

Software Engineering

Lab 5

Name: Sahil Kothari

ID: 202001112

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We chose the tool pylint in python for static analysis of python projects.

- 1) Installed pylint using pip install pylint command in command prompt
- 2) Took sample codes from python files.
- 3) Ran the command `py -m pylint filename.py` in command prompt
- 4) Took screenshots of the errors.

Github link: <https://github.com/Akaza-3/python-files>

1) Music.py file

```
C:\Users\student\Downloads>py -m pylint music.py
***** Module music
music.py:262:0: C0301: Line too long (147/100) (line-too-long)
music.py:278:0: W0311: Bad indentation. Found 3 spaces, expected 4 (bad-indentation)
music.py:281:0: W0311: Bad indentation. Found 3 spaces, expected 4 (bad-indentation)
music.py:282:0: W0311: Bad indentation. Found 3 spaces, expected 4 (bad-indentation)
music.py:315:0: C0303: Trailing whitespace (trailing-whitespace)
music.py:317:0: C0304: Final newline missing (missing-final-newline)
music.py:1:0: C0114: Missing module docstring (missing-module-docstring)
music.py:24:20: W0621: Redefining name 'scale' from outer scope (line 281) (redefined-outer-name)
music.py:29:11: C0123: Use isinstance() rather than type() for a typecheck. (unidiomatic-typecheck)
music.py:32:13: C0123: Use isinstance() rather than type() for a typecheck. (unidiomatic-typecheck)
music.py:24:0: R1710: Either all return statements in a function should return an expression, or none of them should. (inconsistent-return-statements)
music.py:37:10: C0103: Argument name "n" doesn't conform to snake_case naming style (invalid-name)
music.py:37:11: W0621: Redefining name 'scale' from outer scope (line 281) (redefined-outer-name)
music.py:42:14: W0621: Redefining name 'key' from outer scope (line 207) (redefined-outer-name)
music.py:85:22: W0621: Redefining name 'notes' from outer scope (line 8) (redefined-outer-name)
music.py:95:4: W0621: Redefining name 'make_intervals' from outer scope (line 235) (redefined-outer-name)
music.py:97:8: C0103: Variable name "c" doesn't conform to snake_case naming style (invalid-name)
music.py:95:4: W0612: Unused variable 'make_intervals' (unused-variable)
music.py:109:0: C0116: Missing function or method docstring (missing-function-docstring)
music.py:111:4: C0103: Variable name "c" doesn't conform to snake_case naming style (invalid-name)
music.py:123:17: W0621: Redefining name 'formula' from outer scope (line 209) (redefined-outer-name)
music.py:196:9: W0621: Redefining name 'scale' from outer scope (line 281) (redefined-outer-name)
music.py:201:27: C0209: Formatting a regular string which could be a f-string (consider-using-f-string)
music.py:207:0: C0206: Consider iterating with .items() (consider-using-dict-items)
music.py:225:0: C0116: Missing function or method docstring (missing-function-docstring)
music.py:225:9: W0621: Redefining name 'scale' from outer scope (line 281) (redefined-outer-name)
music.py:235:0: C0116: Missing function or method docstring (missing-function-docstring)
music.py:235:19: W0621: Redefining name 'key' from outer scope (line 207) (redefined-outer-name)
music.py:245:4: W0621: Redefining name 'intervals' from outer scope (line 131) (redefined-outer-name)
music.py:262:18: C0209: Formatting a regular string which could be a f-string (consider-using-f-string)
music.py:265:12: W0702: No exception type(s) specified (bare-except)
music.py:274:14: E0602: Undefined variable 'make_intervals_standard' (undefined-variable)
music.py:276:0: C0103: Constant name "formula" doesn't conform to UPPER CASE naming style (invalid-name)
music.py:278:36: E0602: Undefined variable 'make_intervals_standard' (undefined-variable)
music.py:281:33: E0602: Undefined variable 'make_intervals_standard' (undefined-variable)
music.py:282:9: C0209: Formatting a regular string which could be a f-string (consider-using-f-string)
music.py:285:0: C0206: Consider iterating with .items() (consider-using-dict-items)
music.py:289:14: C0209: Formatting a regular string which could be a f-string (consider-using-f-string)
music.py:294:0: C0206: Consider iterating with .items() (consider-using-dict-items)
music.py:296:10: C0209: Formatting a regular string which could be a f-string (consider-using-f-string)
music.py:310:4: C0206: Consider iterating with .items() (consider-using-dict-items)

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Your code has been rated at 5.76/10 (previous run: 0.00/10, +5.76)
```

2) Stream.py file

```
C:\Users\student\Downloads>py -m pylint stream.py
***** Module stream
stream.py:28:0: C0301: Line too long (128/100) (line-too-long)
stream.py:71:0: C0304: Final newline missing (missing-final-newline)
stream.py:1:0: C0114: Missing module docstring (missing-module-docstring)
stream.py:3:0: E0401: Unable to import 'cv2' (import-error)
stream.py:4:0: E0401: Unable to import 'numpy' (import-error)
stream.py:5:0: E0401: Unable to import 'zmq' (import-error)
stream.py:7:0: E0401: Unable to import 'constants' (import-error)
stream.py:8:0: E0401: Unable to import 'utils' (import-error)
stream.py:11:0: C0115: Missing class docstring (missing-class-docstring)
stream.py:54:0: C0116: Missing function or method docstring (missing-function-docstring)

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Your code has been rated at 2.50/10
```

