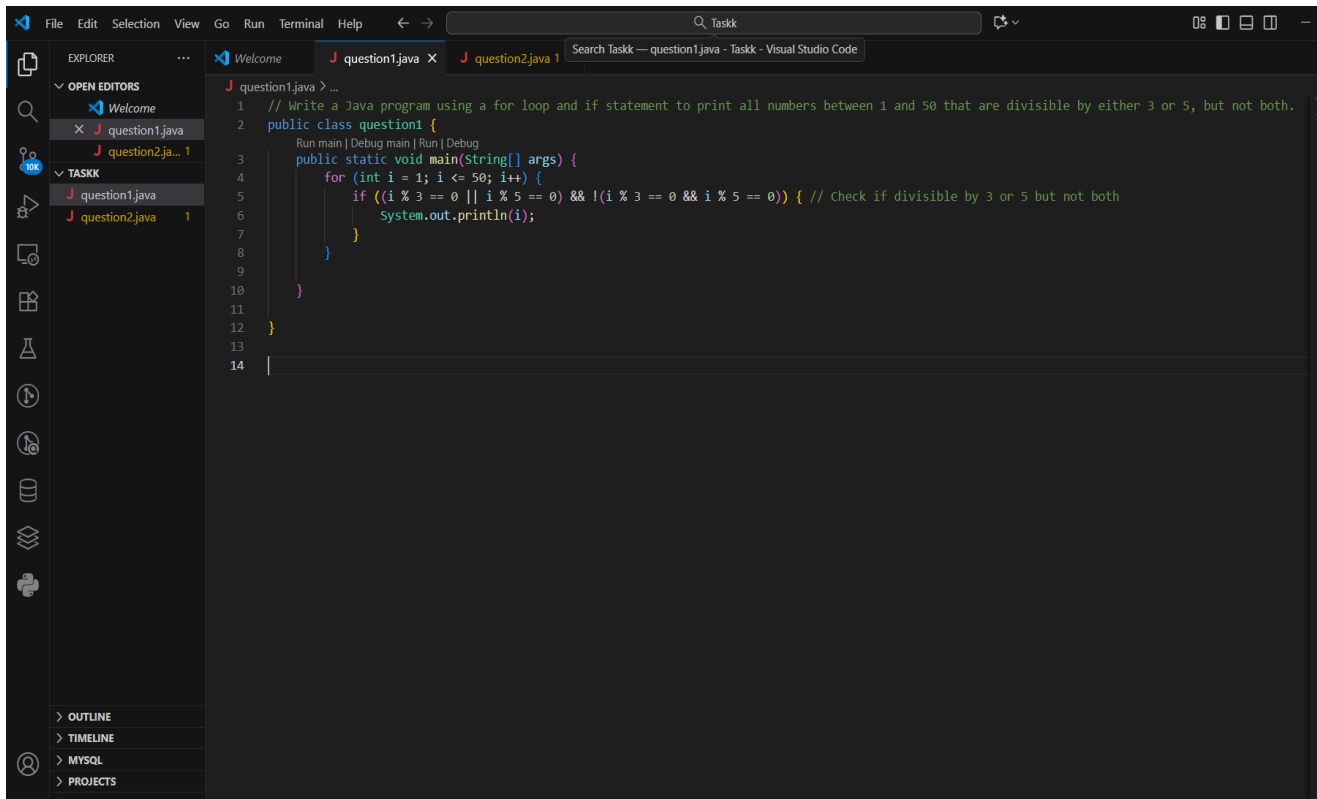


1.

