Allen Taylor
SDEV 300 6382 LAB 3
1/31/2022

Main Menu

Test Case 1:
Input validation
Requirements:
Must contain input validation.
Input:
Error Check, -100, 6, 5
Expected Output:
*** Invalid Selection ***
Actual Output:
*** Invalid Selection ***

```
o----------------o
| Lab 3 Main Menu |
o----------------o
1 -- Display all U.S. States in Alphabetical order along with the Capital, State Population, and Flower.
2 -- Search for a specific state and display the appropriate Capital name, State Population, and an image of the associated State Flower
3 -- Provide a Bar graph of the top 5 populated States showing their overall population.
4 -- Update the overall state population for a specific state.
5 -- Exit the program.
Enter a selection: Error Check
*** Invalid selection ***
Enter a selection: -100
*** Invalid selection ***
o----------------o
| Lab 3 Main Menu |
o----------------o
1 -- Display all U.S. States in Alphabetical order along with the Capital, State Population, and Flower.
2 -- Search for a specific state and display the appropriate Capital name, State Population, and an image of the associated State Flower
3 -- Provide a Bar graph of the top 5 populated States showing their overall population.
4 -- Update the overall state population for a specific state.
5 -- Exit the program.
Enter a selection: 6
*** Invalid selection ***
o----------------o
| Lab 3 Main Menu |
o----------------o
1 -- Display all U.S. States in Alphabetical order along with the Capital, State Population, and Flower.
2 -- Search for a specific state and display the appropriate Capital name, State Population, and an image of the associated State Flower
3 -- Provide a Bar graph of the top 5 populated States showing their overall population.
4 -- Update the overall state population for a specific state.
5 -- Exit the program.
Enter a selection: 5
*** Exiting Program. Thanks! ***
```

Display all U.S. States in Alphabetical order along with the Capital, State Population, and Flower

Test Case 1:

Display all U.S. States in Alphabetical order along with the Capital, State Population, and Flower.

Requirements:

Display all state data in alphabetical order.

Input:

1, 6

Expected Output:

State data is displayed in alphabetical order.

Actual Output:

State data is displayed in alphabetical order.

```
o----------------o
| Lab 3 Main Menu |
o----------------o
1 -- Display all U.S. States in Alphabetical order along with the Capital, State Population, and Flower.
2 -- Search for a specific state and display the appropriate Capital name, State Population, and an image of the associated State Flower
3 -- Provide a Bar graph of the top 5 populated States showing their overall population.
4 -- Update the overall state population for a specific state.
5 -- Exit the program.
Enter a selection: 1
--------------------
State: Alabama
Capital: Montgomery
Population: 4918689
State Flower: Camellia
--------------------
State: Alaska
Capital: Juneau
Population: 727951
State Flower: Forget Me Not
--------------------
State: Arizona
Capital: Phoenix
Population: 7399410
State Flower: Saguaro Cactus Blossom
--------------------
State: Arkansas
Capital: Little Rock
Population: 3025875
State Flower: Apple Blossom
--------------------
State: California
Capital: Sacramento
Population: 39562858
State Flower: California Poppy
--------------------
State: Colorado
Capital: Denver
Population: 5826185
```

Search for a specific state and display the appropriate Capital name, State Population, and an image of the associated State Flower.

Test Case 1:

Search for a specific state and display the appropriate Capital name, State Population, and an image of the associated State Flower.

Requirements:

Displayed specified state data and display an image of its flower.

Input:

