

Software Engineering

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Lab: 05

Github tool and selected repository

Here, i am using pylint tool for python

<https://github.com/rishabh1005/Algorithmic-Toolbox>

```
Command Prompt
Microsoft Windows [Version 10.0.19044.1826]
(c) Microsoft Corporation. All rights reserved.

C:\Users\student>pip install mypy
Installing collected packages: mypy
  Attempting to uninstall mypy 1.0.0:
  Successfully uninstalled mypy 1.0.0
  Created temporary directory: C:\Users\student\AppData\Local\Temp\pip-build-env-1000000
  Requirement already satisfied: mypy in c:\users\student\appdata\roaming\python\python310\site-packages (1.1.1)
  Requirement already satisfied: mypy-extensions>=1.0.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from mypy) (1.0.0)
  Requirement already satisfied: typing-extensions>=3.10 in c:\users\student\appdata\roaming\python\python310\site-packages (from mypy) (4.5.0)
  Requirement already satisfied: tomli>=1.1.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from mypy) (2.0.1)
  WARNING: You are using pip version 22.0.4; however, version 23.0.1 is available.
  You should consider upgrading via the 'C:\Program Files\Python310\python.exe -m pip install --upgrade pip' command.

C:\Users\student>git clone https://github.com/rishabh1005/Algorithmic-Toolbox
Cloning into 'Algorithmic-Toolbox'...
remote: Enumerating objects: 205, done.
remote: Counting objects: 100% (205/205), done.
remote: Compressing objects: 100% (147/147), done.
Receiving objects: 77% (158/205), 2.45 MiB | 4.88 MiB/sk-reused 0
Receiving objects: 100% (205/205), 10.09 MiB | 13.88 MiB/s, done.
Resolving deltas: 100% (68/68), done.

C:\Users\student>pip install pylint
Installing collected packages: pylint
  Attempting to uninstall pylint 2.17.0:
  Successfully uninstalled pylint 2.17.0
  Created temporary directory: C:\Users\student\AppData\Local\Temp\pip-build-env-1000000
  Requirement already satisfied: pylint in c:\users\student\appdata\roaming\python\python310\site-packages (2.17.0)
  Requirement already satisfied: isort6,<=4.2.5 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (3.12.0)
  Requirement already satisfied: astroid<2.17.0-dev0,>=2.15.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (2.15.0)
  Requirement already satisfied: mccabe<0.8,>=0.6 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (0.7.0)
  Requirement already satisfied: platformdirs>=2.2.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (3.1.1)
  Requirement already satisfied: tomli>=1.1.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (2.0.1)
  Requirement already satisfied: tomlikt>=0.10.1 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (0.11.0)
  Requirement already satisfied: colorama>=0.4.5 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (0.4.6)
  Requirement already satisfied: dill>=0.2 in c:\users\student\appdata\roaming\python\python310\site-packages (from pylint) (0.3.6)
  Requirement already satisfied: wrapt>2,>=1.11 in c:\users\student\appdata\roaming\python\python310\site-packages (from astroid<2.17.0-dev0,>=2.15.0-py310) (1.15.0)
  Requirement already satisfied: typing-extensions>=4.0.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from astroid<2.17.0-dev0,>=2.15.0-py310) (4.5.0)
  Requirement already satisfied: lazy-object-proxy>=1.4.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from astroid<2.17.0-dev0,>=2.15.0-py310) (1.9.0)
  WARNING: You are using pip version 22.0.4; however, version 23.0.1 is available.
  You should consider upgrading via the 'C:\Program Files\Python310\python.exe -m pip install --upgrade pip' command.

C:\Users\student>pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
pylint: not recognized as an internal or external command,
operable program or batch file.

C:\Users\student>python-m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
python-m: not recognized as an internal or external command,
operable program or batch file.

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
py -m: not recognized as an internal or external command,
operable program or batch file.

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
***** Module placing_parentheses
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:10: C0103: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:13: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:21:16: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:21:16: W0621: Redefining name "op" from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:31:4: R1705: Unnecessary "elif" after "return", remove the leading "el" from "elif" (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:0: C0103: Function name "MinAndMax" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:14: C0103: Argument name "M" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:17: C0103: Argument name "n" doesn't conform to snake_case naming style (invalid-name)
```

Cloing and installing require tools

Performing static Analysis and error understanding

(1)

https://github.com/rishabh1005/Algorithmic-Toolbox/blob/master/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py

