

### Question 1:

```
package assignment1;

import java.util.Scanner;

public class PraticesQues1 {

    public static void main(String[] args) {

        // Create a Scanner object to read input
        Scanner scan = new Scanner(System.in);

        System.out.print("Enter an integer number: ");

        int num = scan.nextInt();

        // check the number

        if (num >= 20 && num <= 30)
        {
            if (num % 2 == 0)
            {
                // if number is even

                System.out.println("Jerry");
            }
            else
            {
                // if number is odd

                System.out.println("Tom");
            }
        }
    }
}
```

eclipse-workspace2 - Assignments/src/assignment1/PraticeQues1.java - Eclipse IDE

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```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class PraticeQues1 {
5     public static void main(String[] args) {
6         // Create a Scanner object to read input
7         Scanner scan = new Scanner(System.in);
8         System.out.print("Enter an integer number: ");
9         int num = scan.nextInt();
10
11         // check the number
12         if (num >= 20 && num <= 30)
13         {
14             if (num % 2 == 0)
15             {
16                 // if number is even
17                 System.out.println("Jerry");
18             }
19             else
20             {
21                 // if number is odd
22                 System.out.println("Tom");
23             }
24         }
25     }
26 }
27
```

Console X

<terminated> PraticeQues1 [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64.22.0.1.v...

Enter an integer number: 20

Jerry

eclipse-workspace2 - Assignments/src/assignment1/PraticeQues1.java - Eclipse IDE

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```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class PraticeQues1 {
5     public static void main(String[] args) {
6         // Create a Scanner object to read input
7         Scanner scan = new Scanner(System.in);
8         System.out.print("Enter an integer number: ");
9         int num = scan.nextInt();
10
11         // check the number
12         if (num >= 20 && num <= 30)
13         {
14             if (num % 2 == 0)
15             {
16                 // if number is even
17                 System.out.println("Jerry");
18             }
19             else
20             {
21                 // if number is odd
22                 System.out.println("Tom");
23             }
24         }
25     }
26 }
27
```

Console X

<terminated> PraticeQues1 [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64.22.0.1.v...

Enter an integer number: 23

Tom

## Question 2:

```
package assignment1;

import java.util.Scanner;

public class PalindromeCheck {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

        System.out.print("Enter a number: ");

        // take input from the user

        long originalno = scan.nextLong();

        if (isPalindrome(originalno))

        {

            //add the all even numbers

            int sum = 0;

            long temp=originalno;

            while (temp != 0)

            {

                long digit = (int) (temp % 10);

                if (digit % 2 == 0)

                {

                    sum += digit;

                }

                temp /= 10;

            }

            // check sum of even numbers is greater than 25

            if (sum > 25)

            {

                System.out.println(originalno + " is palindrome and sum of even numbers is greater than 25");

            }

            else

            {

                System.out.println(originalno + " is palindrome and sum of even numbers is less than 25");

            }

        }

    }

}
```

```

    }
}

else
{
    System.out.println(originalno + " is not palindrome.");
}

}

//check the number is palindrome or not

public static boolean isPalindrome(long originalno) {
    long reversednum = 0;
    long original = originalno;
    while (originalno != 0) {
        long digit = originalno % 10;
        reversednum = reversednum * 10 + digit;
        originalno /= 10;
    }
    return original == reversednum;
}
}

```

The screenshot shows the Eclipse IDE with a Java project named 'assignment1'. The file 'PalindromeCheck.java' is open in the editor. The code in the file includes a package declaration, imports, a main method that takes user input, and a static method 'isPalindrome' that checks if a number is a palindrome. The console window on the right shows the output of the program, indicating that the input number 2468642 is a palindrome and that the sum of even numbers is greater than 25.

```

1 package assignment1;
2 import java.util.Scanner;
3 public class PalindromeCheck {
4     public static void main(String[] args) {
5         Scanner scan = new Scanner(System.in);
6         System.out.print("Enter a number: ");
7         // take input from the user
8         long originalno = scan.nextLong();
9
10        if (isPalindrome(originalno))
11        {
12            //add the all even numbers
13            int sum = 0;
14            long temp=originalno;
15            while (temp != 0)
16            {
17                long digit = (int) (temp % 10);
18                if (digit % 2 == 0)
19                {
20                    sum += digit;
21                }
22                temp /= 10;
23            }
24            // check sum of even numbers is greater than 25
25            if (sum > 25)
26            {
27                System.out.println(originalno + " is palindrome and sum of even numbers is grea
28            }
29            else
30            {
31                System.out.println(originalno + " is palindrome and sum of even numbers is less
32            }
33        }
34        else
35        {
36            System.out.println(originalno + " is not palindrome.");
37        }
38    }
39 }
40 //check the number is palindrome or not |
41 public static boolean isPalindrome(long originalno) {
42     long reversednum = 0;
43     long original = originalno;