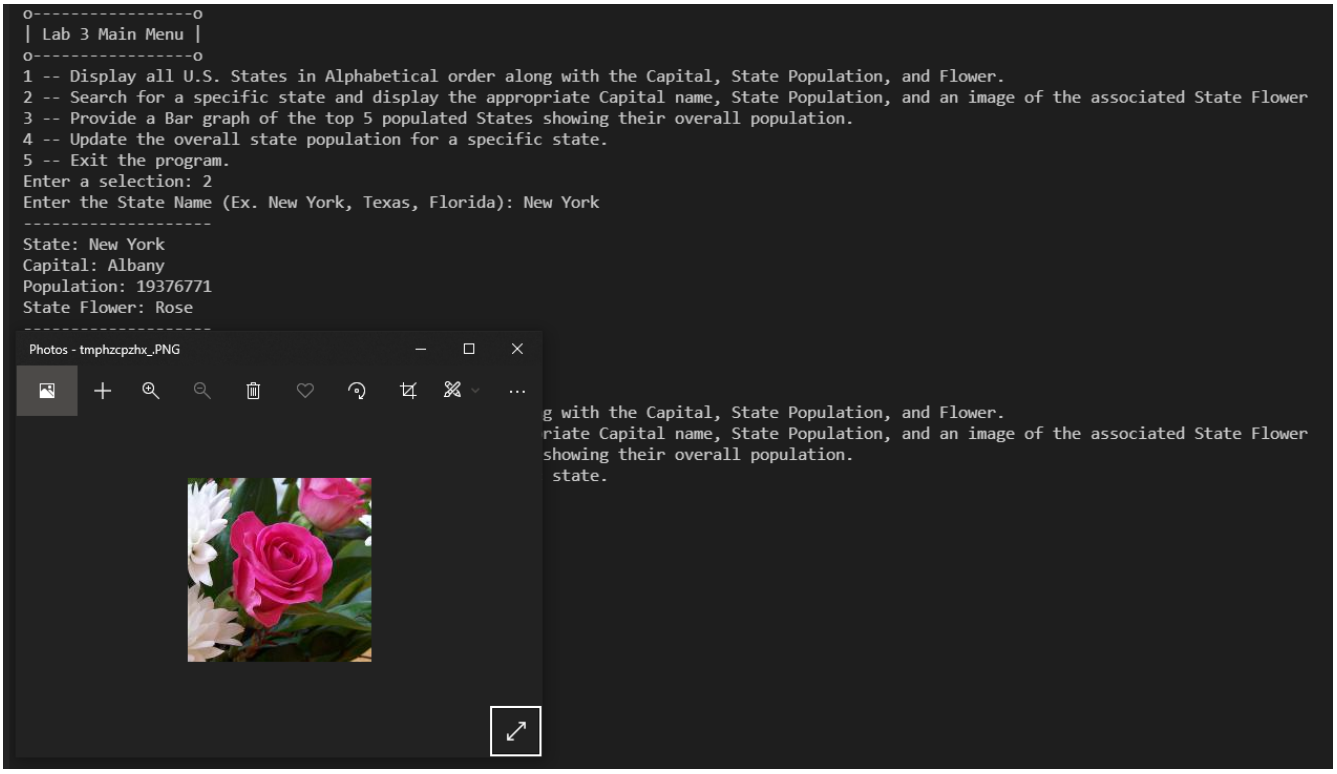
2, New York

Expected Output:

State data and image are displayed.

Actual Output:

State data and image are displayed.



Test Case 2:

Input validation and normalization.

Requirements:

Must contain input validation and normalization.

Input:

