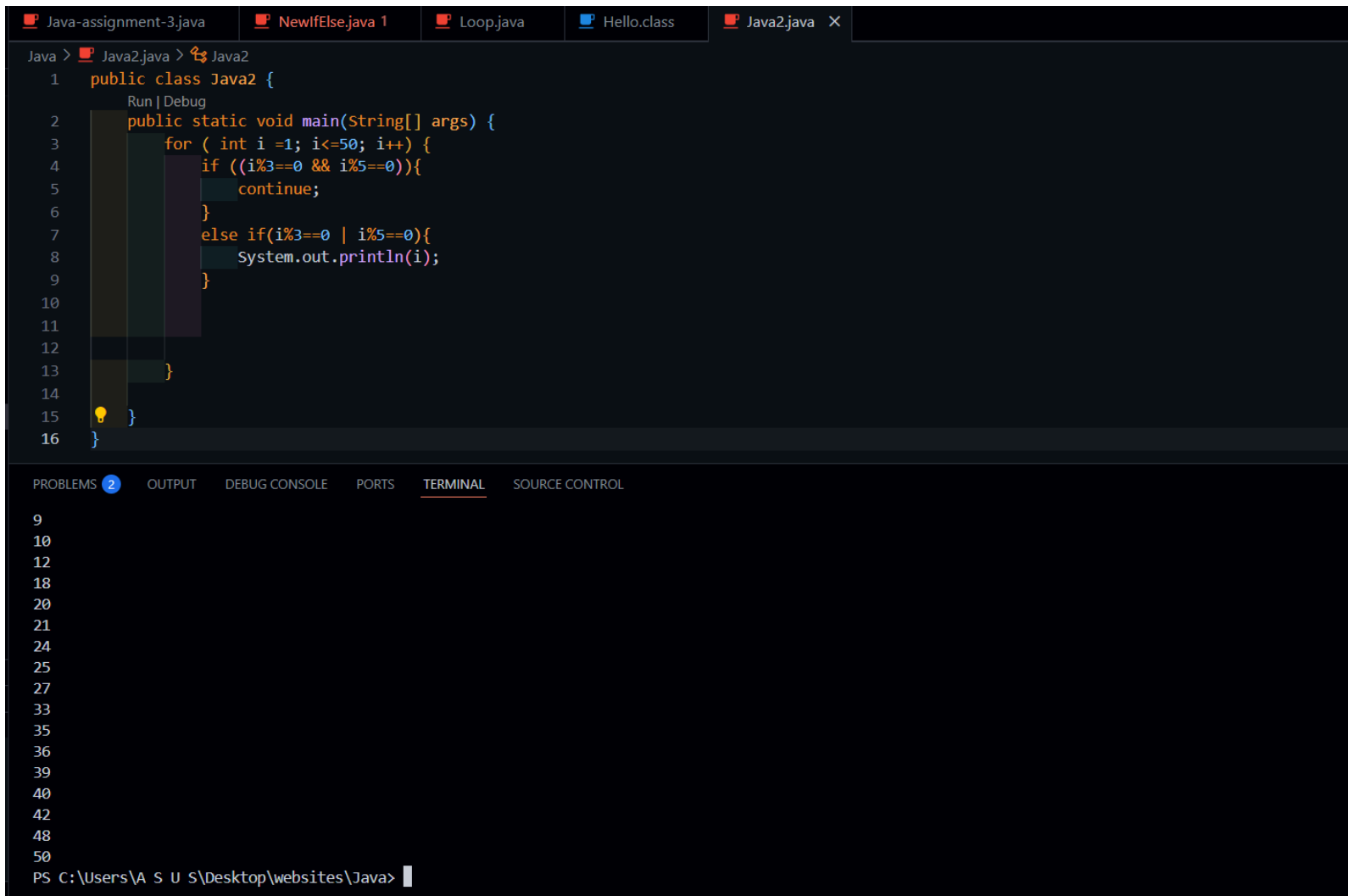


1. Write a Java program using a for loop and if statement to print all numbers between 1 and 50 that are divisible by either 3 or 5, but not both.