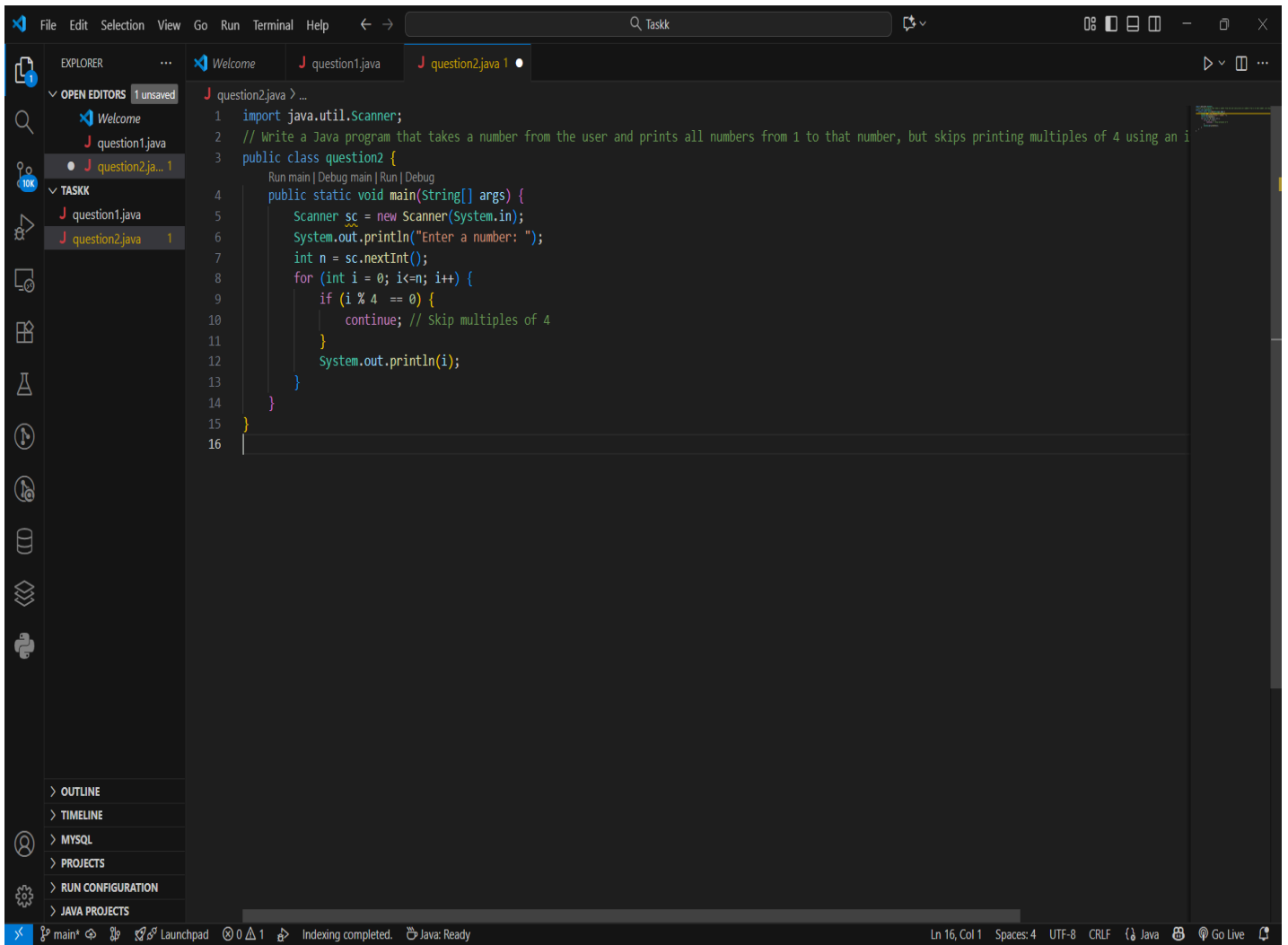


```
1 // Write a Java program using a for loop and if statement to print all numbers between 1 and 50 that are divisible by either 3 or 5, but not both.
2 public class question1 {
3     public static void main(String[] args) {
4         for (int i = 1; i <= 50; i++) {
5             if ((i % 3 == 0 || i % 5 == 0) && !(i % 3 == 0 && i % 5 == 0)) { // Check if divisible by 3 or 5 but not both
6                 System.out.println(i);
7             }
8         }
9     }
10 }
11
12 }
13
14
```

Output:

```
3
5
6
9
10
12
18
20
21
24
25
27
33
35
36
39
40
42
48
50
```

2.

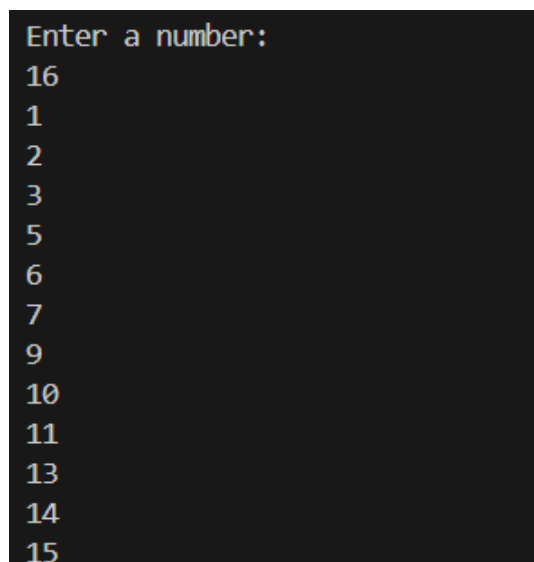


The screenshot shows an IDE with a Java file named `question2.java`. The code is as follows:

```
1 import java.util.Scanner;
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 i
3 public class question2 {
4     Run main | Debug main | Run | Debug
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7         System.out.println("Enter a number: ");
8         int n = sc.nextInt();
9         for (int i = 0; i <= n; i++) {
10             if (i % 4 == 0) {
11                 continue; // Skip multiples of 4
12             }
13             System.out.println(i);
14         }
15     }
16 }
```

The IDE interface includes a sidebar with 'EXPLORER', 'TASKS', 'OUTLINE', 'TIMELINE', 'MYSQL', 'PROJECTS', 'RUN CONFIGURATION', and 'JAVA PROJECTS'. The status bar at the bottom indicates 'Ln 16, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', 'Java', and 'Go Live'.

