Project: Bug Documentation Form

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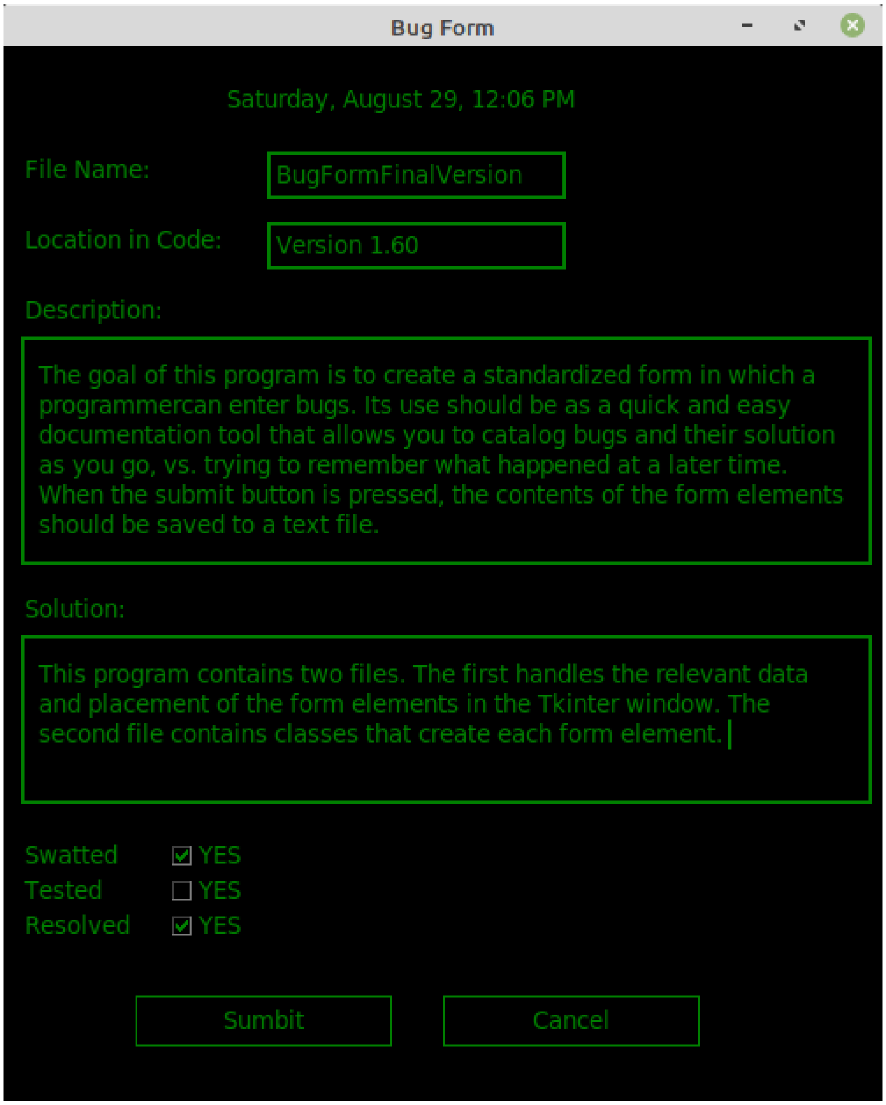
Summary

The goal of this program is to create a standardized form in which a programmer can enter bugs. It should be used as a quick and easy documentation tool where you can catalog bugs as you go vs. trying to remember them at a later time. The program is written in python and uses Tkinter to create a GUI with single-line entries, multi-line entries, checkbox and button elements. When the submit button is pressed the contents of the form elements should be saved to a text file.