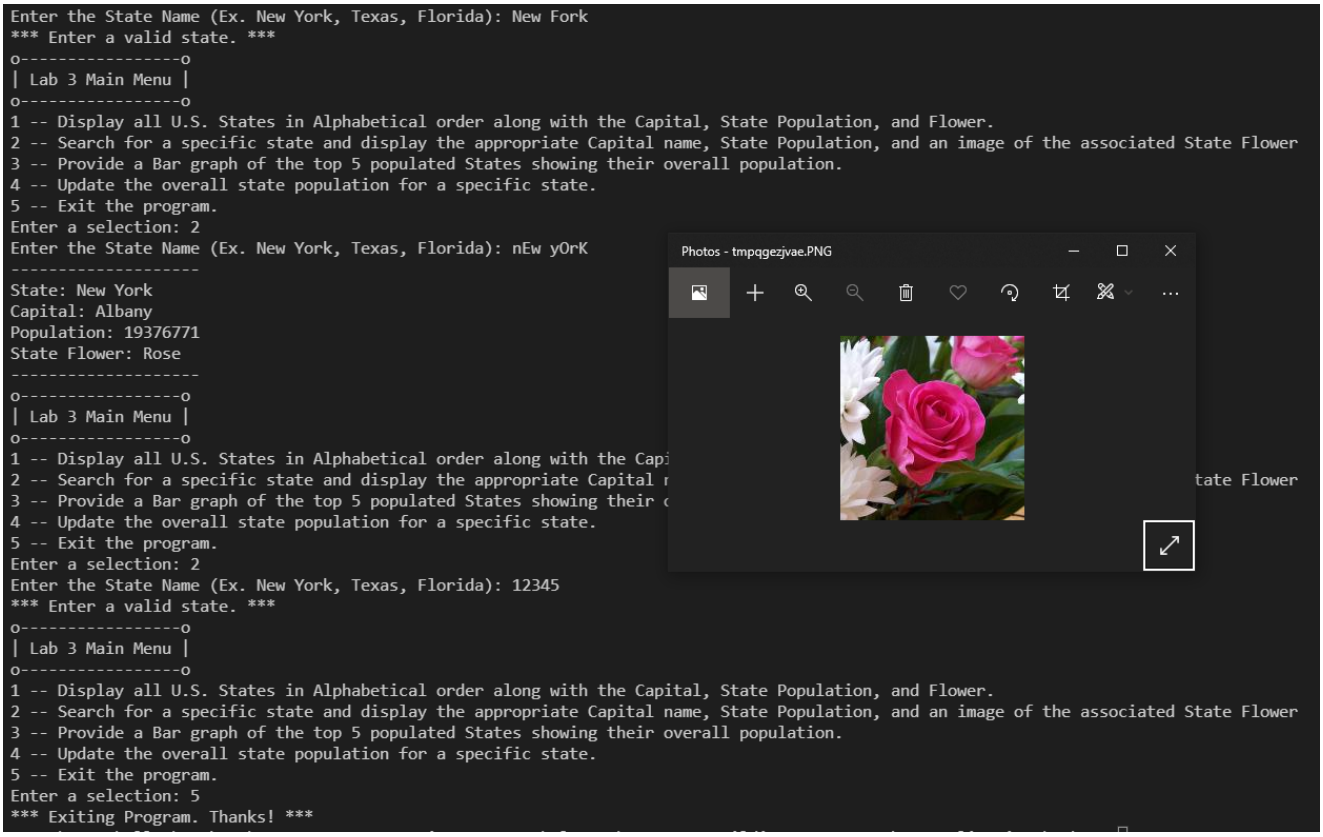
New Fork, nEw yOrK, 12345, 5

Expected Output:

All invalid inputs are caught and handled. “nEw yOrK” is a valid input.

Actual Output:

All invalid inputs are caught and handled. “nEw yOrK” is a valid input.



Provide a Bar graph of the top 5 populated States showing their overall population.

Test Case 1:

Provide a bar graph of the top 5 populated States showing their overall population.

Requirements:

Display a bar graph with top 5 populations.

Input:

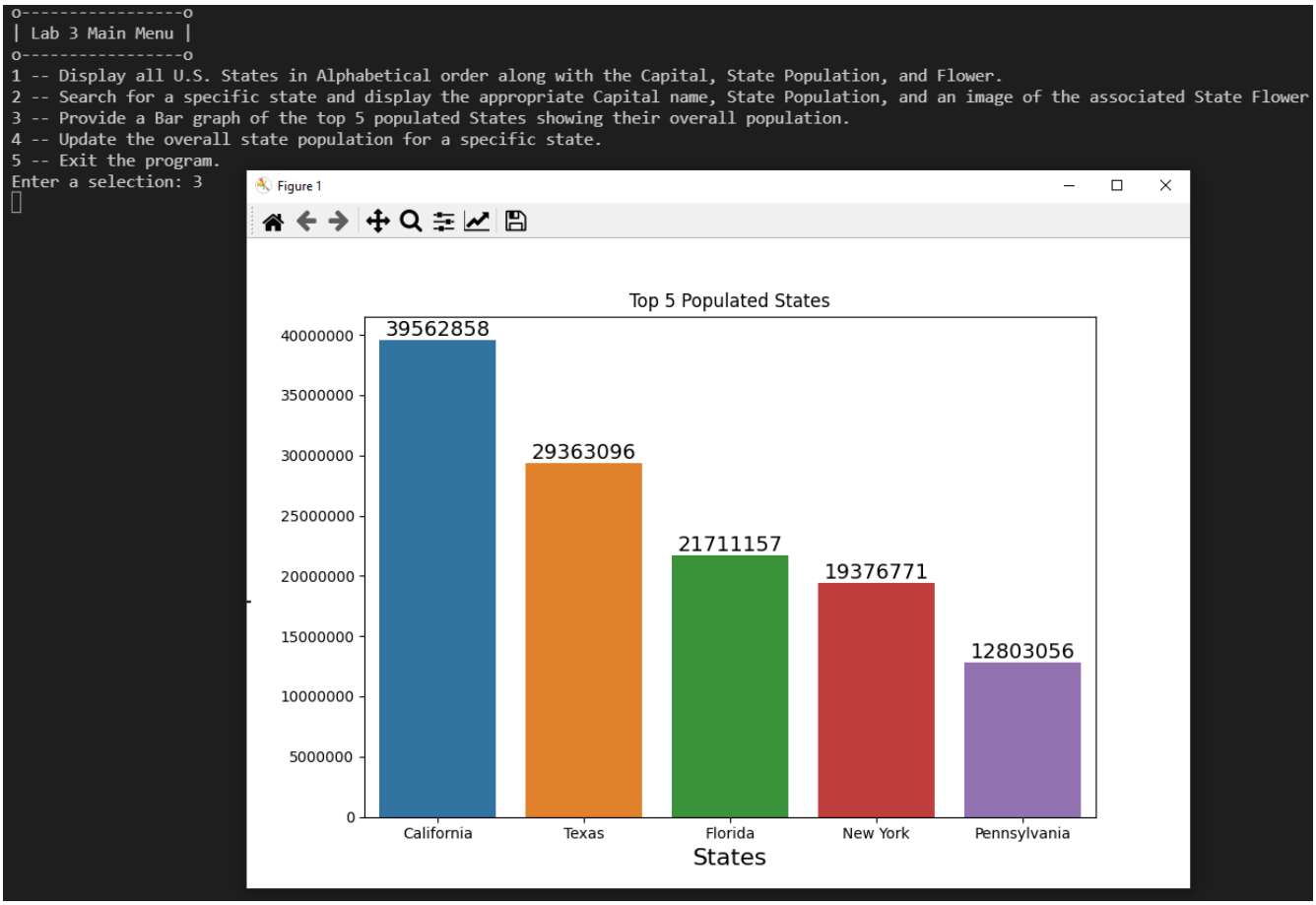
3

Expected Output:

Bar graph with top 5 populated states.

Actual Output:

Bar graph with top 5 populated states.



Update the overall state population for a specific state.

Test Case 1:

Update population for specific state.

Requirements:

Update population, change should reflect on bar chart.

Input:

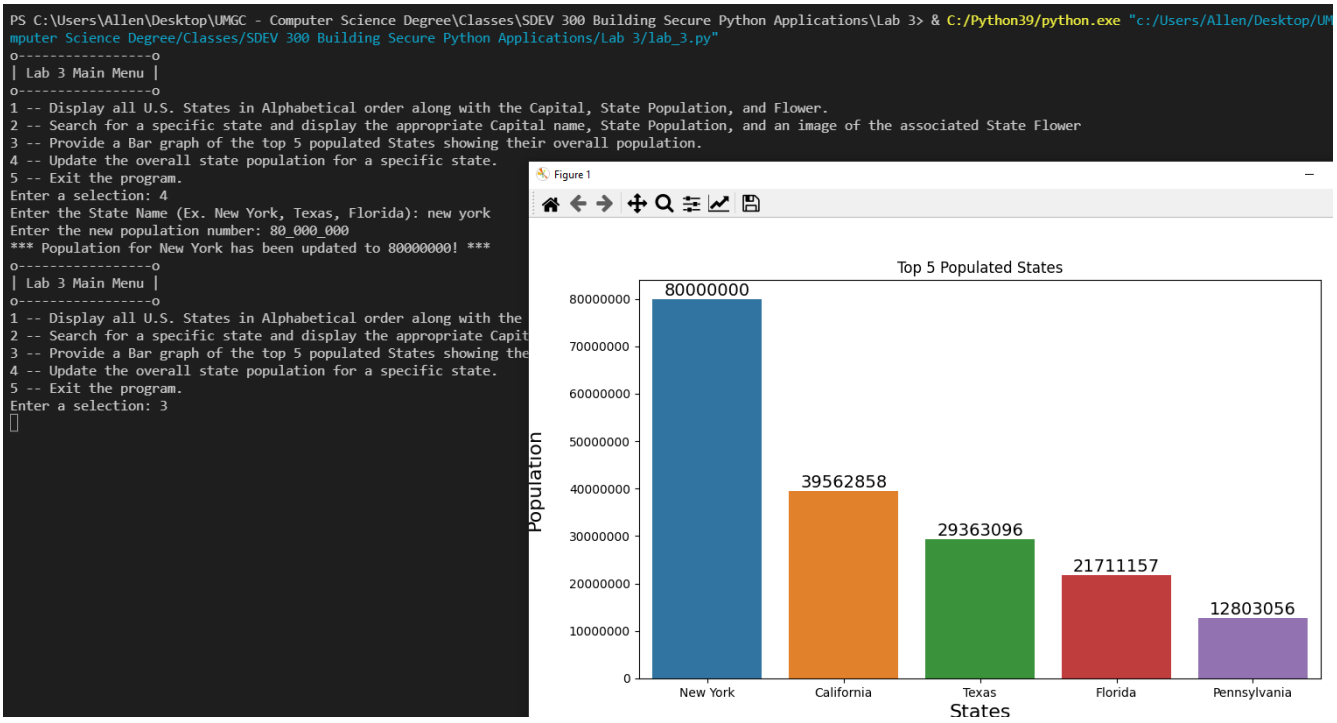
4, new york, 80_000_000

Expected Output:

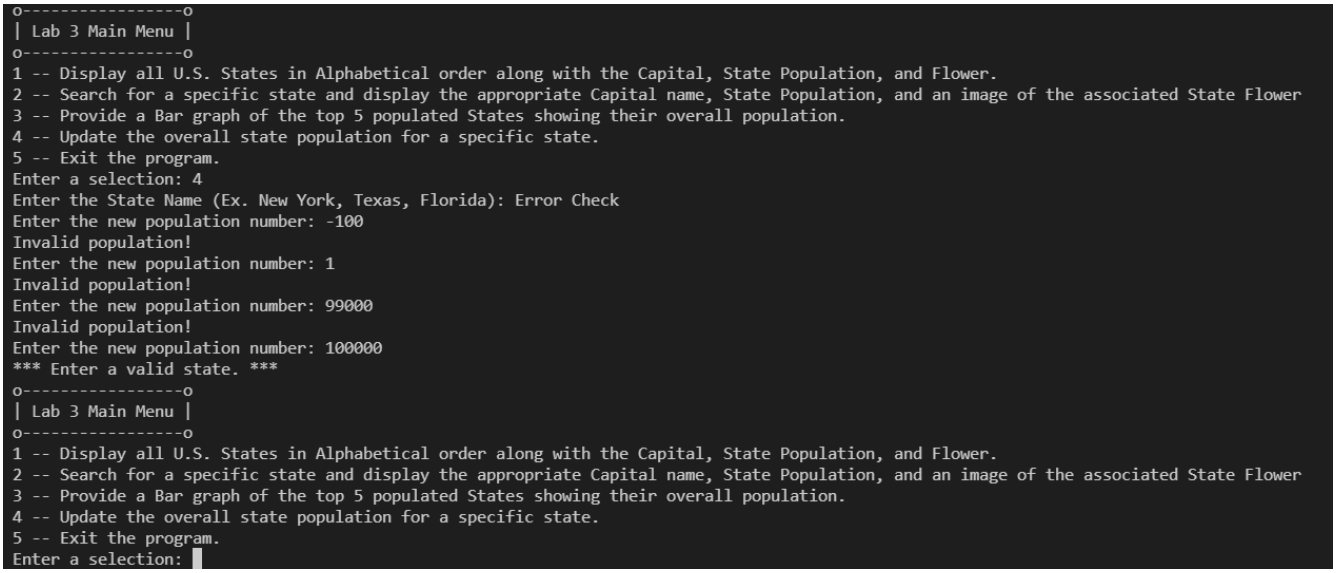
Population for New York is changed to 80,000,000 and change is shown on bar chart.

