Lab 2: Deliverables Documentation + Test Cases

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SDEV 300 Building Secure Python Applications

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Pylint Score: Overall 10/10.0

The Pylint Score for my voter.py application started out as about a 9.5 because there was a new issue that I had never encountered before. Pylint mentioned that in my main function, I had too many branches. It took a while to figure out what that meant and was able to deduce that in order to fix it, it was better if I split my main into even more functions than I had originally. I had a HUGE nested while loop taking in all the users choices and then passing variables to functions based on that choice. Processing the users choice in main was too much for Pylint, so I broke the main function down into several functions so that there weren’t too many branches in one function.

Test Case Table

|  |  |  |
| --- | --- | --- |
| Test Case (Expectation) | Input/Output as shown on Terminal Console | Pass/Fail |
| 1: User choice data validation |  | Pass |
| 2a: Password generation validation; user must enter an integer only for length and valid complexities |  | Pass |
| 2b: Percentage calculation data validation; user cannot enter decimals or letters for any of the percentage calculations |  | Pass |
| 2c: Law of Cosines data validation; user can enter float or integer. No letter characters allowed |  | Pass |
| 2d: Volume of Cylinder data validation; user can enter float or integer. No letters or special characters allowed |  | Pass |
| 3: Overall Functionality; does everything work? |  | Pass |
| 4: Password generation includes all requested complexity |  | Pass |
| 5: Percentage is formatted properly |  | Pass |
| 6: Division by Zero gives error without program terminating. Allows user to re-enter a denominator if zero is entered |  | Pass |