Bug Documentation Form: Final Version



Saturday, August 29, 12:06 PM

File Name: BugFormFinalVersion

Location in Code: Version 1.60

Description:

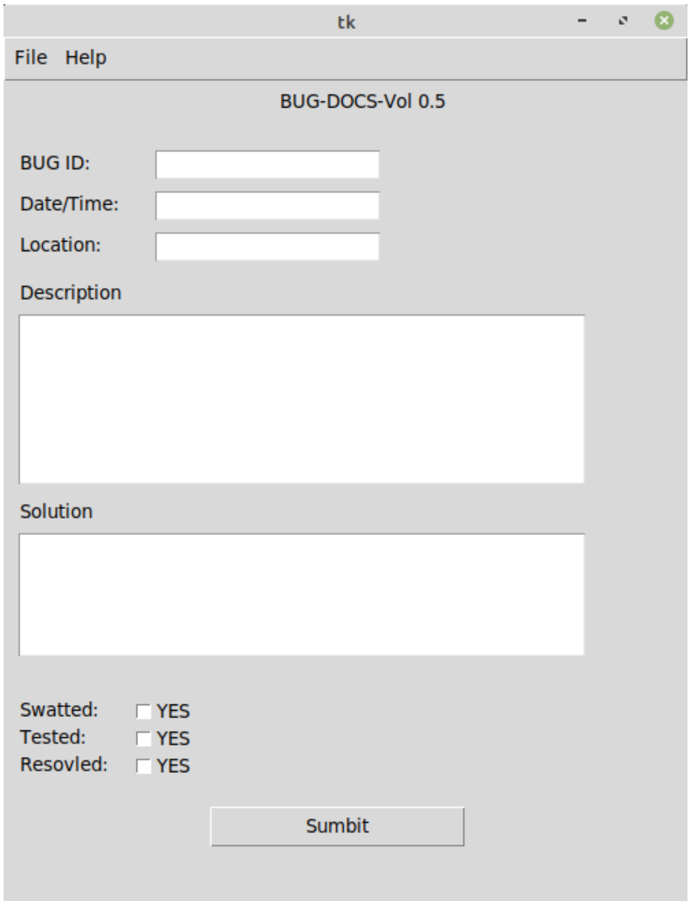
The goal of this program is to create a standardized form in which a programmercan enter bugs. Its use should be as a quick and easy documentation tool that allows you to catalog bugs and their solution as you go, vs. trying to remember what happened at a later time. When the submit button is pressed, the contents of the form elements should be saved to a text file.

Solution:

This program contains two files. The first handles the relevant data and placement of the form elements in the Tkinter window. The second file contains classes that create each form element.

Swatted ☑ YES
Tested □ YES
Resolved ☑ YES

Bug Documentation Form: Version 0.5



Version Goals:

The objective of this version is to achieve basic functionality of the form and demonstrate it's layout. An additional goal is to gain experience working with the various Tkinter widgets, such as labels, text entries, check-boxes and buttons. Also the contents of each widget should be displayed to the console when the submit button is pressed. This will help with the testing and the recording of the form data.

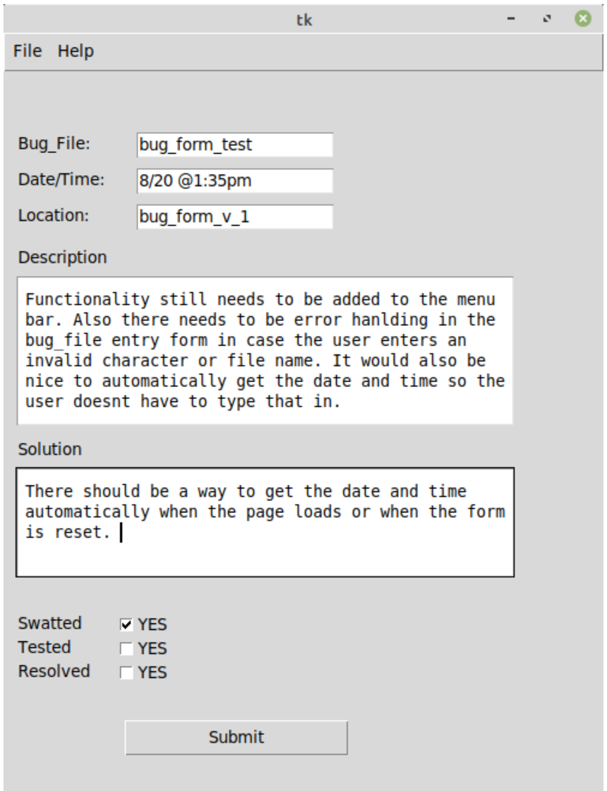
Version Notes:

The most challenging aspect of this version was figuring out how how to print the text data when the submit button is pressed. In order to achieve this, a lambda function was used for the button's command. However, after the main-loop of the root window, Tkinter forms no longer exist which makes it difficult to save data. Global lists or dictionaries can be used but this does not seem like the best option.

