

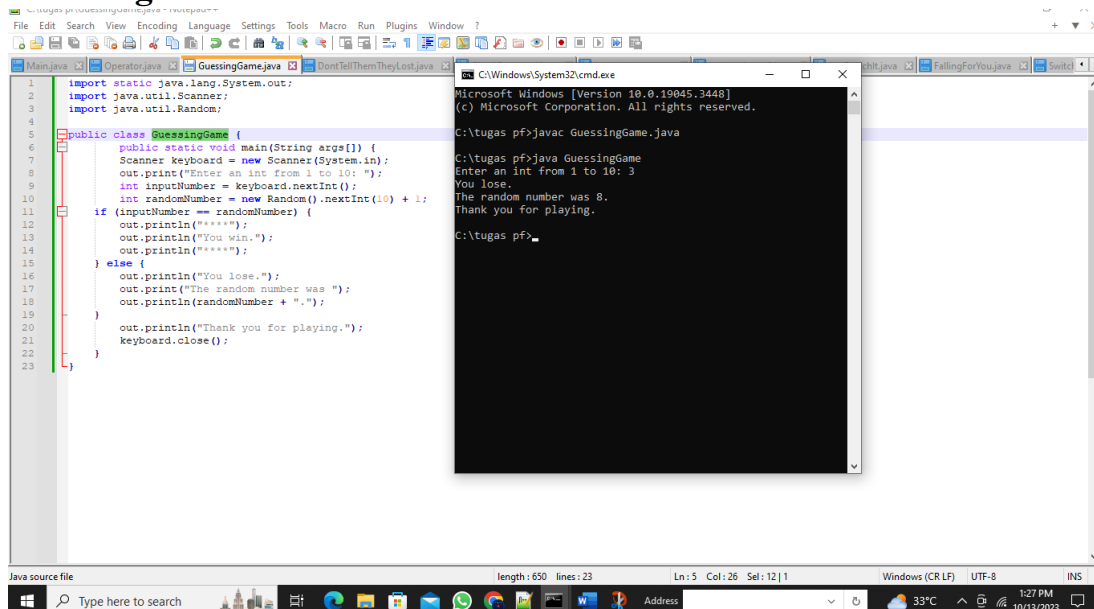
TUGAS PEMOGRAMAN FUNDAMENTAL

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1. GuessingGame



```
1 import static java.lang.System.out;
2 import java.util.Scanner;
3 import java.util.Random;
4
5 public class GuessingGame {
6     public static void main(String args[]) {
7         Scanner keyboard = new Scanner(System.in);
8         out.print("Enter an int from 1 to 10: ");
9         int inputNumber = keyboard.nextInt();
10        int randomNumber = new Random().nextInt(10) + 1;
11
12        if (inputNumber == randomNumber) {
13            out.println("*****");
14            out.println("You win.");
15            out.println("*****");
16        } else {
17            out.println("You lose.");
18            out.print("The random number was ");
19            out.println(randomNumber + ".");
20        }
21        out.println("Thank you for playing.");
22        keyboard.close();
23    }
24 }
```