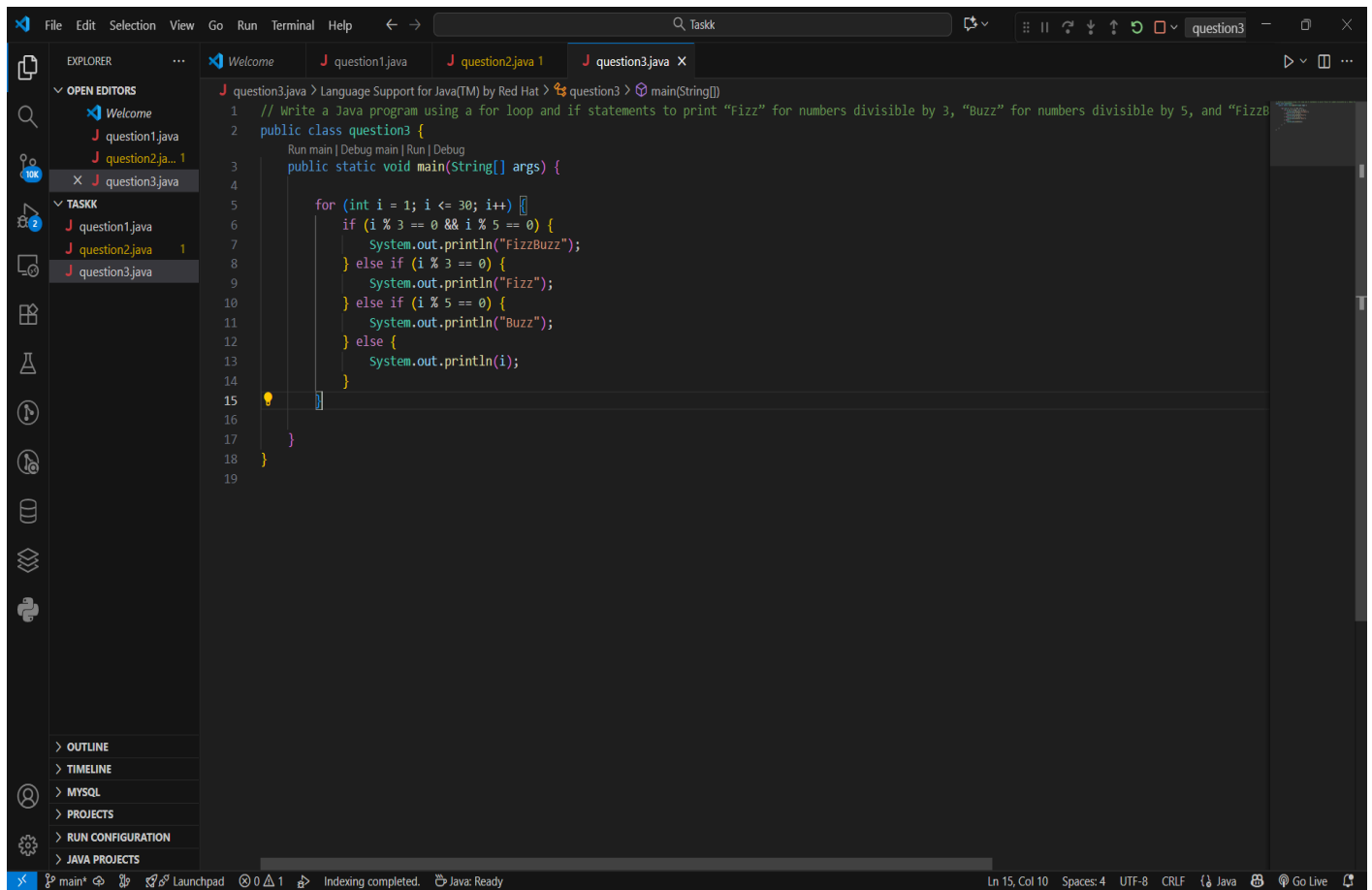
Output:



The output of the program is displayed in a terminal window, showing the prompt "Enter a number:" followed by the numbers 1 through 15, each on a new line. The number 16 is not printed because it is a multiple of 4.

```
Enter a number:
1
2
3
5
6
7
9
10
11
13
14
15
```

3.



