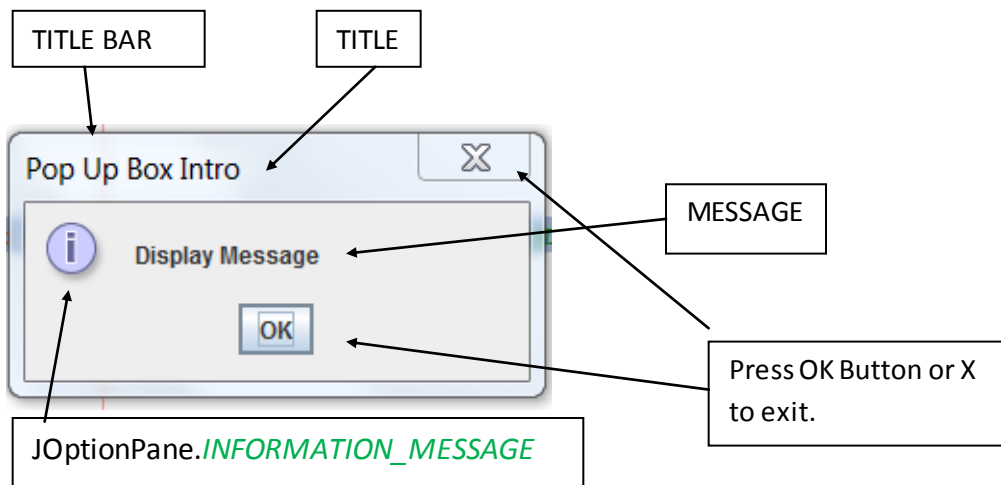
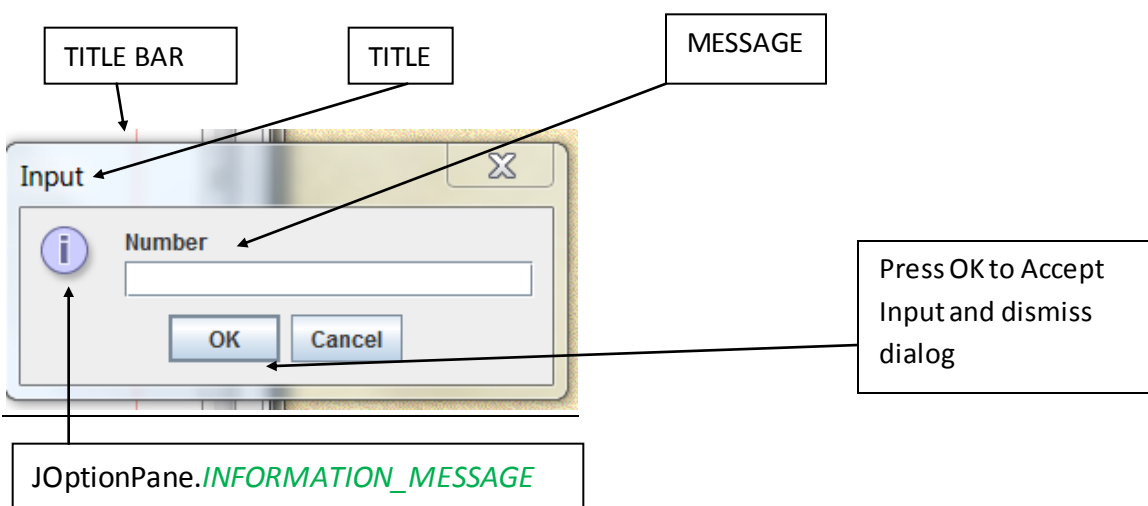


<http://docs.oracle.com/javase/tutorial/uiswing/components/dialog.htm>

```
import javax.swing.JOptionPane;
```



```
JOptionPane.showMessageDialog(null, "Display Message", "Pop Up Box Intro",  
JOptionPane.INFORMATION_MESSAGE);
```



```
String sample = JOptionPane.showInputDialog(null, "Number", "Input",  
JOptionPane.INFORMATION_MESSAGE);
```

null- the zero-valued ASCII character, also designated by NUL, often used as a terminator, separator or filler

String- character strings. All string literals in Java programs, such as "abc", are implemented as instances of this class.