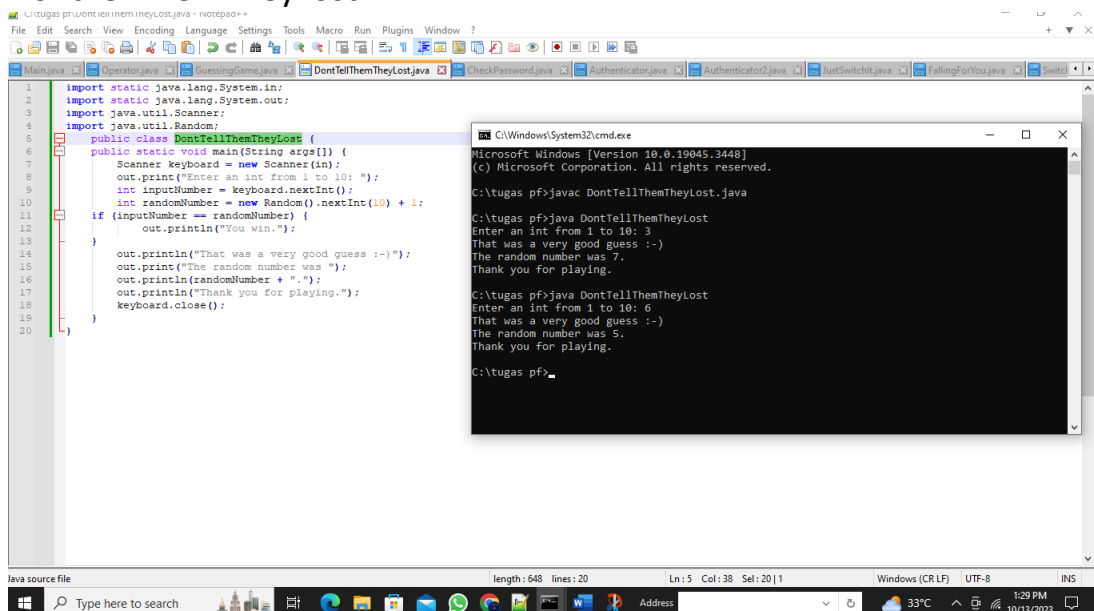
```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\tugas pf>javac GuessingGame.java

C:\tugas pf>java GuessingGame
Enter an int from 1 to 10: 3
You lose.
The random number was 8.
Thank you for playing.

C:\tugas pf>
```

2. DontTellThemTheyLost



```
1 import static java.lang.System.in;
2 import static java.lang.System.out;
3 import java.util.Scanner;
4 import java.util.Random;
5
6 public class DontTellThemTheyLost {
7     public static void main(String args[]) {
8         Scanner keyboard = new Scanner(in);
9         out.print("Enter an int from 1 to 10: ");
10        int inputNumber = keyboard.nextInt();
11        int randomNumber = new Random().nextInt(10) + 1;
12
13        if (inputNumber == randomNumber) {
14            out.println("You win.");
15        }
16        out.println("That was a very good guess :-)");
17        out.print("The random number was ");
18        out.println(randomNumber + ".");
19        out.println("Thank you for playing.");
20        keyboard.close();
21    }
22 }
```

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

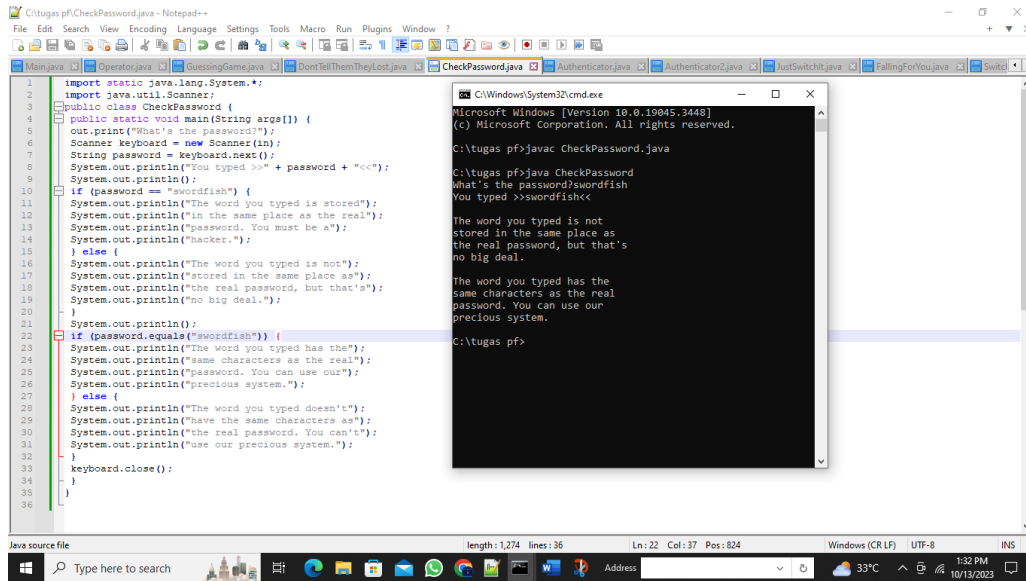
C:\tugas pf>javac DontTellThemTheyLost.java

C:\tugas pf>java DontTellThemTheyLost
Enter an int from 1 to 10: 3
That was a very good guess :-)
The random number was 7.
Thank you for playing.

