Introduction Document for Week4 DQ1

This project contains 3 public classes:

1. Dollar
   1. This class serves as the blueprint for the Dollar object.
   2. Contains the following private instance variables:
      1. dollarAmount, which stores the dollar amount with the data type of BigDecimal().
   3. The dollar can be instantiated with the dollarAmount or without. If done without this value, then it is initialized to zero.
   4. Contains set and get methods for accessing and assigning the value for the instance variable.
   5. Contains getGbpAmount() method, which returns the equivalent amount in British Pound Sterling (GBP.
2. DollarToGbpJFrame
   1. This is the application class for this project, and is used to create an instance of the Dollar class.
   2. Extends the JFrame class
   3. Imports:
      1. javax.swing components so that JButtons, JFrames, JOptionPane dialog boxes, and JTextFields can be created.
      2. java.awt components so that:
         1. FlowLayout can be used, which specifies the arrangements of components.
         2. Event listeners and handlers can be created
   4. Contains instance variables:
      1. dollarTextField, which is of type JTextField, and is used for the space that the user will enter the input.
      2. convertJButton, which is of type JButton, and is used to create the button that is pressed to initiate the events that convert the input in dollars to GBP.
      3. cancelJButton, which of type JButton, and is used to create the button that is pressed to initiate the events that ends the program.
   5. Contains the private class ButtonHandler, which implements the ActionListener interface.
      1. This private class is used for event handling (what to do when buttons are pressed).
   6. Contains the private static method isInputValid(), which returns true if the input received from the user is valid (must be in the format xx.xx, or xx, where “x” is a numeric character).
   7. Contains the public instance method displayInvalidMsg(), which informs the user that an invalid input was received if:
      1. The input fails isInputValid() or
      2. The string was not able to be converted to BigDecimal data type.
3. Week4DQ1Driver
   1. This class is used to create an instance of the DollarToGbpJFrame class.
   2. The size of the JFrame created is specified.
   3. When the JFrame is closed, the program exits.