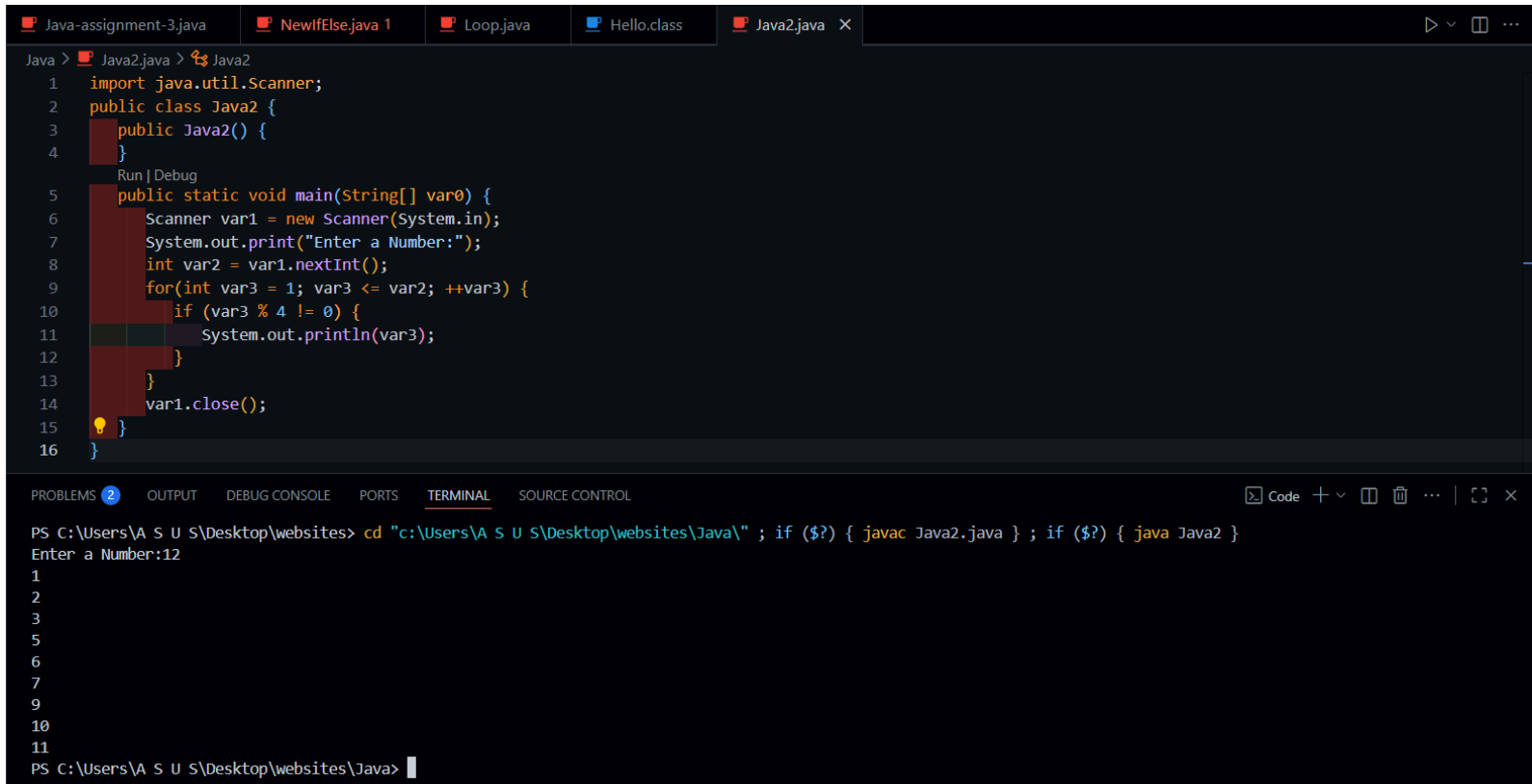
The screenshot shows an IDE with a Java program in the editor and its output in the terminal. The program is designed to print numbers between 1 and 50 that are divisible by either 3 or 5, but not both. The terminal output shows the numbers 9, 10, 12, 18, 20, 21, 24, 25, 27, 33, 35, 36, 39, 40, 42, 48, and 50.

```
Java > Java2.java > Java2
1 public class Java2 {
2     Run | Debug
3     public static void main(String[] args) {
4         for ( int i =1; i<=50; i++) {
5             if ((i%3==0 && i%5==0)){
6                 continue;
7             }
8             else if(i%3==0 | i%5==0){
9                 System.out.println(i);
10            }
11        }
12    }
13 }
14
15
16 }
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE PORTS TERMINAL SOURCE CONTROL