To Do for next version:

- <u>Need to Build a Class Structure to Create the Form Elements:</u>At the moment the form elements are created with a series of functions. This has become difficult to keep track of. Classes should be constructed for each form element.
- <u>Need to save the form data to a text file:</u> When the submit button is pressed the data in each form element should be saved to a text file.

Bug Documentation Form: Version 1.0



Bug_File: bug_form_test

Date/Time: 8/20 @1:35pm

Location: bug_form_v_1

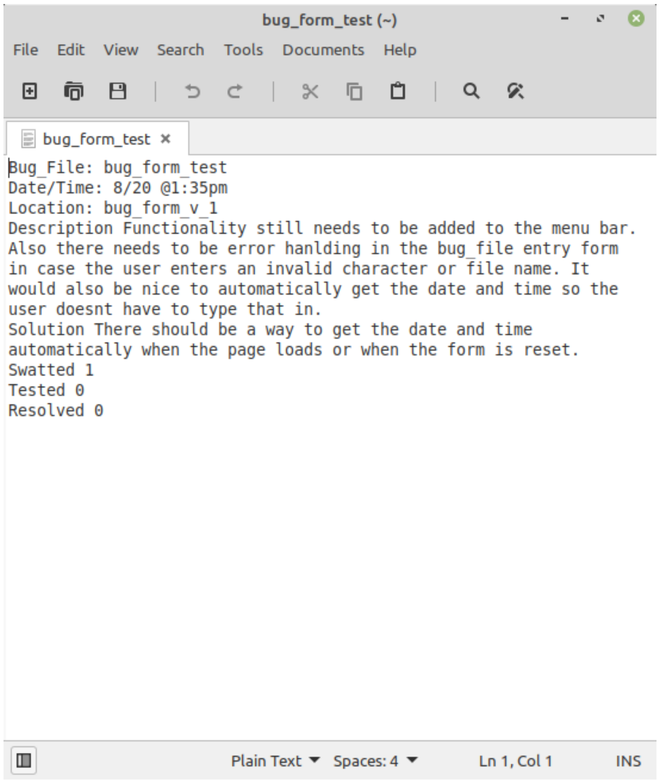
Description

Functionality still needs to be added to the menu bar. Also there needs to be error hanlding in the bug_file entry form in case the user enters an invalid character or file name. It would also be nice to automatically get the date and time so the user doesnt have to type that in.

Solution

There should be a way to get the date and time automatically when the page loads or when the form is reset.

Swatted ☑ YES
Tested ☐ YES
Resolved ☐ YES



```
Bug_File: bug_form_test
Date/Time: 8/20 @1:35pm
Location: bug_form_v_1
Description Functionality still needs to be added to the menu bar.
Also there needs to be error hanlding in the bug_file entry form
in case the user enters an invalid character or file name. It
would also be nice to automatically get the date and time so the
user doesnt have to type that in.
Solution There should be a way to get the date and time
automatically when the page loads or when the form is reset.
Swatted 1
Tested 0
Resolved 0
```

Version Goals:

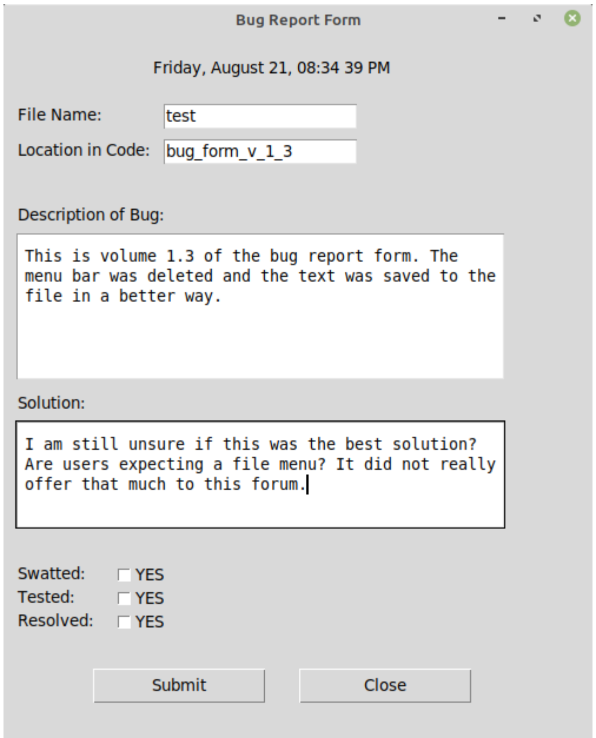
The goal of this version is to demonstrate full functionality of the bug documentation form. The buttons and check-boxes should be responsive, the entry forms should accept text and all the relevant data from the form should be saved to a text file when the submit button is pressed.

