

IT314 : Lab 5 - Static Analysis

Name : Vishesh Patel

Student ID : 202001186

Tool Used - pylint

Repository - <https://github.com/marblexu/PythonPlantsVsZombies>

./source/state/screen.py

```
C:\202001186\Lab5_202001186\SourceCode>py -m pylint ./source/state/screen.py
```

```
***** Module source.state.screen
```

```
source\state\screen.py:20:0: C0303: Trailing whitespace (trailing-whitespace)
```

```
source\state\screen.py:44:0: C0303: Trailing whitespace (trailing-whitespace)
```

```
source\state\screen.py:47:0: C0303: Trailing whitespace (trailing-whitespace)
```

```
source\state\screen.py:54:0: C0303: Trailing whitespace (trailing-whitespace)
```

```
source\state\screen.py:57:0: C0303: Trailing whitespace (trailing-whitespace)
```

```
source\state\screen.py:59:0: C0304: Final newline missing (missing-final-newline)
```

```
source\state\screen.py:17:8: E1111: Assigning result of a function call, where the function has no return  
(assignment-from-no-return)
```

```
source\state\screen.py:19:8: E1111: Assigning result of a function call, where the function has no return  
(assignment-from-no-return)
```

```
source\state\screen.py:21:4: C0103: Method name "getImageName" doesn't conform to snake_case  
naming style (invalid-name)
```

```
source\state\screen.py:27:4: C0103: Method name "setupImage" doesn't conform to snake_case naming  
style (invalid-name)
```

```
source\state\screen.py:34:4: W0221: Number of parameters was 4 in 'State.update' and is now 5 in  
overriding 'Screen.update' method (arguments-differ)
```

```
source\state\screen.py:34:44: W0613: Unused argument 'mouse_pos' (unused-argument)
```

```
source\state\screen.py:34:55: W0613: Unused argument 'mouse_click' (unused-argument)
```

```
source\state\screen.py:16:8: W0201: Attribute 'game_info' defined outside __init__  
(attribute-defined-outside-init)
```

```
source\state\screen.py:29:8: W0201: Attribute 'image' defined outside __init__  
(attribute-defined-outside-init)
```

```
source\state\screen.py:30:8: W0201: Attribute 'rect' defined outside __init__ (attribute-defined-outside-init)
```

```
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```

C0303: Trailing whitespace (False Positive)

Actual code lines do not have trailing whitespaces. These are for indentation. Does not break the code. It is a suggestion for better readability of code.

E1111: Assigning result of a function call, where the function has no return (assignment-from-no-return)

Function call returns NULL, yet its value has been assigned to a variable.

C0103 : Method name "getImageName" doesn't conform to snake_case naming style (invalid-name)

Naming convention is not followed for these methods. Should be updated for uniformity.

W0221: Number of parameters was 4 in 'State.update' and is now 5 in overriding 'Screen.update' method (arguments-differ)

Overriding function has a different number of parameters. It is an inconsistency.

W0201: Attribute 'image' defined outside __init__ (attribute-defined-outside-init)

Attributes should not be defined outside __init__ function of class.

./source/main.py

```
C:\202001186\Lab5_202001186\SourceCode>py -m pylint ./source/main.py
```

```
***** Module source.main
```

```
source\main.py:14:0: C0304: Final newline missing (missing-final-newline)
```

```
source\main.py:1:0: C0114: Missing module docstring (missing-module-docstring)
```

```
source\main.py:7:0: C0116: Missing function or method docstring (missing-function-docstring)
```

```
-----
```

Your code has been rated at 6.67/10

C0304: Final newline missing (missing-final-newline)

A newline should be printed at the end of the file for better readability of I/O.

C0114: Missing module docstring

A Python module should have a docstring, explaining what the module does, what it provides, and examples of how to use the classes.

./source/component/map.py

C:\202001186\Lab5_202001186\SourceCode>py -m pylint ./source/component/map.py

***** Module source.component.map

source\component\map.py:19:0: C0303: Trailing whitespace (trailing-whitespace)

source\component\map.py:21:0: C0325: Unnecessary parens after 'return' keyword
(superfluous-parens)

source\component\map.py:22:0: C0303: Trailing whitespace (trailing-whitespace)

source\component\map.py:27:0: C0303: Trailing whitespace (trailing-whitespace)

source\component\map.py:31:0: C0303: Trailing whitespace (trailing-whitespace)

source\component\map.py:14:4: C0103: Method name "isValid" doesn't conform to snake_case
naming style (invalid-name)

source\component\map.py:20:4: C0103: Method name "isMovable" doesn't conform to
snake_case naming style (invalid-name)

source\component\map.py:23:4: C0103: Method name "getMapIndex" doesn't conform to
snake_case naming style (invalid-name)

source\component\map.py:23:26: C0103: Argument name "x" doesn't conform to snake_case
naming style (invalid-name)

source\component\map.py:23:29: C0103: Argument name "y" doesn't conform to snake_case
naming style (invalid-name)

source\component\map.py:28:4: C0116: Missing function or method docstring
(missing-function-docstring)

source\component\map.py:28:4: C0103: Method name "getMapGridPos" doesn't conform to
snake_case naming style (invalid-name)

source\component\map.py:32:4: C0116: Missing function or method docstring
(missing-function-docstring)

source\component\map.py:32:4: C0103: Method name "setMapGridType" doesn't conform to
snake_case naming style (invalid-name)

source\component\map.py:32:43: W0622: Redefining built-in 'type' (redefined-builtin)

source\component\map.py:35:4: C0116: Missing function or method docstring
(missing-function-docstring)

source\component\map.py:35:4: C0103: Method name "getRandomMapIndex" doesn't conform
to snake_case naming style (invalid-name)

source\component\map.py:40:4: C0103: Method name "showPlant" doesn't conform to
snake_case naming style (invalid-name)

source\component\map.py:40:24: C0103: Argument name "x" doesn't conform to snake_case
naming style (invalid-name)

source\component\map.py:40:27: C0103: Argument name "y" doesn't conform to snake_case
naming style (invalid-name)

source\component\map.py:4:0: W0611: Unused pygame imported as pg (unused-import)

source\component\map.py:5:0: W0611: Unused import tool (unused-import)

C0303: Trailing whitespace (trailing-whitespace)

Actual code lines do not have trailing whitespaces. These are for indentation. Does not break the code. It is a suggestion for better readability of code.

C0325: Unnecessary parens after 'return' keyword (superfluous-parens)

Parentheses are not required after the return keyword.

C0103: Method name "setMapGridType" doesn't conform to snake_case naming style (invalid-name)

Naming convention is not consistent with other names.

W0622: Redefining built-in 'type' (redefined-builtin)

'type' is an inbuilt keyword of python. It has been redefined in the code.

W0611: Unused import tool (unused-import)

Import tool has not been used in the code.

./source/tool.py