C:\tugas pf>java DontTellThemTheyLost
Enter an int from 1 to 10: 6
That was a very good guess :-)
The random number was 5.
Thank you for playing.

C:\tugas pf>
```

3. CheckPassword



The screenshot shows a Java IDE with the file `C:\tugas pf\CheckPassword.java` open. The code is as follows:

```
1 import static java.lang.System.*;
2 import java.util.Scanner;
3 public class CheckPassword {
4     public static void main(String args[]) {
5         out.print("What's the password?");
6         Scanner keyboard = new Scanner(in);
7         String password = keyboard.next();
8         System.out.println("You typed >>" + password + "<<");
9         System.out.println();
10        if (password == "swordfish") {
11            System.out.println("The word you typed is stored");
12            System.out.println("in the same place as the real");
13            System.out.println("password. You must be a");
14            System.out.println("hacker.");
15        } else {
16            System.out.println("The word you typed is not");
17            System.out.println("stored in the same place as");
18            System.out.println("the real password, but that's");
19            System.out.println("no big deal.");
20        }
21        System.out.println();
22        if (password.equals("swordfish")) {
23            System.out.println("The word you typed has the");
24            System.out.println("same characters as the real");
25            System.out.println("password. You can use our");
26            System.out.println("precious system.");
27        } else {
28            System.out.println("The word you typed doesn't");
29            System.out.println("have the same characters as");
30            System.out.println("the real password. You can't");
31            System.out.println("use our precious system.");
32        }
33        keyboard.close();
34    }
35 }
36
```

The command prompt shows the following execution:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

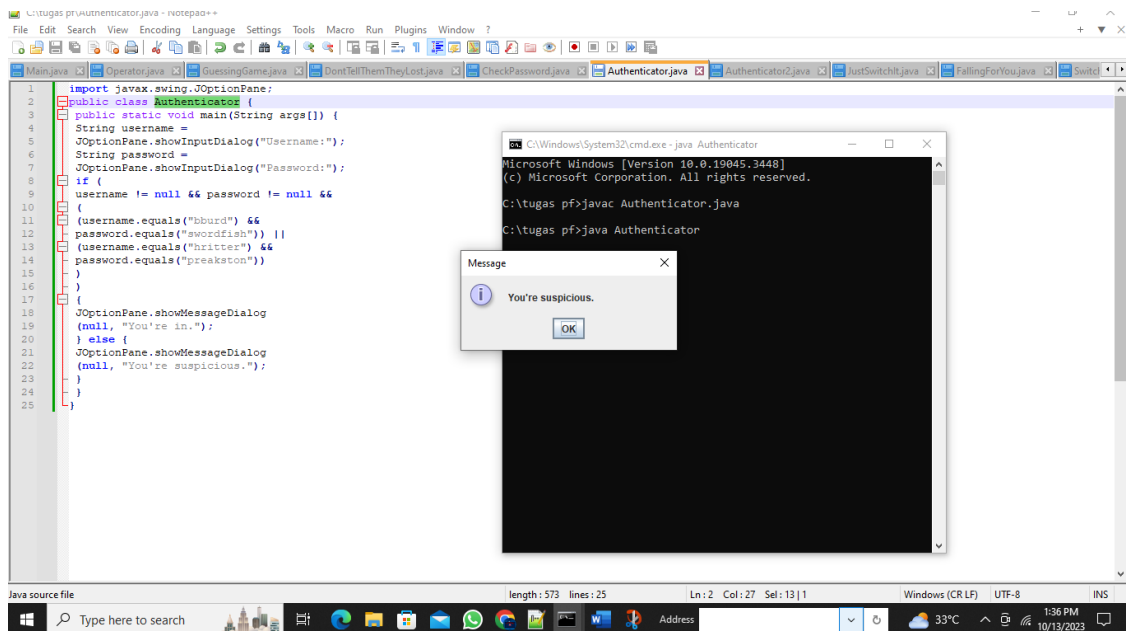
C:\tugas pf>javac CheckPassword.java
C:\tugas pf>java CheckPassword
What's the password?swordfish
You typed >>swordfish<<

The word you typed is not
stored in the same place as
the real password, but that's
no big deal.

The word you typed has the
same characters as the real
password. You can use our
precious system.

C:\tugas pf>
```