```
9
10
12
18
20
21
24
25
27
33
35
36
39
40
42
48
50
PS C:\Users\A S U S\Desktop\websites\Java>
```

2. Write a Java program that takes a number from the user and prints all numbers from 1 to that number, but skips printing multiples of 4 using an if condition inside a for loop.

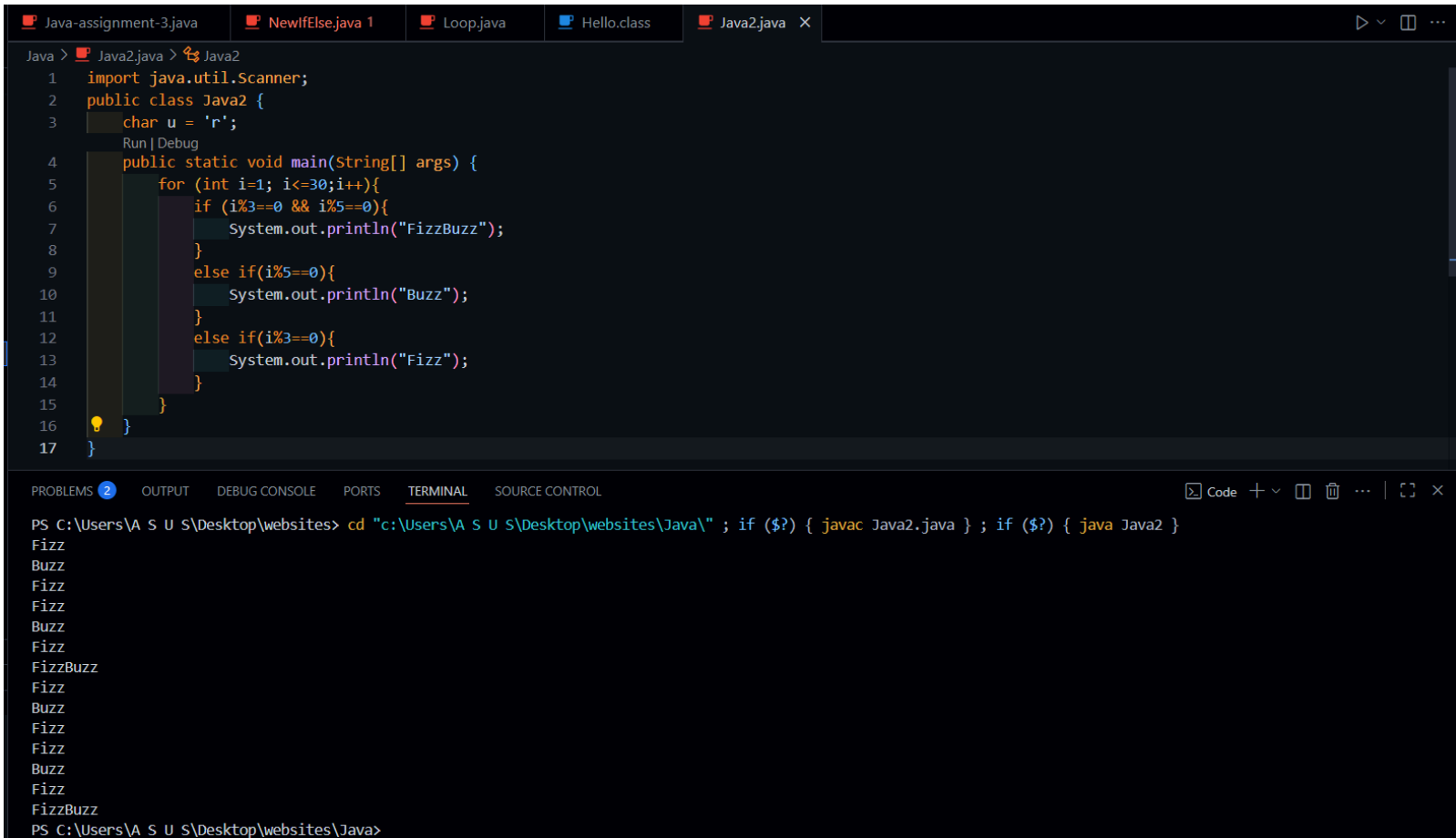


The screenshot shows an IDE with a Java file named `Java2.java` open. The code defines a `Java2` class with a `main` method. The `main` method uses a `Scanner` to read an integer from the user, then iterates from 1 to that integer using a `for` loop. Inside the loop, an `if` statement checks if the current number is not a multiple of 4 (`var3 % 4 != 0`), and if so, prints the number. The IDE's terminal shows the program being compiled and run, with the user entering the number 12. The output displays the numbers 1 through 12, skipping the multiples of 4 (4, 8, and 12).