```
C:\202001186\Lab5_202001186\SourceCode>py -m pylint ./source/tool.py
```

```
***** Module source.tool
```

```
source\tool.py:88:0: W0311: Bad indentation. Found 8 spaces, expected 4 (bad-indentation)
source\tool.py:89:0: W0311: Bad indentation. Found 8 spaces, expected 4 (bad-indentation)
source\tool.py:91:0: W0311: Bad indentation. Found 8 spaces, expected 4 (bad-indentation)
source\tool.py:102:37: C0303: Trailing whitespace (trailing-whitespace)
source\tool.py:103:0: W0301: Unnecessary semicolon (unnecessary-semicolon)
source\tool.py:137:0: C0301: Line too long (104/100) (line-too-long)
source\tool.py:141:0: C0301: Line too long (104/100) (line-too-long)
source\tool.py:21:4: C0116: Missing function or method docstring (missing-function-docstring)
source\tool.py:29:0: C0115: Missing class docstring (missing-class-docstring)
source\tool.py:29:0: R0902: Too many instance attributes (12/7) (too-many-instance-attributes)
source\tool.py:61:8: W0612: Unused variable 'previous' (unused-variable)
source\tool.py:66:4: C0116: Missing function or method docstring (missing-function-docstring)
source\tool.py:68:29: E1101: Module 'pygame' has no 'QUIT' member (no-member)
source\tool.py:70:31: E1101: Module 'pygame' has no 'KEYDOWN' member (no-member)
source\tool.py:72:31: E1101: Module 'pygame' has no 'KEYUP' member (no-member)
source\tool.py:74:31: E1101: Module 'pygame' has no 'MOUSEBUTTONDOWN' member (no-member)
source\tool.py:87:21: C0103: Argument name "x" doesn't conform to snake_case naming style (invalid-name)
source\tool.py:87:24: C0103: Argument name "y" doesn't conform to snake_case naming style (invalid-name)
source\tool.py:87:0: R0913: Too many arguments (7/5) (too-many-arguments)
source\tool.py:123:4: R1702: Too many nested blocks (6/5) (too-many-nested-blocks)
source\tool.py:123:4: R1702: Too many nested blocks (6/5) (too-many-nested-blocks)
source\tool.py:156:0: C0116: Missing function or method docstring (missing-function-docstring)
source\tool.py:156:0: C0103: Function name "loadZombielImageRect" doesn't conform to snake_case naming style (invalid-name)
source\tool.py:158:4: C0103: Variable name "f" doesn't conform to snake_case naming style (invalid-name)
source\tool.py:158:8: W1514: Using open without explicitly specifying an encoding (unspecified-encoding)
source\tool.py:158:8: R1732: Consider using 'with' for resource-allocating operations (consider-using-with)
```

W0311: Bad indentation. Found 8 spaces, expected 4 (bad-indentation)

C0301: Line too long (104/100) (line-too-long)

Max length of line (100) is exceeded. Can affect readability of code.

E1101: Module 'pygame' has no 'QUIT' member (no-member)

The module has no member with the specified name.

R1702: Too many nested blocks (6/5) (too-many-nested-blocks)

Pylint suggests at max 5 nested blocks. The code has exceeded this limit.

W1514: Using open without explicitly specifying an encoding

open() function should also specify encoding of the file opened. Default assumed encoding method may cause issues in reading the file.

./source/constants.py

```
C:\202001186\Lab5_202001186\SourceCode>py -m pylint ./source/constants.py
```

```
***** Module source.constants
```

```
source\constants.py:180:0: C0304: Final newline missing (missing-final-newline)
```

```
source\constants.py:1:0: C0114: Missing module docstring  
(missing-module-docstring)
```

```
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```

C0304: Final newline missing

Newline is missing at the end of the file. Recommended for better readability.

C0114: Missing module docstring

A Python module should have a docstring, explaining what the module does, what it provides, and examples of how to use the classes.