To Do for Next Version:

- Reset the bug form when the submit button is pressed: the user may a need to submit more than one bug at a time. Therefore when the submit button is pressed the data should be added to a text file and the text in each form should be reset.
- Automatically Insert the Date and Time: The computer has this information, therefore the user shouldn't have to insert it. A time stamp should be developed that displays the current time and resets when the submit button is pressed.
- Error Handling for the File Name: Since the filename is entered manually there is a chance that the user may type in an invalid file name or character sequence.
- Functioning File Menu: It may be beneficial to save or open a bug form that has been previously worked on and a help menu can give guidance to the user.

***Note:** versions 1.1-1.2 consisted of small changes and are not worth of a full description.*

Bug Documentation Form: Version 1.3



Friday, August 21, 08:34 39 PM

File Name: test

Location in Code: bug_form_v_1_3

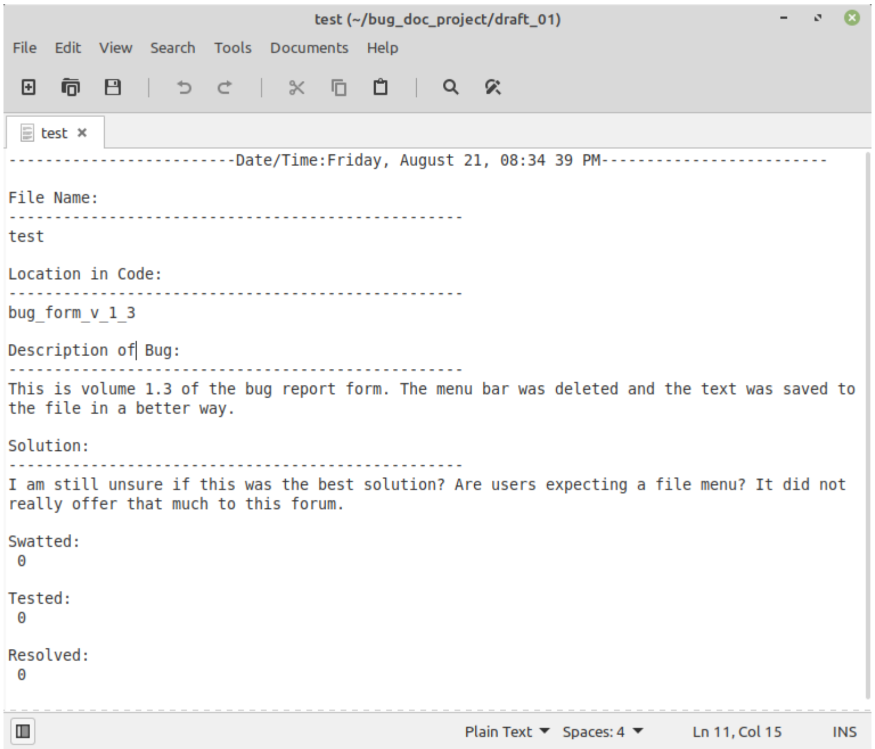
Description of Bug:

This is volume 1.3 of the bug report form. The menu bar was deleted and the text was saved to the file in a better way.

Solution:

I am still unsure if this was the best solution? Are users expecting a file menu? It did not really offer that much to this forum.

