

SubmitListener.java

```

1 package tellscopeV4;
2
3 /* import libraries */
4 import java.awt.event.ActionEvent;
5
6
7
8
9
10
11
12 /* declare class and implement action listener */
13 public class SubmitListener implements ActionListener {
14
15     /* declare local attributes */
16     private static PrintWriter out;           //create printwriter attribute
17     private static Socket s;                 //create socket attribute
18     private static Thread resultsThread;     //create thread attribute
19     private boolean isNotNull;               //create boolean for null validation
20     private boolean isNotChar;               //create boolean for char validation
21
22
23     public void actionPerformed(ActionEvent e) {           //actionperformed method
24
25         /* run methods to check if user input is null or has invalid characters */
26         isNotNull = TellScopeGui04.checkInputForNull();     //call checkInputForNull method to
27         isNotChar = TellScopeGui04.checkInputForChars();    //call checkInputForNull method to
28
29         /* use the results of validation methods to either connect to network and wait for results,
30          * or display error messages based on the specific validation error
31          */
32         if(isNotNull == true)
33         {
34             if(isNotChar == false)
35             {
36                 JOptionPane.showMessageDialog(TellScopeGui04.txtFocalInput,           //create a new message dialog box
37                 "Inputs may not contain charcters or symbols!",                       //print message to user
38                 "Invalid Entry",                                                       //set title of dialog box
39                 JOptionPane.ERROR_MESSAGE);                                           //set box type to error
40             }
41
42             else
43             {
44                 //if all inputs have been entered
45
46                 String lensDiamter = TellScopeGui04.txtLensDiameter.getText();         //get user input for lens
47                 String focalRatio = TellScopeGui04.txtFocalRatio.getText();           //get user input for lens focal
48                 String eyeFocalLength = TellScopeGui04.txtEyeFocalLength.getText();   //get user input for lens
49                 TellScopeGui04.resetInputs();                                         //reset the user input text
50
51                 /* create a new socket using the getSocket() method and the port number */
52                 s = TellScopeGui04.getSocket(1234);                                  //create new socket
53
54                 try {
55                     out = new PrintWriter(s.getOutputStream(), true);               //try catch block for printwriter
56                     resultsThread = new Thread(new ClientListeningThread(s));        //create new results listening
57                     resultsThread.start();                                           //start results listening thread
58                 } catch (IOException f) {
59                     f.printStackTrace();                                           //catch any exceptions
60                     //print the exception
61                 }
62
63                 /* check if the user has selected reflecting or refracting telescope */
64                 if(TellScopeGui04.reflect.isSelected())                           //if reflect is selected
65                 {
66                     /* get the text and write users input to socket */
67                     out.println("reflect");                                         //send keyword "reflect" to
68
69                     out.println(focalRatio);                                       //send focal ratio to server
70                     out.println(lensDiamter);                                       //send lens diameter to
71
72                     out.println(eyeFocalLength);                                   //send eye focal length to
73                     out.println("calculate");                                       //send keyword "calculate" to
74                 }
75
76                 else if(TellScopeGui04.refract.isSelected())                     //else if refract is selected
77                 {
78                     /* get the text and write users input to socket */
79                     out.println("refract");                                         //send keyword "refract" to
80
81                     out.println(focalRatio);                                       //send focal ratio to server
82                     out.println(lensDiamter);                                       //send lens diameter to
83
84                     out.println(eyeFocalLength);                                   //send eye focal length to
85                     out.println("calculate");                                       //send keyword "calculate" to

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server"
84
85
86         }
87
88     }
89
90     else                                     //if(isNotNull == false)
91     {
92         JOptionPane.showMessageDialog(TellScopeGui04.txtFocalRatio, //create a new message dialog box
93             "You must enter values for all three fields",           //print message to user
94             "Invalid Entry",                                         //set title of dialog box
95             JOptionPane.ERROR_MESSAGE);                             //set box type to error
96     }
97
98
99     } //end action performed method
100
101
102
103 } //end SubmitListner()
104

```