4. Authenticator



The screenshot shows a Java IDE with the file `C:\tugas pf\authenticator.java` open. The code is as follows:

```
1 import javax.swing.JOptionPane;
2 public class Authenticator {
3     public static void main(String args[]) {
4         String username =
5         JOptionPane.showInputDialog("Username:");
6         String password =
7         JOptionPane.showInputDialog("Password:");
8         if (
9             username != null && password != null &&
10            (username.equals("bburd") &&
11             password.equals("swordfish")) ||
12            (username.equals("hritter") &&
13             password.equals("breakston"))
14        ) {
15        }
16        {
17        }
18        JOptionPane.showMessageDialog
19        (null, "You're in.");
20        } else {
21        JOptionPane.showMessageDialog
22        (null, "You're suspicious.");
23        }
24    }
25 }

```

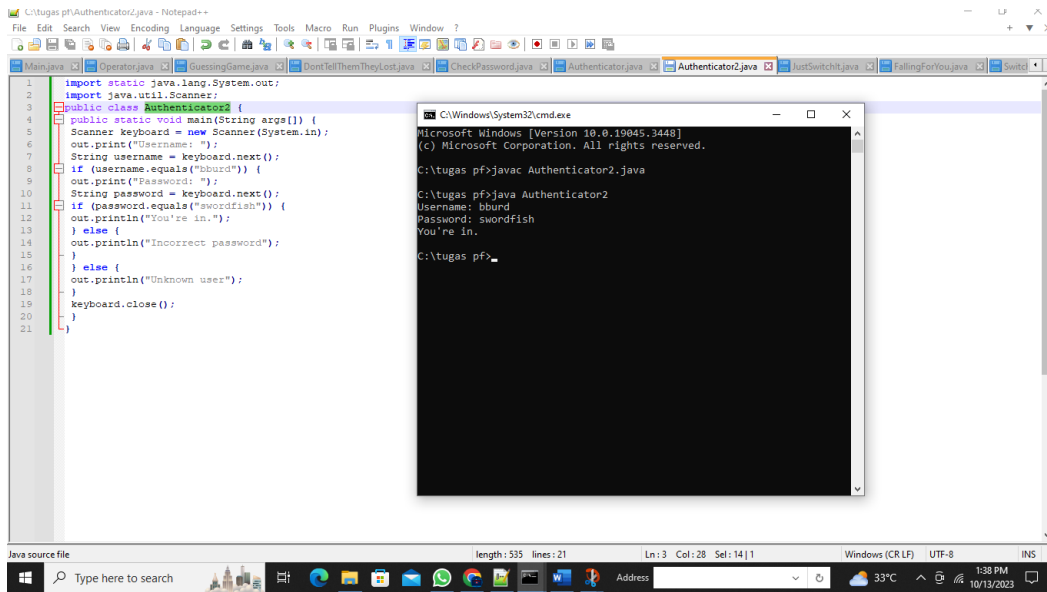
The command prompt shows the following execution:

```
C:\Windows\System32\cmd.exe - java Authenticator
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\tugas pf>javac Authenticator.java
C:\tugas pf>java Authenticator
```

A message dialog box is displayed with the text: "You're suspicious." and an "OK" button.