Swatted: □ YES
Tested: □ YES
Resolved: □ YES



```
-----------------------Date/Time:Friday, August 21, 08:34 39 PM-----------------------

File Name:
------------------------------------------------
test

Location in Code:
------------------------------------------------
bug_form_v_1_3

Description of Bug:
------------------------------------------------
This is volume 1.3 of the bug report form. The menu bar was deleted and the text was saved to
the file in a better way.

Solution:
------------------------------------------------
I am still unsure if this was the best solution? Are users expecting a file menu? It did not
really offer that much to this forum.

Swatted:
 0

Tested:
 0

Resolved:
 0
```

Version Summary:

The objective of this version is to automatically update the time and provide error handling in the file name entry box. An additional goal is to format the text file so that it displays the information in a nicer way. The date and time should be at the top of the text file and the data should have better spacing.

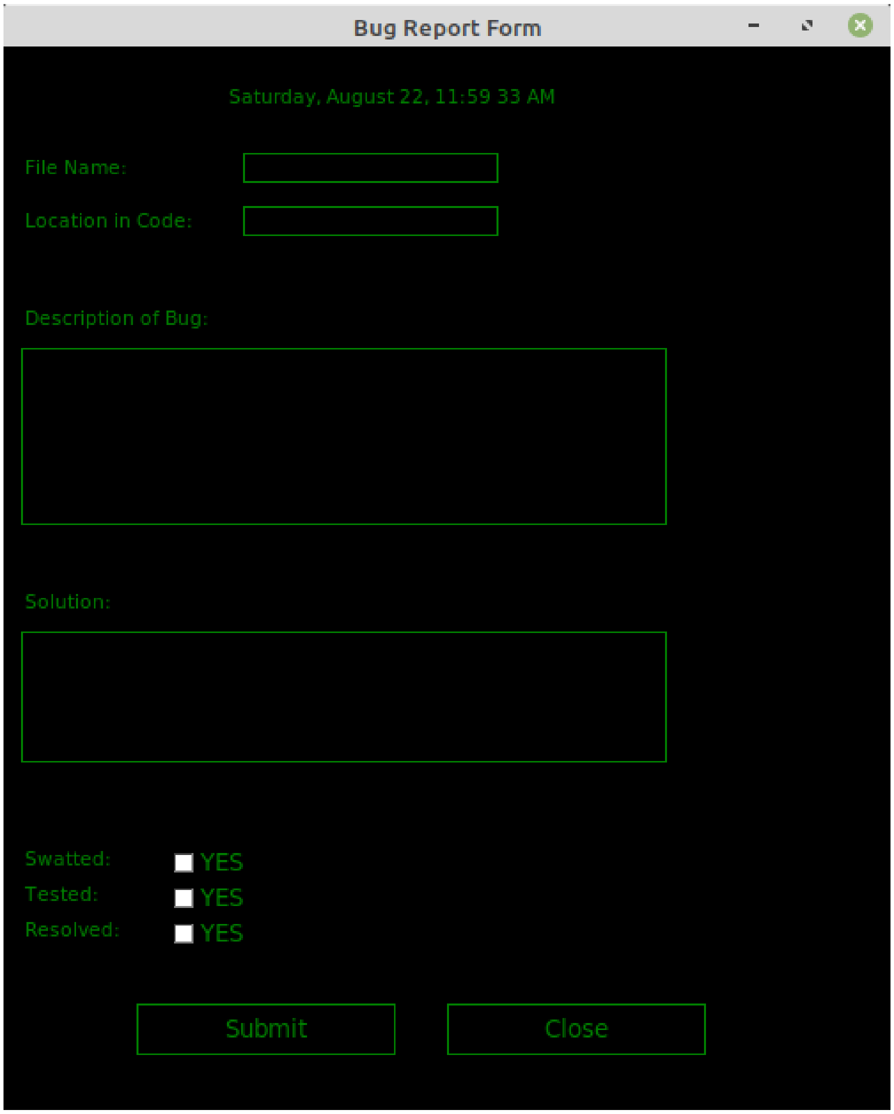
Version notes:

The file menu was removed. It did not add anything import to the form and just ended up making the program more complex. The original idea was to make a simple entry form and the file menu seems to be unnecessary.

To do for next version:

- Change the aesthetics of the form: The original idea was to have the form be colored green and black to mimic the look and feel of a system screen. This is not important for functionality but is part of the aesthetic goal of the form.
- Change the width of the Text Boxes: At the moment the text boxes are too narrow should be widened to look more proportional with respect to the main window.