3) Cowin.py file

```
C:\Users\student\Downloads>py -m pylint cowin.py
***** Module cowin
cowin.py:20:0: C0301: Line too long (121/100) (line-too-long)
cowin.py:23:0: C0301: Line too long (140/100) (line-too-long)
cowin.py:27:0: W0311: Bad indentation. Found 14 spaces, expected 16 (bad-indentation)
cowin.py:28:0: W0311: Bad indentation. Found 14 spaces, expected 16 (bad-indentation)
cowin.py:29:0: W0311: Bad indentation. Found 14 spaces, expected 16 (bad-indentation)
cowin.py:30:0: W0311: Bad indentation. Found 16 spaces, expected 20 (bad-indentation)
cowin.py:31:0: W0311: Bad indentation. Found 18 spaces, expected 24 (bad-indentation)
cowin.py:32:0: W0311: Bad indentation. Found 20 spaces, expected 28 (bad-indentation)
cowin.py:33:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:34:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:35:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:36:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:37:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:38:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:39:0: C0301: Line too long (103/100) (line-too-long)
cowin.py:39:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:40:0: C0301: Line too long (103/100) (line-too-long)
cowin.py:40:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:41:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:42:0: W0311: Bad indentation. Found 22 spaces, expected 32 (bad-indentation)
cowin.py:44:0: W0311: Bad indentation. Found 14 spaces, expected 16 (bad-indentation)
cowin.py:46:0: W0311: Bad indentation. Found 6 spaces, expected 8 (bad-indentation)
cowin.py:48:0: W0311: Bad indentation. Found 6 spaces, expected 8 (bad-indentation)
cowin.py:49:0: C0301: Line too long (117/100) (line-too-long)
cowin.py:49:0: W0311: Bad indentation. Found 6 spaces, expected 8 (bad-indentation)
cowin.py:50:0: W0311: Bad indentation. Found 6 spaces, expected 8 (bad-indentation)
cowin.py:56:0: C0304: Final newline missing (missing-final-newline)
cowin.py:56:0: W0311: Bad indentation. Found 6 spaces, expected 8 (bad-indentation)
cowin.py:1:0: C0114: Missing module docstring (missing-module-docstring)
cowin.py:1:0: E0401: Unable to import 'requests' (import-error)
cowin.py:5:0: E0401: Unable to import 'playsound' (import-error)
cowin.py:8:0: C0103: Constant name "age" doesn't conform to UPPER CASE naming style (invalid-name)
cowin.py:10:0: C0103: Constant name "num days" doesn't conform to UPPER CASE naming style (invalid-name)
cowin.py:17:4: C0103: Constant name "cnt" doesn't conform to UPPER CASE naming style (invalid-name)
cowin.py:20:18: C0209: Formatting a regular string which could be a f-string (consider-using-f-string)
cowin.py:28:14: C0103: Constant name "flag" doesn't conform to UPPER CASE naming style (invalid-name)
cowin.py:2:0: C0411: standard import "import time" should be placed before "import requests" (wrong-import-order)
cowin.py:3:0: C0411: standard import "import json" should be placed before "import requests" (wrong-import-order)
cowin.py:4:0: C0411: standard import "from datetime import datetime, timedelta" should be placed before "import requests" (wrong-import-order)
cowin.py:3:0: W0611: Unused import json (unused-import)

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Your code has been rated at 0.00/10
```

4) Algorithm.py

```
C:\Users\student\Downloads>py -m pylint algorithm.py
***** Module algorithm
algorithm.py:15:37: C0303: Trailing whitespace (trailing-whitespace)
algorithm.py:19:0: C0303: Trailing whitespace (trailing-whitespace)
algorithm.py:1:0: C0114: Missing module docstring (missing-module-docstring)
algorithm.py:5:0: C0115: Missing class docstring (missing-class-docstring)
algorithm.py:10:4: C0116: Missing function or method docstring (missing-function-docstring)
algorithm.py:11:8: C0415: Import outside toplevel (visualizer) (import-outside-toplevel)
algorithm.py:11:8: E0401: Unable to import 'visualizer' (import-error)
algorithm.py:14:4: C0116: Missing function or method docstring (missing-function-docstring)
algorithm.py:21:4: C0116: Missing function or method docstring (missing-function-docstring)
algorithm.py:22:24: W1309: Using an f-string that does not have any interpolated variables (f-string-without-interpolation)
algorithm.py:15:8: W0201: Attribute 'start time' defined outside __init__ (attribute-defined-outside-init)
algorithm.py:25:0: C0115: Missing class docstring (missing-class-docstring)
algorithm.py:30:8: C0200: Consider using enumerate instead of iterating with range and len (consider-using-enumerate)
algorithm.py:39:0: C0115: Missing class docstring (missing-class-docstring)
algorithm.py:51:0: C0115: Missing class docstring (missing-class-docstring)
algorithm.py:56:8: C0200: Consider using enumerate instead of iterating with range and len (consider-using-enumerate)
algorithm.py:66:0: C0115: Missing class docstring (missing-class-docstring)
algorithm.py:70:4: W0102: Dangerous default value [] as argument (dangerous-default-value)
algorithm.py:80:4: C0116: Missing function or method docstring (missing-function-docstring)
algorithm.py:97:0: C0115: Missing class docstring (missing-class-docstring)
algorithm.py:101:4: W0102: Dangerous default value [] as argument (dangerous-default-value)
algorithm.py:110:4: C0116: Missing function or method docstring (missing-function-docstring)
algorithm.py:111:8: C0103: Variable name "x" doesn't conform to snake_case naming style (invalid-name)

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Your code has been rated at 7.22/10
```