5. Authenticator2



The screenshot shows a Notepad++ window with the code for `Authenticator2.java`. The code uses a `Scanner` to read user input for a username and password, then checks if the password is "swordfish". If correct, it prints "You're in."; otherwise, it prints "Incorrect password" or "Unknown user".

```
1 import static java.lang.System.out;
2 import java.util.Scanner;
3 public class Authenticator2 {
4     public static void main(String args[]) {
5         Scanner keyboard = new Scanner(System.in);
6         out.print("Username: ");
7         String username = keyboard.next();
8         if (username.equals("bburd")) {
9             out.print("Password: ");
10            String password = keyboard.next();
11            if (password.equals("swordfish")) {
12                out.println("You're in.");
13            } else {
14                out.println("Incorrect password");
15            }
16        } else {
17            out.println("Unknown user");
18        }
19        keyboard.close();
20    }
21 }
```

A Windows command prompt window is open, showing the execution of the program:

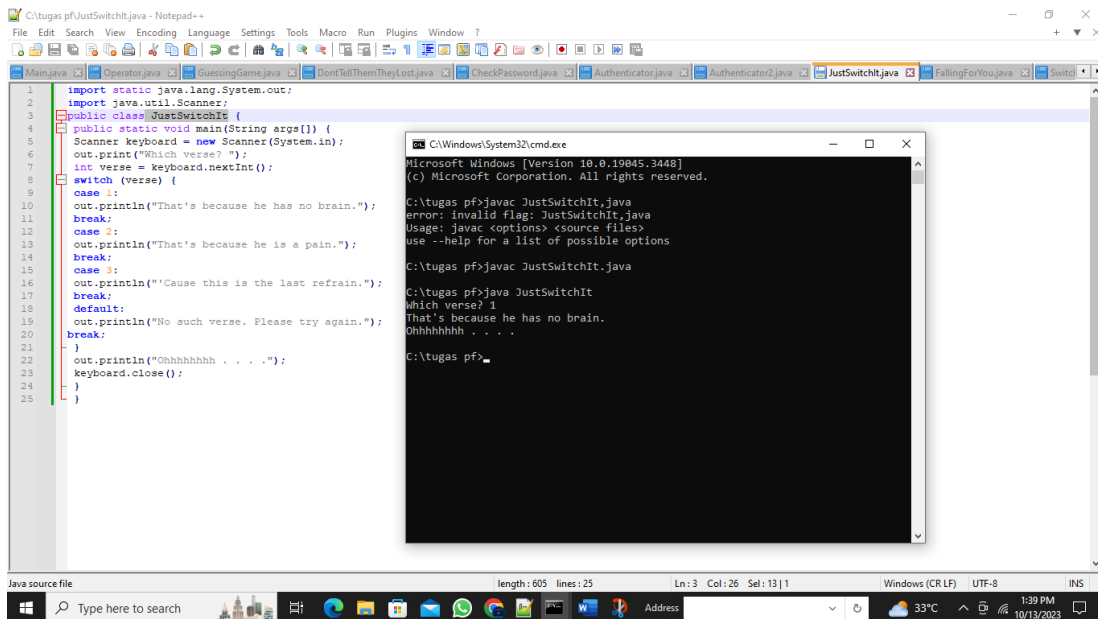
```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\tugas pf>javac Authenticator2.java

C:\tugas pf>java Authenticator2
Username: bburd
Password: swordfish
You're in.

C:\tugas pf>
```

6. JustSwitchIt



The screenshot shows a Notepad++ window with the code for `JustSwitchIt.java`. The code uses a `Scanner` to read a verse number, then uses a `switch` statement to print different responses based on the verse number.

```
1 import static java.lang.System.out;
2 import java.util.Scanner;
3 public class JustSwitchIt {
4     public static void main(String args[]) {
5         Scanner keyboard = new Scanner(System.in);
6         out.print("Which verse? ");
7         int verse = keyboard.nextInt();
8         switch (verse) {
9             case 1:
10                out.println("That's because he has no brain.");
11                break;
12             case 2:
13                out.println("That's because he is a pain.");
14                break;
15             case 3:
16                out.println("Cause this is the last refrain.");
17                break;
18             default:
19                out.println("No such verse. Please try again.");
20                break;
21        }
22        out.println("Ohhhhhhhh . . .");
23        keyboard.close();
24    }
25 }
```