Bug Documentation Form: Version 1.40



Saturday, August 22, 11:59 33 AM

Version Goals:

This goal of this version is to updated the look and feel of the bug document form. The original idea was for the form to be green and black to mimic an old system screen. The text should also be changed and thin borders should be placed around the text boxes.

To do for next version:

- <u>Update the Class Structure: </u>The most significant problem with the code at the moment is that there is a considerable amount of code repetition and the class structure is not robust. Patterns have emerged and the code can be simplified. A proper class hierarchy can take advantage of some of the attributes that the form elements have in common.
- <u>Check-box Color :</u> The color inside the check-boxes should be black.
- <u>Fix text entry issues:</u>When the user enters text into the entry boxes the border disappears, this does not align with the design goals and should be changed.

Bug Documentation Form: Version 1.50

Version Goals:
The objective of this version is to create a better class structure for the program. In previous versions each form element has its own class. This redundant since there is considerable code repetition for the each of the elements. For example: all elements have an position, label and description. This information should be put in a super-class. Subtle layout changes should also be made to refine the aesthetics, such as changing the color of the button when hovering over and adjusting placement of form entries.

Class Structure:

- Form
    - Entry Element
        - Single Line
        - Multi Line
        - Checkbox Element
    - Submit Button
    - Cancel Button
    - Time Stamp

Class Descriptions:

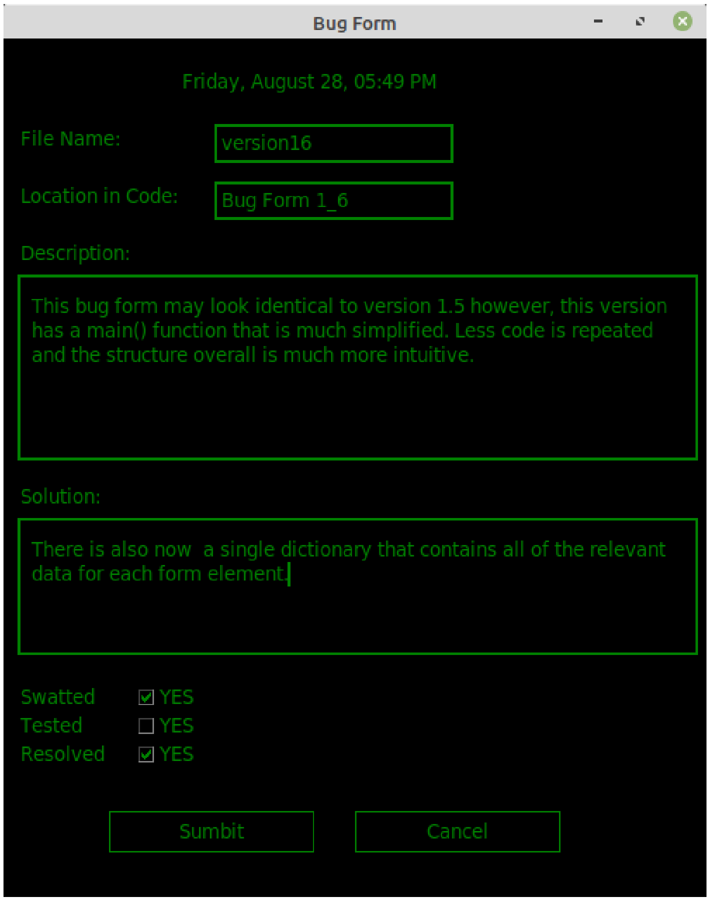
Form:
The elements of bug form have many attributes in common such as position, label, description, background color and font size. This should be the super class that all the other form elements inherit from and can save a considerable amount of code.

Entry Element:
The Single Line, Multi Line and Checkbox elements all get information from the user. Thus they can all be enveloped by a super class. The individual entry elements handle data differently and should therefore be unique classes.

Submit/Cancel Button:
Although the Submit and Cancel button do share some similarities they each have their own distinct functionality so separate classes are required. The submit button extracts the data from the form elements and then resets the form whereas the cancel button just closes the window. The submit button is much more complex than the cancel button.

Time Stamp:
The time stamp is a bit of an outlier when compared to the to the other form elements. Its job is to display the current time to the user and update when the submit button is pressed. It’s label and styling is the same as the other elements, therefore it should still be a child of the form class.

