

Flare-On 5: Challenge 1 Solution - Minesweeper Championship

Registration.jar

Challenge Author: Nick Harbour

Description

This year's first challenge was a Java GUI application that presents the following simple dialog prompt to the user when launched.

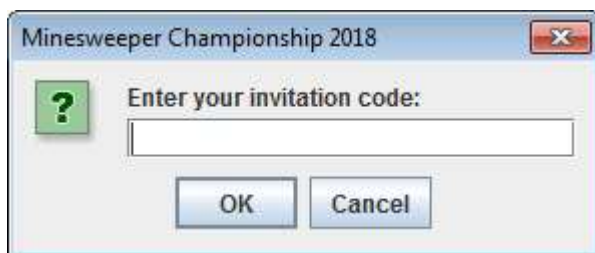


Figure 1: Input Dialog

If you enter the correct code (which is the challenge key) into this dialog it will present a dialog box telling you that you entered the correct key, otherwise it will present a dialog box telling you it was incorrect.

Solution

This year's first challenge returned Flare-On to its approach of having a first challenge that was so easy it was almost a captcha to see how many people were actually making any attempt to play. An obvious approach to reverse engineering Java programs is to attempt to decompile them. Due to the design of the Java platform programs will often decompile into perfectly readable source code unless a deliberate obfuscation step was introduced by the programmer. The following screenshot shows this challenge loaded into JD-GUI.

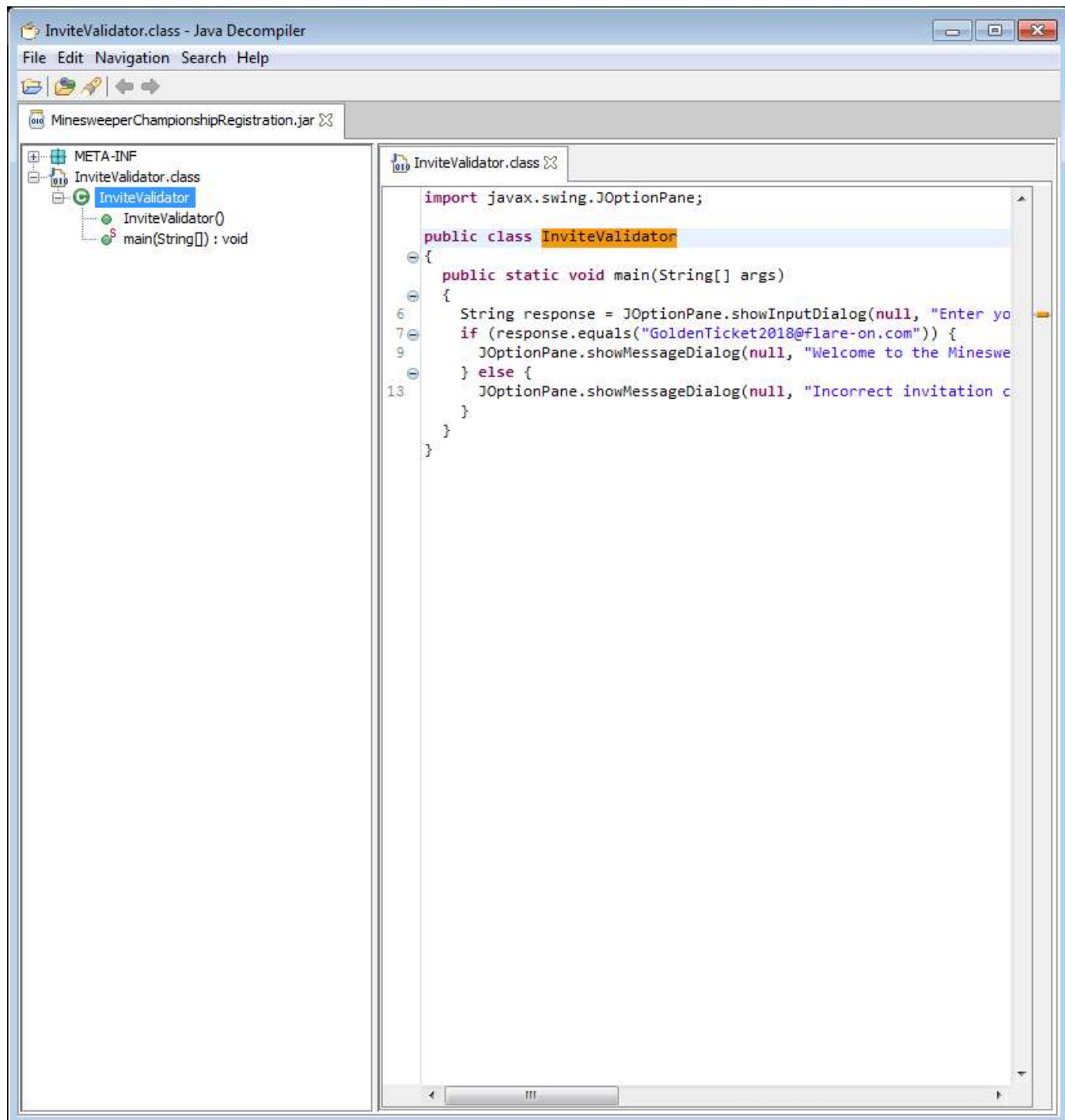


Figure 2: JD-GUI decompilation

You will notice in the decompiled program there is only one class (named `InviteValidator`) which contains the `main()` function. The code contained in the main function simply compares the string inputted in the input dialog box with the string “`GoldenTicket2018@flare-on.com`” and decides which message box message to show based on that comparison. The full decompiled text of this class is shown in Figure 3 below.

```
import javax.swing.JOptionPane;

public class InviteValidator
{
    public static void main(String[] args)
    {
        String response = JOptionPane.showInputDialog(null, "Enter your invitation code:", "Minesweeper Championship 2018", 3);
        if (response.equals("GoldenTicket2018@flare-on.com")) {
            JOptionPane.showMessageDialog(null, "Welcome to the Minesweeper Championship 2018!\nPlease enter the following code to the ctf.d.flare-on.com website to compete:\n\n" + response, "Success!", -1);
        } else {
            JOptionPane.showMessageDialog(null, "Incorrect invitation code. Please try again next year.", "Failure", 0);
        }
    }
}
```

Figure 3: Decompiled Source Code

If you entered the correct key (“`GoldenTicket2018@flare-on.com`”) into the dialog you would be presented with the following success dialog.

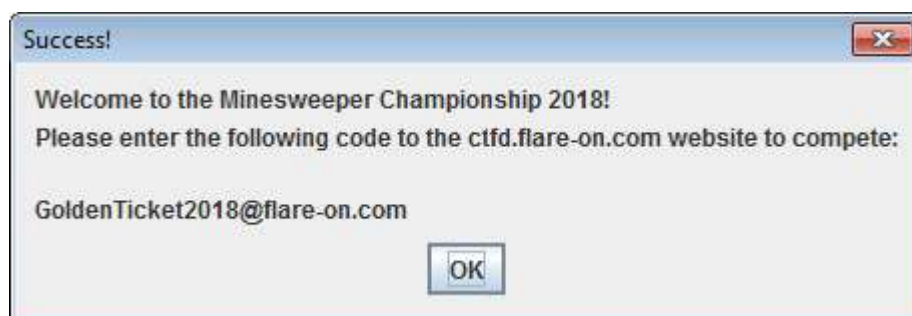


Figure 4: Success Dialog