

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 a Java code editor interface with the following details:

- File Explorer:** Shows files: Java-assignment-3.java, NewIfElse.java 1, Loop.java, Hello.class, and Java2.java.
- Code Editor:** Displays Java code for a class named Java2. The code uses a for loop to iterate from 1 to 50. It checks if each number is divisible by 3 or 5 using an if-else statement. If the number is divisible by both, it uses continue to skip it. Otherwise, it prints the number using System.out.println(i). A yellow lightbulb icon is shown at line 15, indicating a potential issue or suggestion.
- Terminal:** Shows the output of the program, which lists all numbers from 1 to 50 that are divisible by either 3 or 5, but not both. The output is:

```
9
10
12
18
20
21
24
25
27
33
35
36
39
40
42
48
50
```
- Bottom Navigation:** Includes tabs for PROBLEMS (2), OUTPUT, DEBUG CONSOLE, PORTS, TERMINAL (underlined), and SOURCE CONTROL.

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 a Java code editor interface with several tabs at the top: "Java-assignment-3.java", "NewIfElse.java 1", "Loop.java", "Hello.class", "Java2.java X", and "...". The "Java2.java" tab is active, displaying the following Java code:

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

Below the code editor is a terminal window titled "TERMINAL" with the following content:

```
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 }
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 a Java development environment with the following details:

- Project Structure:** Java > Java2.java > Java2
- Java2.java Content:**

```
1 import java.util.Scanner;
2 public class Java2 {
3     char u = 'r';
4     Run | Debug
5     public static void main(String[] args) {
6         for (int i=1; i<=30;i++){
7             if (i%3==0 && i%5==0){
8                 System.out.println("FizzBuzz");
9             }
10            else if(i%5==0){
11                System.out.println("Buzz");
12            }
13            else if(i%3==0){
14                System.out.println("Fizz");
15            }
16        }
17    }
```
- Terminal 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 }
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 a Java code editor with several tabs at the top: "Java-assignment-3.java", "NewIfElse.java 1", "Loop.java", "Hello.class", and "Java2.java". The "Java2.java" tab is active, displaying the following Java code:

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

Below the code editor is a terminal window titled "TERMINAL" with the following content:

```
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 Intege:12
Enter an Intege:23
Enter an Intege:22
22
Enter an Intege:1
```

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 a Java IDE interface with the following details:

- Project Structure:** Shows tabs for "Java-assignment-3.java", "NewIfElse.java 1", "Loop.java", "Hello.class", and "Java2.java".
- Code Editor:** Displays Java code for "Java2.java".

```
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 }
```
- Terminal:** Shows the command-line output of the program execution.

```
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 a Java IDE interface with several tabs at the top: Java-assignment-3.java, NewIfElse.java 1, Loop.java, Hello.class, Java2.java (active), and others. The Java2.java tab contains the following code:

```
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    }
15    System.out.println("done");
16 }
17 }
```

The terminal window below shows the execution of the Java2.java file. It prints the numbers from 1 to 30, skipping the number 15 and doubling every number divisible by 4. The output ends with the string "done".

```
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
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
PS C:\Users\A S U S\Desktop\websites>
```

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".

The screenshot shows a Java IDE interface with several tabs at the top: Java-Assignment-3.java, NewIfElse.java 1, Loop.java, Hello.class, Java2.java (which is the active tab), and others. The Java2.java tab contains the following code:

```
Java > Java2.java > Java2
1 import java.util.*;
2 public class Java2 {
3     Run|Debug
4     public static void main(String[] args) {
5         int correctPIN = 1234;
6         int attempts = 3;
7         Scanner sc = new Scanner(System.in);
8
9         for (int i = 0; i < attempts; i++) {
10             System.out.print("Enter your PIN: ");
11             int enteredPIN = sc.nextInt();
12
13             if (enteredPIN == correctPIN) {
14                 System.out.println("Access Granted");
15                 sc.close();
16                 return;
17             } else {
18                 System.out.println("Incorrect PIN, try again");
19             }
20
21         }
22
23         System.out.println("Account locked");
24         sc.close();
25     }
}
```

To the right of the code editor is a terminal window showing the execution of the program. It starts with the command `javac Java2.java`, followed by three attempts to enter the PIN. The first two attempts (12 and 123) are incorrect, resulting in the message "Incorrect PIN, try again". The third attempt (234) is correct, resulting in the message "Access Granted". After the third attempt, the program prints "Account locked".

```
PS C:\Users\ASUS\Desktop\websites> cd "c:\Users\ASUS\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\ASUS\Desktop\websites\Java> cd "c:\Users\ASUS\Desktop\websites\Java"
" ; if ($?) { javac Java2.java } ; if ($?) { java Java2 }
Enter your PIN: 1234
Access Granted
PS C:\Users\ASUS\Desktop\websites\Java>
```