Bug Documentation Form: Version 1.60



Friday, August 28, 05:49 PM

File Name: version16

Location in Code: Bug Form 1_6

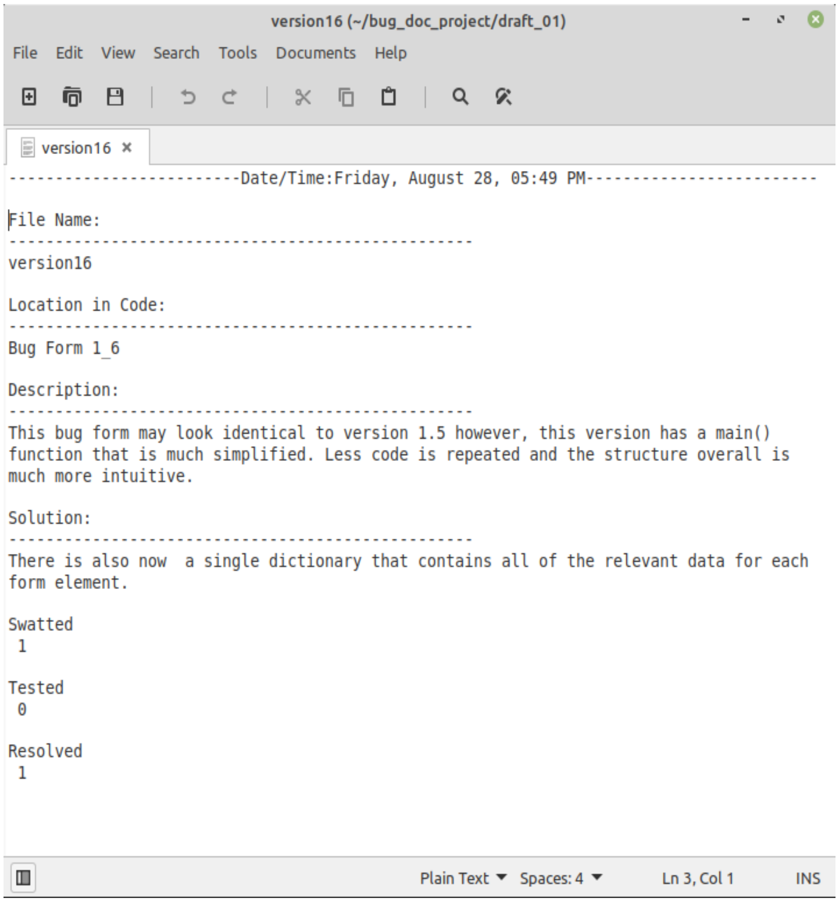
Description:

This bug form may look identical to version 1.5 however, this version has a main() function that is much simplified. Less code is repeated and the structure overall is much more intuitive.

Solution:

There is also now a single dictionary that contains all of the relevant data for each form element.

Swatted ☑ YES
Tested ☐ YES
Resolved ☑ YES



```
------------------------Date/Time:Friday, August 28, 05:49 PM------------------------

File Name:
--------------------------------------------------
version16

Location in Code:
--------------------------------------------------
Bug Form 1_6

Description:
--------------------------------------------------
This bug form may look identical to version 1.5 however, this version has a main()
function that is much simplified. Less code is repeated and the structure overall is
much more intuitive.

Solution:
--------------------------------------------------
There is also now  a single dictionary that contains all of the relevant data for each
form element.

Swatted
 1

Tested
 0

Resolved
 1
```

Version Goals:

This version is intended to be the stopping point for this project. The overall look and feel of the form aligns with what what I originally intended. However, at this point there was a considerable amount of code repeat in the main function that I realized could be simplified with separate functions. A main dictionary was also created that contains all the relevant information about the placement and description of each form element.

To do for future versions:

- Change the Color of the Checkbox Border: Currently the checkbox has a thin gray border which does not fit the theme of black and green. This doesn't bother me too much so I'll keep it.
- Change the Color of the Title Bar: The title bar at the moment it is light gray and it doesn't fit the theme. However I cannot find the proper way to fix this so for now I'll keep it.
- Placement of Form Elements: The current time stamp is slightly off center when compared to the other elements, but this is a quick fix which isn't much of an issue. The spacing across all of the elements could also be refined but at the moment everything is acceptable.