System.exit(0); -very raw, low-level, and unsafe way to end your program

Parsing Method- is the process of analysing a string of symbols, either in natural language or in computer languages, conforming to the rules of a formal grammar.

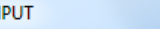
`int anynumber = Integer.parseInt(sample);` - converting the type of string in to Int

Programming Assignment:

Task 1:

Take your program from Assignment 4, Task #2 and change it so the user enters the number of seconds she wants to convert using a `JOptionPane.showInputDialog` “pop up box” for input. If the user exits out the program by pressing the “X” button, prompt the user with a message and the program should end without an error. Change the program so all outputs are returned in a `JOptionPane.showMessageDialog` “pop up box”.

```
1 package javaapplication1;
2
3
4 import javax.swing.JOptionPane;
5
6 public class JavaApplication1 {
7
8
9     public static void main(String[] args) {
10
11         int minute, hour, second;
12
13         String input = JOptionPane.showInputDialog(null, "Number", "Input",
14             JOptionPane.INFORMATION_MESSAGE);
15
16         if(input == null) {
17             JOptionPane.showMessageDialog(null, "You clicked X, The program is exit now!", "OUTPUT ",
18                 JOptionPane.INFORMATION_MESSAGE);
19             System.exit(0);
20         }
21
22         if(input.length() == 0) {
23             JOptionPane.showMessageDialog(null, "You didn't input any value!", "OUTPUT ",
24                 JOptionPane.INFORMATION_MESSAGE);
25             System.exit(0);
26         }
27
28         second = Integer.parseInt(input);
29
30         if(second < 86400) {
31             hour = second / 3600;
32             minute = (second / 60) % 60;
33             second = second % 60;
34
35             JOptionPane.showMessageDialog(null, hour + " hours " + minute + " minutes "
36                 + second + " seconds ", "INPUT ",
37                 JOptionPane.INFORMATION_MESSAGE);
38         }
39
40         if(second >= 86400) {
41             JOptionPane.showMessageDialog(null, "Seconds exceeds a day!", "OUTPUT ",
42                 JOptionPane.INFORMATION_MESSAGE);
43         }
44
45         System.exit(0);
46     }
47 }
48
49
50 }
```

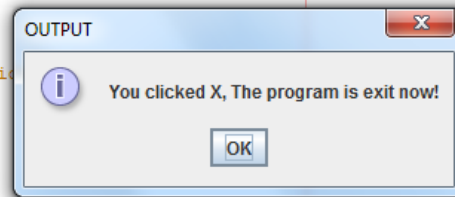


INPUT

0 hours 11 minutes 39 seconds

OK

```
4 import javax.swing.JOptionPane;
5
6 public class JavaApplication1 {
7
8
9     public static void main(String[] args) {
10
11         int minute, hour, second;
12
13         String input = JOptionPane.showInputDialog(null, "Number", "Input",
14             JOptionPane.INFORMATION_MESSAGE);
15
16         if(input == null) {
17             JOptionPane.showMessageDialog(null, "You clicked X, The program is exit now!", "OUTPUT ",
18                 JOptionPane.INFORMATION_MESSAGE);
19             System.exit(0);
20         }
21
22         if(input.length() == 0) {
23             JOptionPane.showMessageDialog(null, "You clicked X, The program is exit now!", "OUTPUT ",
24                 JOptionPane.INFORMATION_MESSAGE);
25             System.exit(0);
26         }
27
28         second = Integer.parseInt(input);
29
30         if(second < 86400) {
31             hour = second / 3600;
32             minute = (second / 60) % 60;
```



Task 2:

Using **If** and Logical operator statements. Write a program that computes a single filer's income tax burden.