The screenshot shows an IDE with a dark theme. The Explorer panel on the left shows a project with files 'question1.java', 'question2.java', and 'question3.java'. The main editor displays 'question3.java' with the following code:

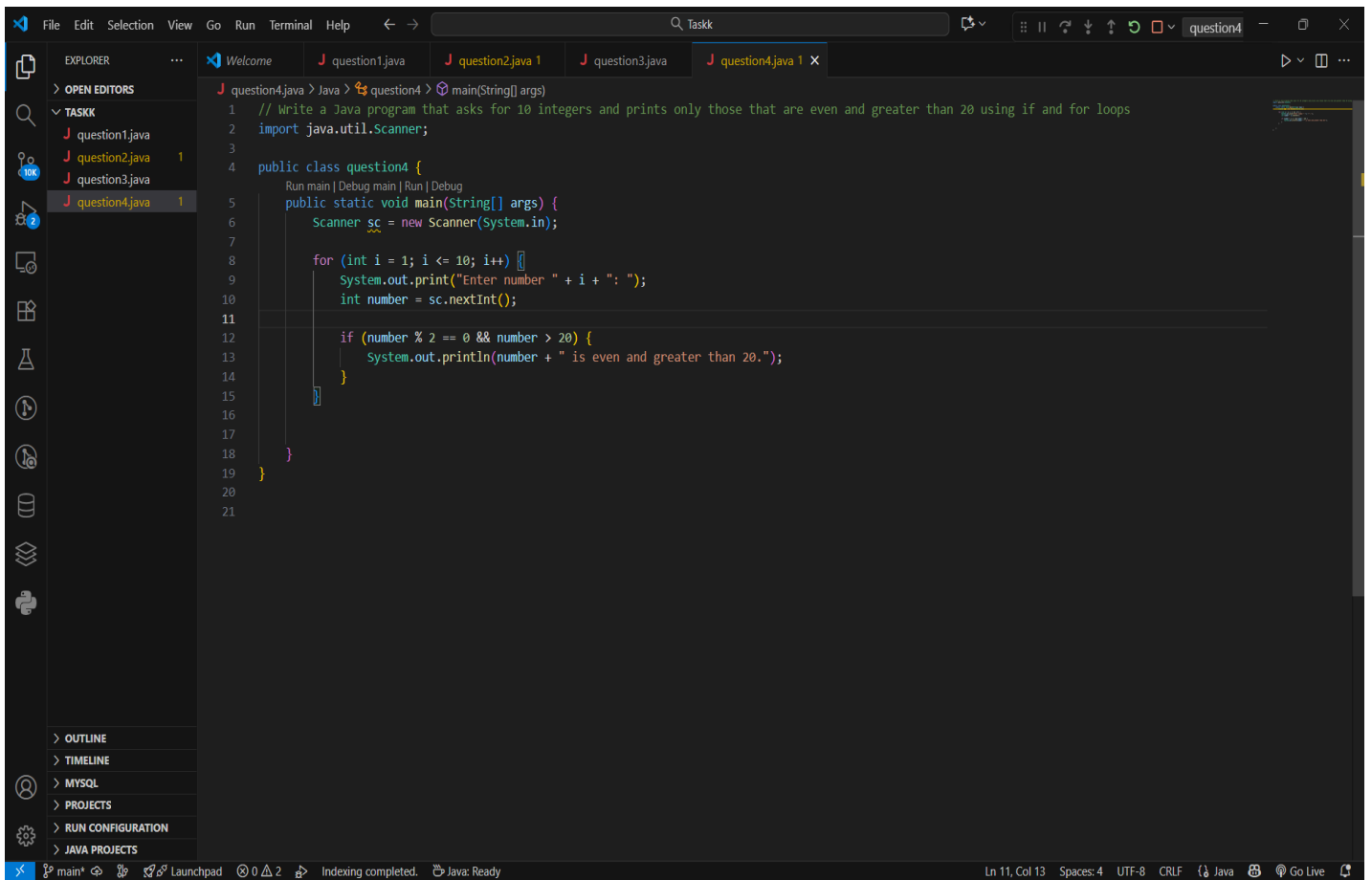
```
1 // Write a Java program using a for loop and if statements to print "Fizz" for numbers divisible by 3, "Buzz" for numbers divisible by 5, and "FizzBuzz" for numbers divisible by both 3 and 5.
2 public class question3 {
3     public static void main(String[] args) {
4
5         for (int i = 1; i <= 30; i++) {
6             if (i % 3 == 0 && i % 5 == 0) {
7                 System.out.println("FizzBuzz");
8             } else if (i % 3 == 0) {
9                 System.out.println("Fizz");
10            } else if (i % 5 == 0) {
11                System.out.println("Buzz");
12            } else {
13                System.out.println(i);
14            }
15        }
16    }
17 }
18
19 }
```

The status bar at the bottom indicates 'Ln 15, Col 10', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Java: Ready'.