Actual Output:

Population for New York is changed to 80,000,000 and change is shown on bar chart.



Test Case 2:
Input validation
Requirements:
Enter invalid population
Input:
4, Error Check, -100, 1, 99000, 100000
Expected Output:
All invalid inputs are caught and handled.
Actual Output:
All invalid inputs are caught and handled.



Pylint Results

9.76/10

Comments:

-Lines are too long. This is an acceptable error.

-I have too many branches in my program, but I think this is an acceptable error due to the nature of the program. User interfaces should have many choices (branches).

********** Module lab_3
lab_3.py:36:0: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:52:0: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:72:9: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:74:0: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:84:14: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:125:9: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:127:0: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:130:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:131:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:148:20: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:180:22: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:22:14: W0621: Redefining name 'state_data' from outer scope (line 17) (redefined-outer-name)
lab_3.py:37:23: W0621: Redefining name 'state_data' from outer scope (line 17) (redefined-outer-name)
lab_3.py:53:22: W0621: Redefining name 'state_data' from outer scope (line 17) (redefined-outer-name)
lab_3.py:70:8: W0702: No exception type(s) specified (bare-except)
lab_3.py:86:14: W0621: Redefining name 'state_data' from outer scope (line 17) (redefined-outer-name)
lab_3.py:103:4: C0103: Variable name "df" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:113:15: W0621: Redefining name 'state_data' from outer scope (line 17) (redefined-outer-name)
lab_3.py:145:0: R0912: Too many branches (15/12) (too-many-branches)
lab_3.py:18:0: C0411: third party import "import matplotlib.pyplot as plt" should be placed before "from state_data import state_data" (wrong-import-order)
lab_3.py:19:0: C0411: third party import "import seaborn as sns" should be placed before "from state_data import state_data" (wrong-import-order)
lab_3.py:20:0: C0411: third party import "import pandas as pd" should be placed before "from state_data import state_data" (wrong-import-order)

Your code has been rated at 7.96/10

********** Module lab_3
lab_3.py:84:14: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:127:0: C0303: Trailing whitespace (trailing-whitespace)
lab_3.py:130:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:131:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:22:14: C0103: Argument name "sd" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:37:23: C0103: Argument name "sd" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:53:22: C0103: Argument name "sd" doesn't conform to snake_case naming style (invalid-name)

lab_3.py:70:8: W0702: No exception type(s) specified (bare-except)
lab_3.py:86:14: C0103: Argument name "sd" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:103:4: C0103: Variable name "df" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:113:15: C0103: Argument name "sd" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:145:0: R0912: Too many branches (15/12) (too-many-branches)

Your code has been rated at 8.89/10 (previous run: 7.96/10, +0.93)

********** Module lab_3
lab_3.py:129:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:130:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:70:8: W0702: No exception type(s) specified (bare-except)
lab_3.py:144:0: R0912: Too many branches (15/12) (too-many-branches)

Your code has been rated at 9.63/10 (previous run: 8.89/10, +0.74)

********** Module lab_3
lab_3.py:133:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:134:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:74:15: W0703: Catching too general exception Exception (broad-except)
lab_3.py:74:8: C0103: Variable name "e" doesn't conform to snake_case naming style (invalid-name)
lab_3.py:148:0: R0912: Too many branches (15/12) (too-many-branches)

Your code has been rated at 9.55/10 (previous run: 9.63/10, -0.08)

********** Module lab_3
lab_3.py:133:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:134:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:74:15: W0703: Catching too general exception Exception (broad-except)
lab_3.py:148:0: R0912: Too many branches (15/12) (too-many-branches)

Your code has been rated at 9.64/10 (previous run: 9.55/10, +0.09)

********** Module lab_3
lab_3.py:148:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:149:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:163:0: R0912: Too many branches (15/12) (too-many-branches)

Your code has been rated at 9.75/10 (previous run: 9.75/10, +0.00)

********** Module lab_3
lab_3.py:148:0: C0301: Line too long (109/100) (line-too-long)
lab_3.py:149:0: C0301: Line too long (141/100) (line-too-long)
lab_3.py:163:0: R0912: Too many branches (15/12) (too-many-branches)

Your code has been rated at 9.76/10 (previous run: 9.76/10, +0.00)