A Windows command prompt window is open, showing the execution of the program:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

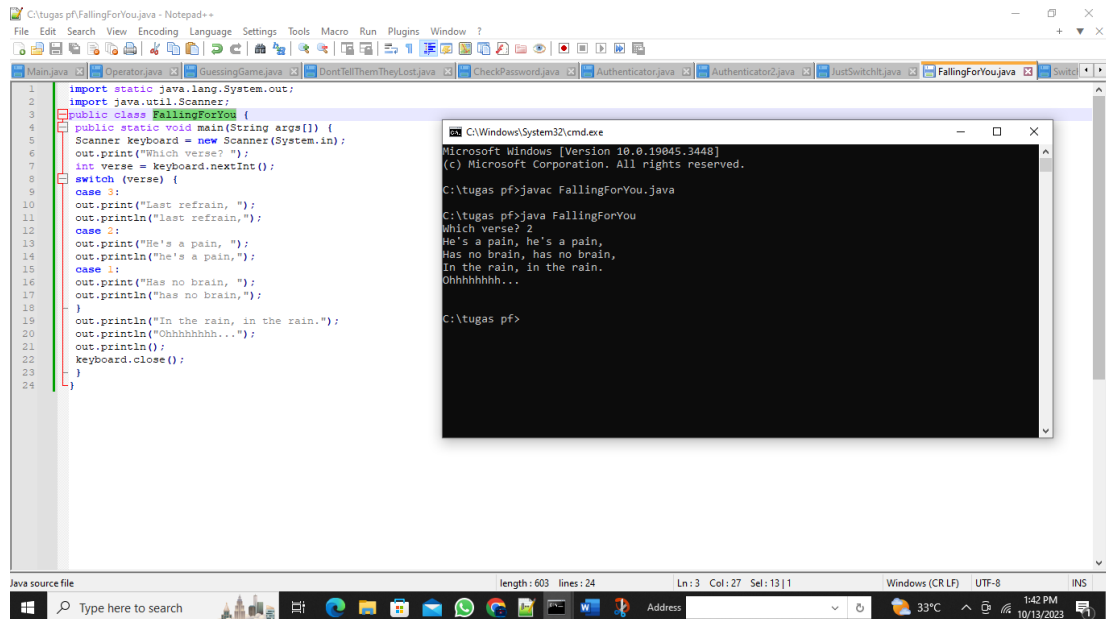
C:\tugas pf>javac JustSwitchIt.java
error: invalid flag: JustSwitchIt.java
Usage: javac <options> <source files>
use --help for a list of possible options

C:\tugas pf>java JustSwitchIt

C:\tugas pf>java JustSwitchIt
Which verse? 1
That's because he has no brain.
Ohhhhhhhh . . .

C:\tugas pf>
```

7. FallingForYou



The screenshot shows a Java IDE with the file `FallingForYou.java` open. The code is as follows:

```
1 import static java.lang.System.out;
2 import java.util.Scanner;
3 public class FallingForYou {
4     public static void main(String args[]) {
5         Scanner keyboard = new Scanner(System.in);
6         out.print("Which verse? ");
7         int verse = keyboard.nextInt();
8         switch (verse) {
9             case 3:
10                out.print("Last refrain, ");
11                out.println("last refrain,");
12             case 2:
13                out.print("He's a pain, ");
14                out.println("he's a pain,");
15             case 1:
16                out.print("Has no brain, ");
17                out.println("has no brain,");
18            }
19            out.println("In the rain, in the rain.");
20            out.println("Ohhhhhhhh...");
21            out.println();
22            keyboard.close();
23        }
24    }
```

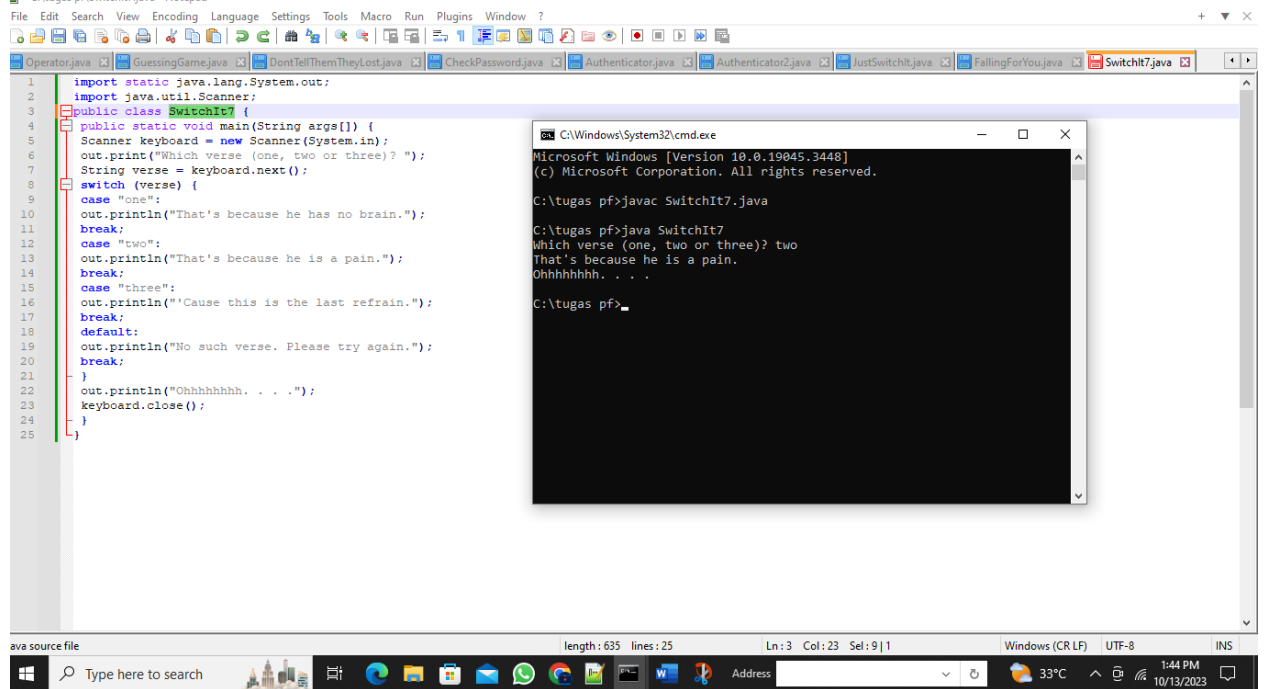
The output window shows the following execution:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\tugas pf>javac FallingForYou.java
C:\tugas pf>java FallingForYou
Which verse? 2
He's a pain, he's a pain,
Has no brain, has no brain,
In the rain, in the rain.
Ohhhhhhhh...

C:\tugas pf>
```

8. SwitchIt7



The screenshot shows a Java IDE with the file `SwitchIt7.java` open. The code is as follows:

```
1 import static java.lang.System.out;
2 import java.util.Scanner;
3 public class SwitchIt7 {
4     public static void main(String args[]) {
5         Scanner keyboard = new Scanner(System.in);
6         out.print("Which verse (one, two or three)? ");
7         String verse = keyboard.next();
8         switch (verse) {
9             case "one":
10                out.println("That's because he has no brain.");
11                break;
12             case "two":
13                out.println("That's because he is a pain.");
14                break;
15             case "three":
16                out.println("'Cause this is the last refrain.");
17                break;
18             default:
19                out.println("No such verse. Please try again.");
20                break;
21            }
22            out.println("Ohhhhhhhh. . .");
23            keyboard.close();
24        }
25    }
```

The output window shows the following execution:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\tugas pf>javac SwitchIt7.java
C:\tugas pf>java SwitchIt7
Which verse (one, two or three)? two
That's because he is a pain.
Ohhhhhhhh. . .

C:\tugas pf>
```