Output:

```
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz
16
17
Fizz
19
Buzz
Fizz
22
23
Fizz
Buzz
26
Fizz
28
29
FizzBuzz
```

4.



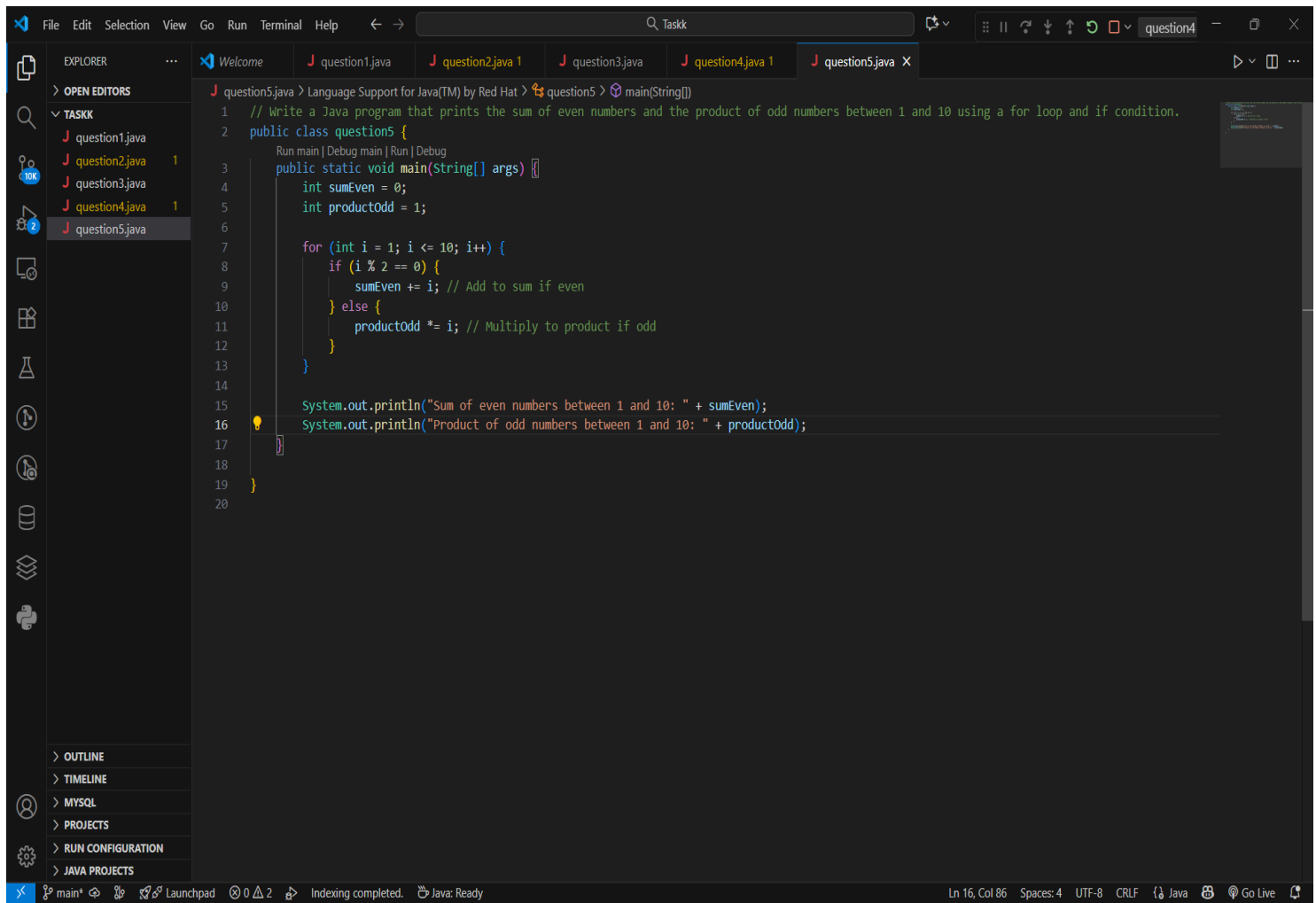
The screenshot shows an IDE with a Java file named `question4.java`. The code is as follows:

```
1 // 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
2 import java.util.Scanner;
3
4 public class question4 {
5     Run main | Debug main | Run | Debug
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8
9         for (int i = 1; i <= 10; i++) {
10             System.out.print("Enter number " + i + ": ");
11             int number = sc.nextInt();
12
13             if (number % 2 == 0 && number > 20) {
14                 System.out.println(number + " is even and greater than 20.");
15             }
16         }
17     }
18 }
19
20
21
```

Output:

```
Enter number 1: 22
22 is even and greater than 20.
Enter number 2: 24
24 is even and greater than 20.
Enter number 3: 23
Enter number 4: 28
28 is even and greater than 20.
Enter number 5: 24
24 is even and greater than 20.
Enter number 6: 15
Enter number 7: 12
Enter number 8: 14
Enter number 9: 16
Enter number 10: 22
22 is even and greater than 20.
```

5.