```
Java > Java2.java > Java2
1  import java.util.Scanner;
2  public class Java2 {
3      public Java2() {
4      }
5      public static void main(String[] var0) {
6          Scanner var1 = new Scanner(System.in);
7          System.out.print("Enter a Number:");
8          int var2 = var1.nextInt();
9          for(int var3 = 1; var3 <= var2; ++var3) {
10             if (var3 % 4 != 0) {
11                 System.out.println(var3);
12             }
13         }
14         var1.close();
15     }
16 }
```

```
PS C:\Users\A S U S\Desktop\websites> cd "c:\Users\A S U S\Desktop\websites\Java\" ; if ($?) { javac Java2.java } ; if ($?) { java Java2 }
Enter a Number:12
1
2
3
5
6
7
9
10
11
PS C:\Users\A S U S\Desktop\websites\Java>
```

3. Write a Java program using a for loop and if statements to print “Fizz” for numbers divisible by 3, “Buzz” for numbers divisible by 5, and “FizzBuzz” for numbers divisible by both, between 1 and 30.



The screenshot shows an IDE with a Java file named `Java2.java` open. The code implements a FizzBuzz program. The `main` method uses a `for` loop from 1 to 30. Inside the loop, it checks if the number is divisible by both 3 and 5 (FizzBuzz), then by 5 (Buzz), and finally by 3 (Fizz). The IDE interface includes tabs for other files like `Java-assignment-3.java`, `NewIfElse.java 1`, `Loop.java`, `Hello.class`, and `Java2.java`. The bottom panel shows the `TERMINAL` output, which displays the sequence of FizzBuzz results for numbers 1 through 30.

```
Java > Java2.java > Java2
1  import java.util.Scanner;
2  public class Java2 {
3      char u = 'r';
4      public static void main(String[] args) {
5          for (int i=1; i<=30;i++){
6              if (i%3==0 && i%5==0){
7                  System.out.println("FizzBuzz");
8              }
9              else if(i%5==0){
10                 System.out.println("Buzz");
11             }
12             else if(i%3==0){
13                 System.out.println("Fizz");
14             }
15         }
16     }
17 }
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE PORTS TERMINAL SOURCE CONTROL

```
PS C:\Users\A S U S\Desktop\websites> cd "c:\Users\A S U S\Desktop\websites\Java\" ; if ($?) { javac Java2.java } ; if ($?) { java Java2 }
Fizz
Buzz
Fizz
Fizz
Buzz
Fizz
FizzBuzz
Fizz
Buzz
Fizz
Fizz
Buzz
Fizz
FizzBuzz
PS C:\Users\A S U S\Desktop\websites\Java>
```

4. Write a Java program that asks for 10 integers and prints only those that are even and greater than 20 using if and for loops.