TAX RATE	Single Filers Income
10%	Up to \$6000
15%	\$6,001 - \$27,950
27%	\$27,951 - \$67,700
30%	\$67,701 - \$141,250
35%	\$141,251 - \$307,050
38.6%	\$307,051 or more

The user should be able input his data into a `JOptionPane.showInputDialog` “pop up box”

The output can be a simple `system.println` output.

Attach Snipping photos displaying output from different tax rates.

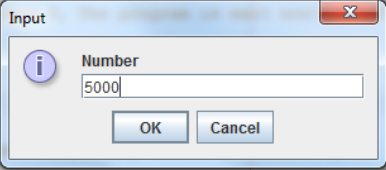
Don't worry about output formatting yet.

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6  package javaapplication2;
7
8  import javax.swing.JOptionPane;
9
10
11 public class JavaApplication2 {
12
13     public static void main(String[] args) {
14         String input = JOptionPane.showInputDialog(null, "Number", "Input",
15             JOptionPane.INFORMATION_MESSAGE);
16
17         if(input == null) {
18             JOptionPane.showMessageDialog(null, "You clicked X, The program is exit now!", "OUTPUT ",
19                 JOptionPane.INFORMATION_MESSAGE);
20             System.exit(0);
21         }
22
23         if(input.length() == 0) {
24             JOptionPane.showMessageDialog(null, "You didn't input any value!", "OUTPUT ",
25                 JOptionPane.INFORMATION_MESSAGE);
26             System.exit(0);
27         }
28
29         Double tax = Double.parseDouble(input);
30
31         if(tax < 0) {
32             JOptionPane.showMessageDialog(null, "You entered a negative value!", "OUTPUT ",
33                 JOptionPane.INFORMATION_MESSAGE);
34             System.exit(0);
35         }
36
37         if(tax >= 0) {
38             if(tax < 6001) {
39                 tax = tax * 0.10;
40                 JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
41                     JOptionPane.INFORMATION_MESSAGE);
42                 System.exit(0);
43             }
44         }
45     }
46 }
```

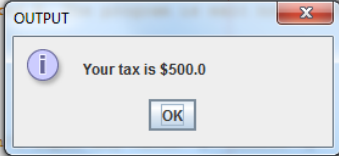


```
44     if((tax >= 6001) && (tax <= 27950)) {
45         tax = tax * 0.15;
46         JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
47             JOptionPane.INFORMATION_MESSAGE);
48         System.exit(0);
49     }
50     if((tax >= 27951) && (tax <= 67700)) {
51         tax = tax * 0.27;
52         JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
53             JOptionPane.INFORMATION_MESSAGE);
54         System.exit(0);
55     }
56     if((tax >= 67701) && (tax <= 141250)) {
57         tax = tax * 0.30;
58         JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
59             JOptionPane.INFORMATION_MESSAGE);
60         System.exit(0);
61     }
62     if((tax >= 141251) && (tax <= 307050)) {
63         tax = tax * 0.35;
64         JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
65             JOptionPane.INFORMATION_MESSAGE);
66         System.exit(0);
67     }
68     if(tax > 307051) {
69         tax = tax * 0.386;
70         JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
71             JOptionPane.INFORMATION_MESSAGE);
72         System.exit(0);
73     }
74
75 }
76
77 }
78
79 }
80
```