The screenshot shows an IDE with a Java file named `question5.java`. The code is as follows:

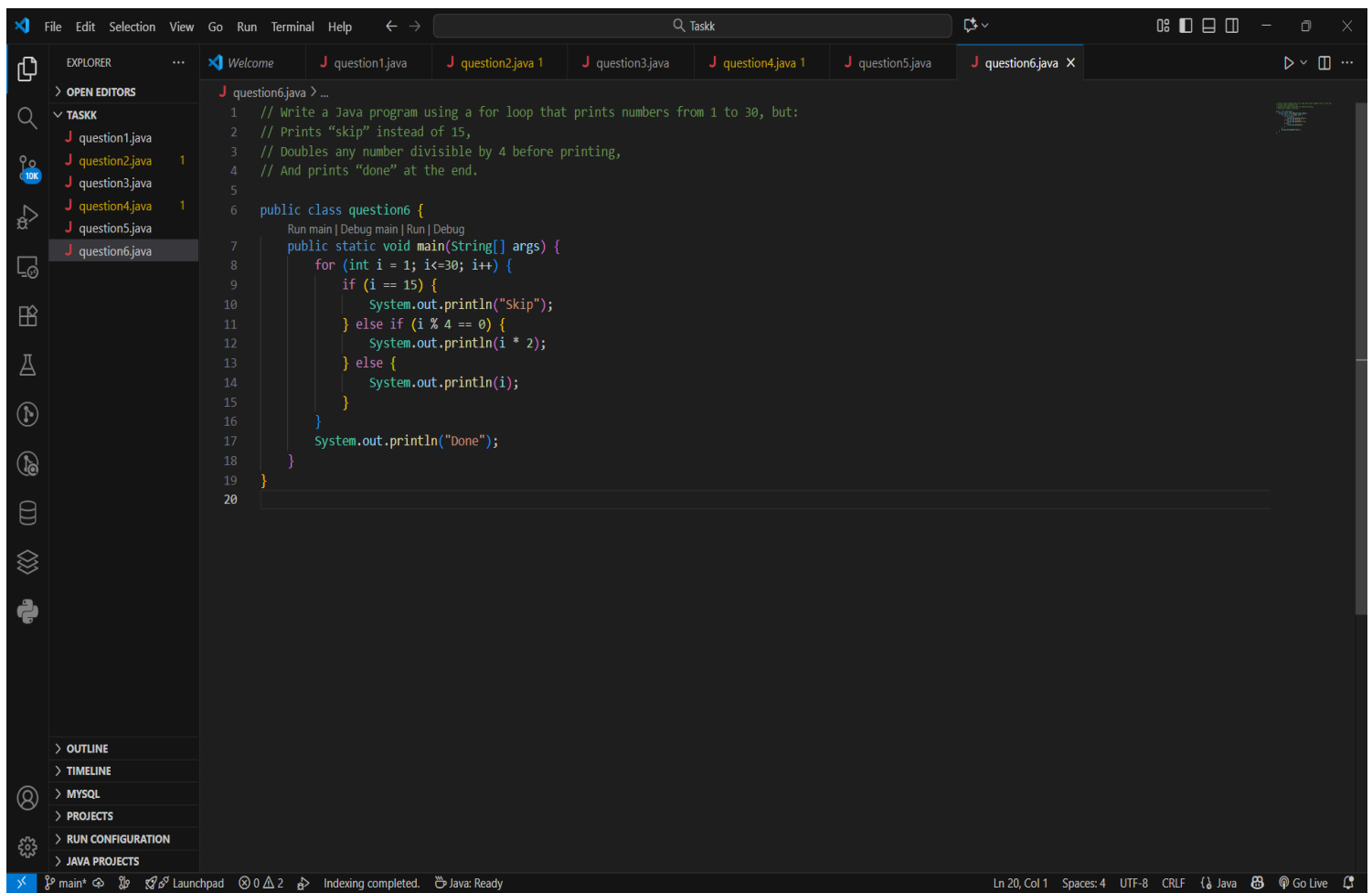
```
1 // Write a Java program that prints the sum of even numbers and the product of odd numbers between 1 and 10 using a for loop and if condition.
2 public class question5 {
3     public static void main(String[] args) {
4         int sumEven = 0;
5         int productOdd = 1;
6
7         for (int i = 1; i <= 10; i++) {
8             if (i % 2 == 0) {
9                 sumEven += i; // Add to sum if even
10            } else {
11                productOdd *= i; // Multiply to product if odd
12            }
13        }
14
15        System.out.println("Sum of even numbers between 1 and 10: " + sumEven);
16        System.out.println("Product of odd numbers between 1 and 10: " + productOdd);
17    }
18 }
19
20
```

The IDE interface includes a sidebar with a 'TASKS' section listing `question1.java` through `question5.java`. The bottom status bar shows 'Ln 16, Col 86', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Java: Ready'.