The screenshot shows an IDE with a Java file named `Java2.java` open. The code is as follows:

```
1 import java.util.Scanner;
2 public class Java2 {
3     char u = 'r';
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         for (int i = 1; i<=10;i++){
7             System.out.print("Enter an Integer:");
8             int num = sc.nextInt();
9             if (num%2==0 & num>20){
10                 System.out.println(num);
11             }
12         }
13         sc.close();
14     }
15 }
```

The IDE's terminal window shows the following output:

```
PS C:\Users\A S U S\Desktop\websites> cd "c:\Users\A S U S\Desktop\websites\Java\" ; if ($?) { javac Java2.java } ; if ($?) { java Java2 }
Enter an Integer:12
Enter an Integer:23
Enter an Integer:22
22
Enter an Integer:
```

5. Write a Java program that prints the sum of even numbers and the product of odd numbers between 1 and 10 using a for loop and if condition.



The screenshot shows an IDE with a Java file named `Java2.java` open. The code is as follows:

```
1 public class Java2 {  
2     public static void main(String[] args) {  
3         int evenNum = 0;  
4         int oddNum = 1;  
5         for(int i=1; i<10; i++){  
6             if (i%2==0){  
7                 evenNum+=i;  
8             }  
9             else{  
10                oddNum*=i;  
11            }  
12        }  
13        System.out.println("EvenNum_sum= "+evenNum);  
14        System.out.println("OddNum_Product= "+oddNum);  
15    }  
16 }  
17 }
```

The IDE's terminal window shows the following output:

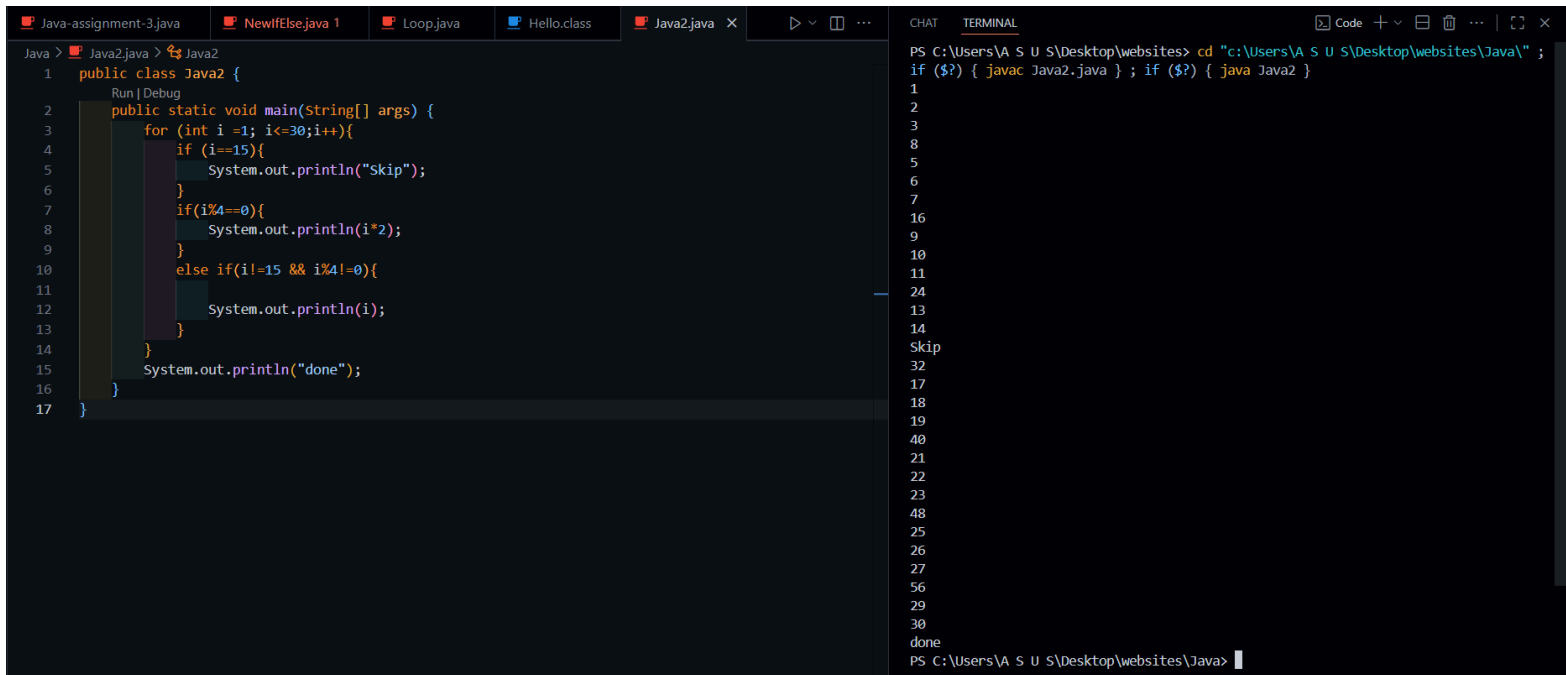
```
PS C:\Users\A S U S\Desktop\websites> cd "c:\Users\A S U S\Desktop\websites\Java\" ; if ($?) { javac Java2.java } ; if ($?) { java Java2 }  
EvenNum_sum= 20  
OddNum_Product= 945  
PS C:\Users\A S U S\Desktop\websites\Java>
```

6. Write a Java program using a for loop that prints numbers from 1 to 30, but:

Prints "skip" instead of 15,

Doubles any number divisible by 4 before printing,

And prints "done" at the end.



The screenshot shows an IDE with a Java file named `Java2.java` and a terminal window. The Java code is as follows:

```
1 public class Java2 {  
2     public static void main(String[] args) {  
3         for (int i = 1; i <= 30; i++) {  
4             if (i == 15) {  
5                 System.out.println("Skip");  
6             }  
7             if (i % 4 == 0) {  
8                 System.out.println(i * 2);  
9             }  
10            else if (i != 15 && i % 4 != 0) {  
11                System.out.println(i);  
12            }  
13        }  
14        System.out.println("done");  
15    }  
16 }  
17 }
```

The terminal window shows the output of the program:

```
PS C:\Users\A S U S\Desktop\websites> cd "C:\Users\A S U S\Desktop\websites\Java\" ;  
if ($?) { javac Java2.java } ; if ($?) { java Java2 }  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
Skip  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
done  
PS C:\Users\A S U S\Desktop\websites\Java>
```

