**LAB #3 – State Capital and Flower List Application Program**

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Course – SDEV 300

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# **Test Plan**

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| **Test Case # 1 - Testing the displaying of all U.S. States in Alphabetical order along with the Capital, Population, and flower** | |
| **Input** | 1 |
| **Expected Output** | Displays all the 50 U.S. states with their information which contains the Capital name, the State Population, and the associated state flower. |
| **Actual Output** | Displays all the 50 U.S. states with their information which contains the Capital name, the State Population, and the associated state flower. |
| **Pass?** | **YES** |
| **Screenshots** | Text  Description automatically generated  Text  Description automatically generated    Text  Description automatically generated  Text  Description automatically generated  Text  Description automatically generated |

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| --- | --- |
| **Test Case # 2 - Used for testing entering a specific state and then displays the information (capital, population ,and flower)** | |
| **Input** | 2 |
| **Expected Output** | State Capital Population Flower  California Sacramento 39664128 California Poppy  Loads the California flower image to the screen, or in a different tab |
| **Actual Output** | State Capital Population Flower  California Sacramento 39664128 California Poppy  Loads the California flower image to the screen, or in a different tab |
| **Pass** | **Pass** |
| **Screenshots** | Text  Description automatically generated  Text  Description automatically generated with medium confidence  A yellow flower with a black background  Description automatically generated with medium confidence |

|  |  |
| --- | --- |
| **Test Case # 3 – Providing the plot of a bar graph of the top 5 populated states showing their population overall** | |
| **Input** | 3 |
| **Expected Output** | A displayed bar graph of the top 5 populated states showing their overall population |
| **Actual Output** | A displayed bar graph of the top 5 populated states showing their overall population |
| **Pass** | **YES** |
| **Screenshots** | Text  Description automatically generated      Chart, bar chart  Description automatically generated |

|  |  |
| --- | --- |
| **Test Case # 4 –** **Updating the overall population of a certain state entered by user** | |
| **Input** | 4  Montana  7893456 |
| **Expected Output** | Updated population for the state of Montana |
| **Actual Output** | Updated population for the state of Montana |
| **Pass** | **YES** |
| **Screenshots** | Text  Description automatically generated  Shape  Description automatically generated with low confidence  Text  Description automatically generated  **Updated overall state population for the state of Montana.** |

|  |  |
| --- | --- |
| **Test Case # 5- Exiting the program** | |
| **Input** | 5 |
| **Expected Output** | Thank you for testing my program application, take care!  Program exits/terminates. |
| **Actual Output** | Thank you for testing my program application, take care!  Program exits/terminates. |
| **Pass** | **YES** |
| **Screenshots** | Text  Description automatically generated |

|  |  |
| --- | --- |
| **Test Case # 6 – Checking to see if state entered is valid or not** | |
| **Input** | 2  Frankstein |
| **Expected Output** | Frankstein does not exist, please enter a valid state. |
| **Actual Output** | Frankstein does not exist, please enter a valid state. |
| **Pass** | **YES** |
| **Screenshots** | Text  Description automatically generated  **=**  Graphical user interface, text  Description automatically generated with medium confidence |

|  |  |
| --- | --- |
| **Test Case # 7 – Entering an input not between choices 1 and 5** | |
| **Input** | 8 |
| **Expected Output** | Not a Valid Input: Enter a value between the range 1-5. |
| **Actual Output** | Not a Valid Input: Enter a value between the range 1-5. |
| **Pass** | **YES** |
| **Screenshots** | Text  Description automatically generated  **=** |

Pylint results for n State Capital and Flower List Application Code

Graphical user interface, text, application

Description automatically generated

Throughout the completion of the Python State Capital and Flower List Application Code, I happened to experience a lot of extra whitespace issues, and warnings on using Boolean logical statements not in the correct way as expected by the Python Pylint scorer. Overall, my Pylint score for the entirety of this program was above 7.0/10.0 and to make it where it is now which is at a “10.0/10” I just made sure I had the appropriate docstrings for each of the functions I made, got rid of the extra whitespace, and eliminated any warnings throughout the testing process of my program. Overall, this program worked as expected without much trouble for the Pylint score result. My Pylint score has been better and better as I keep doing more Python labs throughout this course, which would hopefully for the last lab make my score perfect without at all too many issues. Mostly, throughout the program’s completion, my convention, and warnings were the key things making my Pylint score not close to “10.0/10”.