Output:

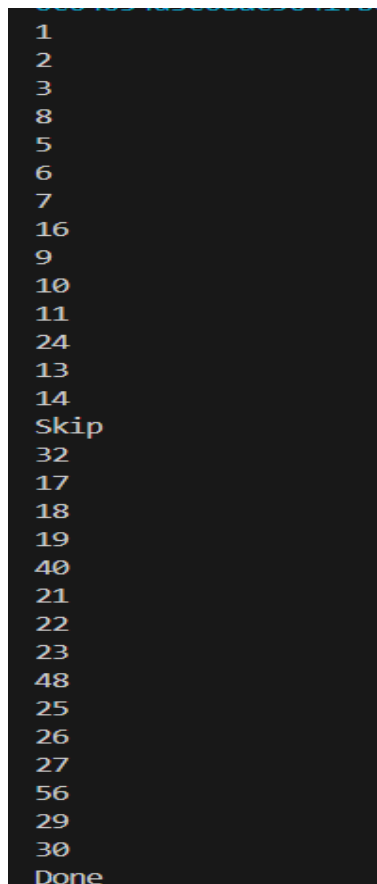
```
Sum of even numbers between 1 and 10: 30
Product of odd numbers between 1 and 10: 945
```

6.



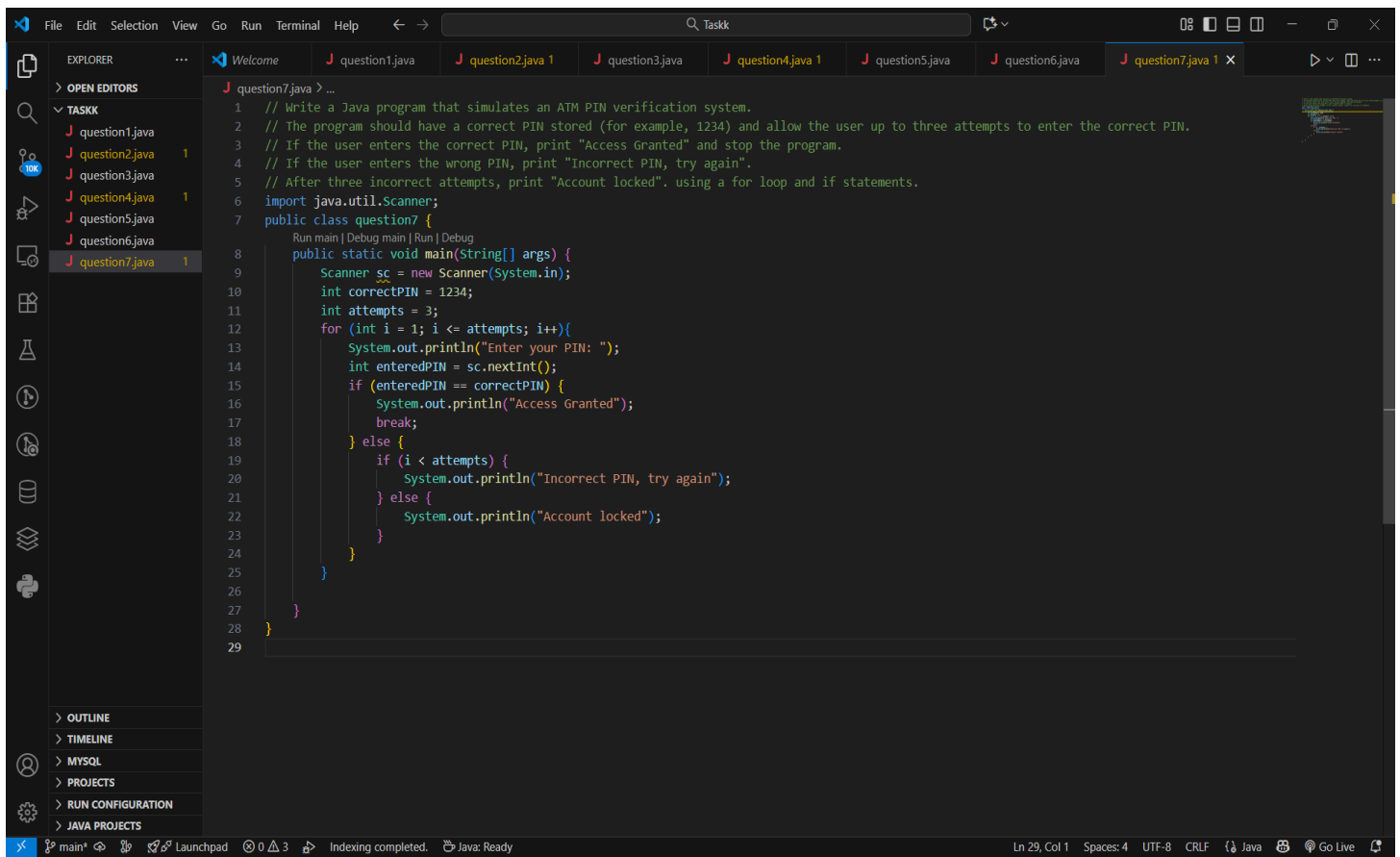
```
1 // Write a Java program using a for loop that prints numbers from 1 to 30, but:
2 // Prints "skip" instead of 15,
3 // Doubles any number divisible by 4 before printing,
4 // And prints "done" at the end.
5
6 public class question6 {
7     public static void main(String[] args) {
8         for (int i = 1; i<=30; i++) {
9             if (i == 15) {
10                 System.out.println("Skip");
11             } else if (i % 4 == 0) {
12                 System.out.println(i * 2);
13             } else {
14                 System.out.println(i);
15             }
16         }
17         System.out.println("Done");
18     }
19 }
20
```

