invalid variable name "c"
C0111: 28,0: iter_navbars: Missing function docstring
C0103: 29,17: iter_navbars: Invalid variable name "nb"
C0111: 44,0: write_navbars: Missing function docstring
C0103: 46,8: write_navbars: Invalid variable name "nb"
W0611: 4,0: : Unused kernelspec imported from ipykernel as ks
W0611: 8,0: : Unused REG imported from generate_contents

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Your code has been rated at 5.12/10

OK
```

General Analysis and understanding of error form ststis analysis:

There aren't many mistakes in the source you've chosen. Some mistakes are caused by importing inaccessible files, while others are caused by the variable name being used without being specified. Some mistakes are also caused by incorrect grammar.

Some of the above-mentioned mistakes may not be displayed by a compiler, instead displaying a generic error notice that the user may not comprehend.

Along with the mistakes listed above, there are some warnings. Some of the alerts were caused by unused 'else' lines and variables. Few were due to incorrect spacing, and a few were due to useless imported variables.

The programme detects the majority of the cautions listed above.

Additionally, some errors or cautions that are displayed by the static analysis utility as errors or false positives may not actually be errors.

The static analysis led to the bulk of errors and alerts being found.