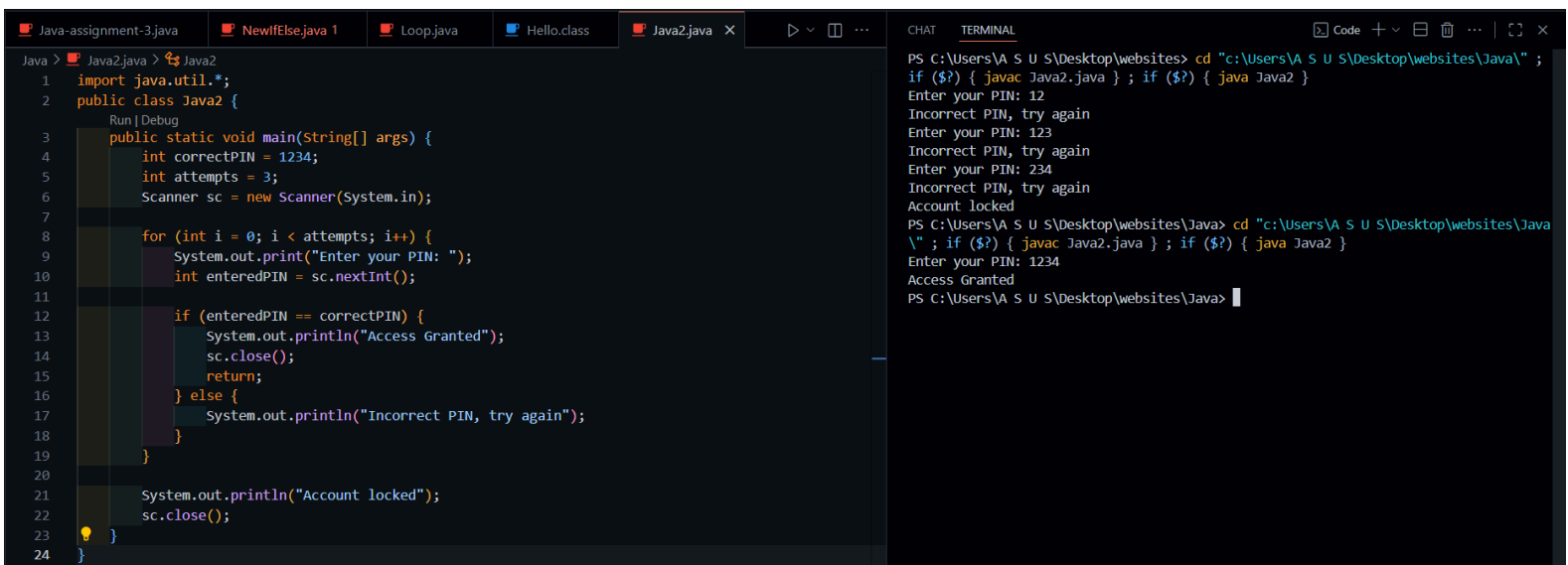
7. Write a Java program that simulates an ATM PIN verification system.

The program should have a correct PIN stored (for example, 1234) and allow the user up to three attempts to enter the correct PIN.

If the user enters the correct PIN, print "Access Granted" and stop the program.

If the user enters the wrong PIN, print "Incorrect PIN, try again".

After three incorrect attempts, print "Account locked".



```
Java > Java2.java > Java2
1  import java.util.*;
2  public class Java2 {
3      public static void main(String[] args) {
4          int correctPIN = 1234;
5          int attempts = 3;
6          Scanner sc = new Scanner(System.in);
7
8          for (int i = 0; i < attempts; i++) {
9              System.out.print("Enter your PIN: ");
10             int enteredPIN = sc.nextInt();
11
12             if (enteredPIN == correctPIN) {
13                 System.out.println("Access Granted");
14                 sc.close();
15                 return;
16             } else {
17                 System.out.println("Incorrect PIN, try again");
18             }
19         }
20
21         System.out.println("Account locked");
22         sc.close();
23     }
24 }
```

```
PS C:\Users\A S U S\Desktop\websites> cd "c:\Users\A S U S\Desktop\websites\Java\" ;
if ($?) { javac Java2.java } ; if ($?) { java Java2 }
Enter your PIN: 12
Incorrect PIN, try again
Enter your PIN: 123
Incorrect PIN, try again
Enter your PIN: 234
Incorrect PIN, try again
Account locked
PS C:\Users\A S U S\Desktop\websites\Java> cd "c:\Users\A S U S\Desktop\websites\Java\" ;
if ($?) { javac Java2.java } ; if ($?) { java Java2 }
Enter your PIN: 1234
Access Granted
PS C:\Users\A S U S\Desktop\websites\Java>
```