Output:



```
1
2
3
8
5
6
7
16
9
10
11
24
13
14
Skip
32
17
18
19
40
21
22
23
48
25
26
27
56
29
30
Done
```

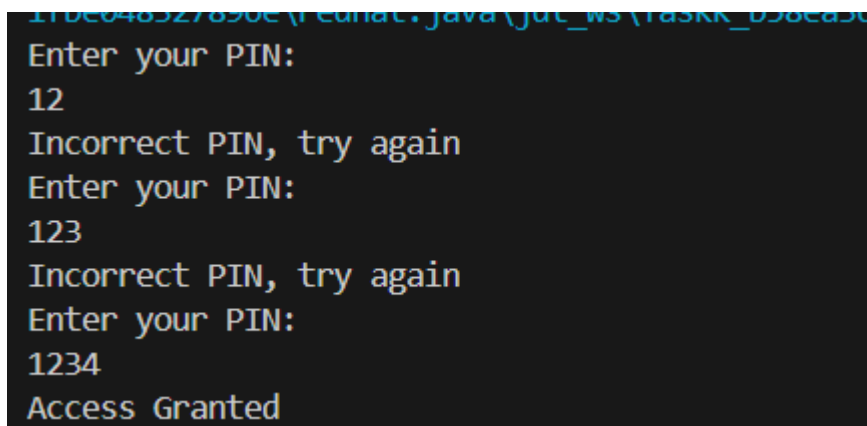
7.



The screenshot shows an IDE with a dark theme. The Explorer panel on the left lists several Java files, with 'question7.java' selected. The main editor displays the code for 'question7.java'. The code is a Java program that simulates an ATM PIN verification system. It includes comments explaining the requirements: a correct PIN (1234) is stored, and the user has up to three attempts to enter it. If the correct PIN is entered, 'Access Granted' is printed. If an incorrect PIN is entered, 'Incorrect PIN, try again' is printed. If three incorrect attempts are made, 'Account locked' is printed. The code uses a Scanner for input and a for loop to limit the number of attempts.

```
1 // Write a Java program that simulates an ATM PIN verification system.
2 // The program should have a correct PIN stored (for example, 1234) and allow the user up to three attempts to enter the correct PIN.
3 // If the user enters the correct PIN, print "Access Granted" and stop the program.
4 // If the user enters the wrong PIN, print "Incorrect PIN, try again".
5 // After three incorrect attempts, print "Account locked". using a for loop and if statements.
6 import java.util.Scanner;
7 public class question7 {
8     public static void main(String[] args) {
9         Scanner sc = new Scanner(System.in);
10        int correctPIN = 1234;
11        int attempts = 3;
12        for (int i = 1; i <= attempts; i++){
13            System.out.println("Enter your PIN: ");
14            int enteredPIN = sc.nextInt();
15            if (enteredPIN == correctPIN) {
16                System.out.println("Access Granted");
17                break;
18            } else {
19                if (i < attempts) {
20                    System.out.println("Incorrect PIN, try again");
21                } else {
22                    System.out.println("Account locked");
23                }
24            }
25        }
26    }
27 }
28
29
```

Output:



The screenshot shows the output of the Java program in a terminal window. The output consists of three lines of input and three lines of output, corresponding to the three attempts described in the code comments. The first two attempts are incorrect, and the third is correct, resulting in 'Access Granted'.

```
1f8e048327890e (redhat: java) jul_ws (TASKK_058e430
Enter your PIN:
12
Incorrect PIN, try again
Enter your PIN:
123
Incorrect PIN, try again
Enter your PIN:
1234
Access Granted
```