```
1  /*
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6  package javaapplication2;
7
8  import javax.swing.JOptionPane;
9
10
11  public class JavaApplication2 {
12
13      public static void main(String[] args) {
14          String input = JOptionPane.showInputDialog(null, "Number", "Input",
15              JOptionPane.INFORMATION_MESSAGE);
16
17          if(input == null) {
18              JOptionPane.showMessageDialog(null, "You clicked Cancel", "OUTPUT ",
19                  JOptionPane.INFORMATION_MESSAGE);
20              System.exit(0);
21          }
22
23          if(input.length() == 0) {
24              JOptionPane.showMessageDialog(null, "You did not enter a value", "OUTPUT ",
25                  JOptionPane.INFORMATION_MESSAGE);
26              System.exit(0);
27          }
28
29          Double tax = Double.parseDouble(input);
30
31          if(tax < 0) {
32              JOptionPane.showMessageDialog(null, "You entered a negative value!", "OUTPUT ",
33                  JOptionPane.INFORMATION_MESSAGE);
34              System.exit(0);
35          }
36
37          if(tax >= 0) {
38              if(tax < 6001) {
39                  tax = tax * 0.10;
40                  JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
41                      JOptionPane.INFORMATION_MESSAGE);
42                  System.exit(0);
43              }
44              if(tax >= 6001) {
45                  tax = tax * 0.20;
46                  JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
47                      JOptionPane.INFORMATION_MESSAGE);
48                  System.exit(0);
49              }
50          }
51      }
52  }
```



```
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5   */
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8
9  import javax.swing.JOptionPane;
10
11 public class JavaApplication2 {
12
13     public static void main(String[] args) {
14         String input = JOptionPane.showInputDialog(null, "Number", "Input",
15             JOptionPane.INFORMATION_MESSAGE);
16
17         if(input == null) {
18             JOptionPane.showMessageDialog(null, "You clicked Cancel",
19                 JOptionPane.INFORMATION_MESSAGE);
20             System.exit(0);
21         }
22
23         if(input.length() == 0) {
24             JOptionPane.showMessageDialog(null, "You didn't enter anything",
25                 JOptionPane.INFORMATION_MESSAGE);
26             System.exit(0);
27         }
28
29         Double tax = Double.parseDouble(input);
30
31         if(tax < 0) {
32             JOptionPane.showMessageDialog(null, "You entered a negative value!", "OUTPUT ",
33                 JOptionPane.INFORMATION_MESSAGE);
34             System.exit(0);
35         }
36
37         if(tax >= 0) {
38             if(tax < 6001) {
39                 tax = tax * 0.10;
40                 JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
41                     JOptionPane.INFORMATION_MESSAGE);
42                 System.exit(0);
43             }
44             //if(tax >= 6001) {
45                 tax = tax * 0.20;
46                 JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
47                     JOptionPane.INFORMATION_MESSAGE);
48                 System.exit(0);
49             }
50         }
51     }
52 }
```



```
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7
8  import javax.swing.JOptionPane;
9
10
11 public class JavaApplication2 {
12
13     public static void main(String[] args) {
14         String input = JOptionPane.showInputDialog(null, "Number", "Input",
15             JOptionPane.INFORMATION_MESSAGE);
16
17         if(input == null) {
18             JOptionPane.showMessageDialog(null, "You clicked X, The program is exit now!", "OUTPUT ",
19                 JOptionPane.INFORMATION_MESSAGE);
20             System.exit(0);
21         }
22
23         if(input.length() == 0) {
24             JOptionPane.showMessageDialog(null, "You did not enter a value!", "OUTPUT ",
25                 JOptionPane.INFORMATION_MESSAGE);
26             System.exit(0);
27         }
28
29         Double tax = Double.parseDouble(input);
30
31         if(tax < 0) {
32             JOptionPane.showMessageDialog(null, "You entered a negative value!", "OUTPUT ",
33                 JOptionPane.INFORMATION_MESSAGE);
34             System.exit(0);
35         }
36
37         if(tax >= 0) {
38             if(tax < 6001) {
39                 tax = tax * 0.10;
40                 JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
41                     JOptionPane.INFORMATION_MESSAGE);
42                 System.exit(0);
43             }
44             if(tax >= 6001) {
45                 tax = tax * 0.20;
46                 JOptionPane.showMessageDialog(null, "Your tax is $" + tax, "OUTPUT ",
47                     JOptionPane.INFORMATION_MESSAGE);
48                 System.exit(0);
49             }
50         }
51     }
52 }
```