Tool Output:

```
Command Prompt
pylint is not recognized as an internal or external command,
operable program or batch file.

C:\Users\student>python-m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
'python-m' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
py-m is not recognized as an internal or external command,
operable program or batch file.

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py
***** Module placing_parentheses
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:10: C0103: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:13: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:16: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:16: W0621: Redefining name 'op' from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:3:4: R1705: Unnecessary "elif" after "return", remove the leading "el" from "elif" (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:0: C0103: Function name "MinAndMax" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:14: C0103: Argument name "M" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:17: C0103: Argument name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:26: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:20: W0621: Redefining name 'i' from outer scope (line 44) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:26: W0621: Redefining name 'op' from outer scope (line 45) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:16:8: C0103: Variable name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:17:8: C0103: Variable name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:18:8: C0103: Variable name "c" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:19:8: C0103: Variable name "d" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:22: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:22: W0621: Redefining name 'num' from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:27: W0621: Redefining name 'op' from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:30:8: W0621: Redefining name 'i' from outer scope (line 44) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:26:4: C0103: Variable name "n" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:27:4: C0103: Variable name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:28:4: C0103: Variable name "M" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:34:8: C0103: Variable name "s" doesn't conform to snake_case naming style (invalid-name)

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Your code has been rated at 3.08/10

C:\Users\student>
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(2)

https://github.com/rishabh1005/Algorithmic-Toolbox/blob/master/week6_dynamic_programming2/1_maximum_amount_of_gold/knapsack.py

Tool Output:

```
Command Prompt
C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py
***** Module placing_parentheses
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:10: C0103: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:13: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:16: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:2:16: W0621: Redefining name 'op' from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:3:4: R1705: Unnecessary "elif" after "return", remove the leading "elif" from "elif" (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:8: C0103: Function name "MinAndMax" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:14: C0103: Argument name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:17: C0103: Argument name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:26: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:12:26: W0621: Redefining name 'op' from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:16:8: C0103: Variable name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:17:8: C0103: Variable name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:18:8: C0103: Variable name "c" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:19:8: C0103: Variable name "d" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:22: C0103: Argument name "op" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:24:22: W0621: Redefining name 'op' from outer scope (line 43) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:30:8: W0621: Redefining name 'i' from outer scope (line 44) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:26:4: C0103: Variable name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:27:4: C0103: Variable name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:28:4: C0103: Variable name "m" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_value_of_an_arithmetic_expression/placing_parentheses.py:34:8: C0103: Variable name "s" doesn't conform to snake_case naming style (invalid-name)

Your code has been rated at 3.06/10

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py
***** Module knapsack
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:18:0: C0103: Trailing whitespace (trailing-whitespace)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:18: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:20:4: W0621: Redefining built-in 'input' (redefined-builtin)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:4:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:4:19: C0103: Argument name "w" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:4:22: C0103: Argument name "w" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:4:19: W0621: Redefining name 'w' from outer scope (line 21) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:4:22: W0621: Redefining name 'w' from outer scope (line 21) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:11:12: C0103: Variable name "p" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/maximum_amount_of_gold/knapsack.py:12:12: C0103: Variable name "c" doesn't conform to snake_case naming style (invalid-name)

Your code has been rated at 3.33/10

C:\Users\student>
```

(3)

https://github.com/rishabh1005/Algorithmic-Toolbox/blob/master/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py

Tool Output:

```
Command Prompt
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:28:4: C0103: Variable name "n" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/3_maximum_value_of_an_arithmetic_expression/placing_parentheses.py:34:8: C0103: Variable name "s" doesn't conform to snake_case naming style (invalid-name)
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Your code has been rated at 3.00/10

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py
***** Module knapsack
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:18:0: C0303: Trailing whitespace (trailing-whitespace)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:19:0: C0144: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:20:4: W0622: Redefining built-in 'input' (redefined-builtin)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:4:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:4:19: C0103: Argument name "w" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:4:22: C0103: Argument name "u" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:4:19: W0621: Redefining name 'w' from outer scope (line 21) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:4:22: W0621: Redefining name 'u' from outer scope (line 21) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:11:12: C0103: Variable name "p" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/1_maximum_amount_of_gold_knapsack.py:12:12: C0103: Variable name "c" doesn't conform to snake_case naming style (invalid-name)
-----
Your code has been rated at 3.33/10

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py
***** Module partition
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:28:0: C0305: Trailing newlines (trailing-newlines)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:19:0: C0144: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:25:4: W0622: Redefining built-in 'input' (redefined-builtin)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:5:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:5:15: C0103: Argument name "A" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:5:15: W0621: Redefining name 'A' from outer scope (line 26) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:6:4: C0103: Variable name "w" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:7:4: E1705: Unnecessary "else" after "return", remove the "else" and de-indent the code inside it (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:17:44: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:18:39: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:20:18: E1705: Unnecessary "else" after "return", remove the "else" and de-indent the code inside it (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:20:20: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox/week6_dynamic_programming2/2_partitioning_souvenirs/partition3.py:3:0: W0611: Unused import itertools (unused-import)
-----
Your code has been rated at 4.58/10

C:\Users\student>
```

(4)

https://github.com/rishabh1005/Algorithmic-Toolbox/blob/master/week5_dynamic_programming1/4_longest_common_subsequence_of_two_sequences/lcs2.py

Tool Output:

```
Command Prompt
C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py
***** Module partition3
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:28:0: C0305: Trailing newlines (trailing-newlines)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:25:4: W0622: Redefining built-in 'input' (redefined-builtin)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:5:8: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:5:15: C0103: Argument name "A" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:5:15: W0621: Redefining name 'A' from outer scope (line 26) (redefined-outer-name)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:6:4: C0103: Variable name "B" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:7:4: R1705: Unnecessary "else" after "return", remove the "else" and de-indent the code inside it (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:17:44: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:18:39: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:28:8: R1705: Unnecessary "else" after "return", remove the "else" and de-indent the code inside it (no-else-return)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:28:20: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox/week6_dynamic_programming/2_partitioning_souvenirs/partition3.py:3:0: W0611: Unused import itertools (unused-import)

-----
Your code has been rated at 4.58/10

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py
***** Module lcs2
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:20:4: W0622: Redefining built-in 'input' (redefined-builtin)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:5:8: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:5:8: C0103: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:5:12: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:5:9: W0621: Redefining name 'a' from outer scope (line 25) (redefined-outer-name)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:5:12: W0621: Redefining name 'b' from outer scope (line 30) (redefined-outer-name)
Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py:7:4: C0103: Variable name "d" doesn't conform to snake_case naming style (invalid-name)

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Your code has been rated at 6.36/10

C:\Users\student>
```

(5)

https://github.com/rishabh1005/Algorithmic-Toolbox/blob/master/week5_dynamic_programming1/3_edit_distance/edit_distance.py

Tool Output:

```
Command Prompt
Algorithmic-Toolbox\week6_dynamic_programming\2_partitioning_souvenirs\partition3.py:20:8: R1705: Unnecessary "else" after "return", remove the "else" and de-indent the code inside it (no-else-return)
Algorithmic-Toolbox\week6_dynamic_programming\2_partitioning_souvenirs\partition3.py:20:20: C0321: More than one statement on a single line (multiple-statements)
Algorithmic-Toolbox\week6_dynamic_programming\2_partitioning_souvenirs\partition3.py:3:0: W0611: Unused import itertools (unused-import)

-----
Your code has been rated at 4.58/10

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week5_dynamic_programming/4_longest_common_subsequence_of_two_sequences/lcs2.py
***** Module lcs2
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:20:4: W0622: Redefining built-in 'input' (redefined-builtin)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:5:8: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:5:9: C0109: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:5:12: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:5:9: W0621: Redefining name 'a' from outer scope (line 25) (redefined-outer-name)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:5:12: W0621: Redefining name 'b' from outer scope (line 30) (redefined-outer-name)
Algorithmic-Toolbox\week5_dynamic_programming\4_longest_common_subsequence_of_two_sequences\lcs2.py:7:4: C0103: Variable name "d" doesn't conform to snake_case naming style (invalid-name)

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Your code has been rated at 6.36/10

C:\Users\student>py -m pylint ./Algorithmic-Toolbox/week5_dynamic_programming/3_edit_distance/edit_distance.py
***** Module edit_distance
Algorithmic-Toolbox\week5_dynamic_programming\3_edit_distance\edit_distance.py:1:0: C0114: Missing module docstring (missing-module-docstring)
Algorithmic-Toolbox\week5_dynamic_programming\3_edit_distance\edit_distance.py:2:0: C0116: Missing function or method docstring (missing-function-docstring)
Algorithmic-Toolbox\week5_dynamic_programming\3_edit_distance\edit_distance.py:2:18: C0109: Argument name "s" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox\week5_dynamic_programming\3_edit_distance\edit_distance.py:2:21: C0103: Argument name "t" doesn't conform to snake_case naming style (invalid-name)
Algorithmic-Toolbox\week5_dynamic_programming\3_edit_distance\edit_distance.py:4:4: C0103: Variable name "d" doesn't conform to snake_case naming style (invalid-name)

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Your code has been rated at 6.88/10

C:\Users\student>
```

Understanding Errors:

(1) C0303: Trailing whitespace (trailing-whitespace): Used when there is whitespace between the end of a line and the newline.

(2) C0114/C0116: Missing module docstring/function docstring: This indicates that neither the modules nor the functions have a docstring defined. The docstring functions as a kind of comment or text explanation that the compiler ignores but which aids in explaining the function's or module's intended use to others. Writing docstrings is a wise move.

(3) W0622: Redefining built-in 'input' (redefined-builtin): Used when a built-in is overridden by a variable or method.

(4) C0103: The variable doesn't match the snake_case naming style. The defined variable is not named using the snake_case convention, as indicated by this error.

(5) W0621: Redefining name from outerscope: This mistake indicates that a global variable with the same name as a local variable. By doing this, the global version of the variable is hidden and the local scope is changed to use the local version of the variable.

(6) C0305: Trailing newlines (trailing-newlines): This error tells that there are trailing blank lines in a file.

(7) R1705: Unnecessary "else" after "return", remove the "else" and de-indent the code inside it (no-else-return): This occurs when an else line is added following a "return" statement that is never actually executed.

(8) C0321: More than one statement on a single line: This error tells that there is an on statement are found on the same line.