```

Console Output:

```

<terminated> PalindromeCheck [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justi.openjdkhotspotjre.full.win32.x86_64_22.0
Enter a number: 2468642
2468642 is palindrome and sum of even numbers is greater than 25

```

eclipse-workspace2 - Assignments/src/assignment1/PalindromeCheck.java - Eclipse IDE

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```
1 package assignment1;
2 import java.util.Scanner;
3 public class PalindromeCheck {
4     public static void main(String[] args) {
5         Scanner scan = new Scanner(System.in);
6         System.out.print("Enter a number: ");
7         // take input from the user
8         long originalno = scan.nextLong();
9
10        if (isPalindrome(originalno))
11        {
12            //add the all even numbers
13            int sum = 0;
14            long temp=originalno;
15            while (temp != 0)
16            {
17                long digit = (int) (temp % 10);
18                if (digit % 2 == 0)
19                {
20                    sum += digit;
21                }
22                temp /= 10;
23            }
24            // check sum of even numbers is greater than 25
25            if (sum > 25)
26            {
27                System.out.println(originalno + " is palindrome and sum of even numbers is grea
28            }
29            else
30            {
31                System.out.println(originalno + " is palindrome and sum of even numbers is less
32            }
33        }
34        else
35        {
36            System.out.println(originalno + " is not palindrome.");
37        }
38    }
39}
40 //check the number is palindrome or not
41 public static boolean isPalindrome(long originalno) {
42     long reversednum = 0;
43     long original = originalno;
```

Console X

<terminated> PalindromeCheck [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justj.openjdkhotspotjre.full.win32.x86\_64\_22.C  
Enter a number: 12345  
12345 is not palindrome.

eclipse-workspace2 - Assignments/src/assignment1/PalindromeCheck.java - Eclipse IDE

File Edit Source Refactor Source Navigate Search Project Run Window Help

```
1 package assignment1;
2 import java.util.Scanner;
3 public class PalindromeCheck {
4     public static void main(String[] args) {
5         Scanner scan = new Scanner(System.in);
6         System.out.print("Enter a number: ");
7         // take input from the user
8         long originalno = scan.nextLong();
9
10        if (isPalindrome(originalno))
11        {
12            //add the all even numbers
13            int sum = 0;
14            long temp=originalno;
15            while (temp != 0)
16            {
17                long digit = (int) (temp % 10);
18                if (digit % 2 == 0)
19                {
20                    sum += digit;
21                }
22                temp /= 10;
23            }
24            // check sum of even numbers is greater than 25
25            if (sum > 25)
26            {
27                System.out.println(originalno + " is palindrome and sum of even numbers is grea
28            }
29            else
30            {
31                System.out.println(originalno + " is palindrome and sum of even numbers is less
32            }
33        }
34        else
35        {
36            System.out.println(originalno + " is not palindrome.");
37        }
38    }
39}
40 //check the number is palindrome or not
41 public static boolean isPalindrome(long originalno) {
42     long reversednum = 0;
43     long original = originalno;
```

Console X

<terminated> PalindromeCheck [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justj.openjdkhotspotjre.full.win32.x86\_64\_22.C  
Enter a number: 12345654321  
12345654321 is palindrome and sum of even numbers is less than 25

### Question 3:

```
package assignment1;

import java.util.Scanner;

public class SumOfIntegers {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        int sum = 0;

        System.out.println("Enter a line of integers separated by spaces:");

        String input = scanner.nextLine();

        // Split the input string into individual elements

        String[] numbers = input.split(" ");

        for (String num:numbers) {

            int i = Integer.parseInt(num);

            sum +=i;

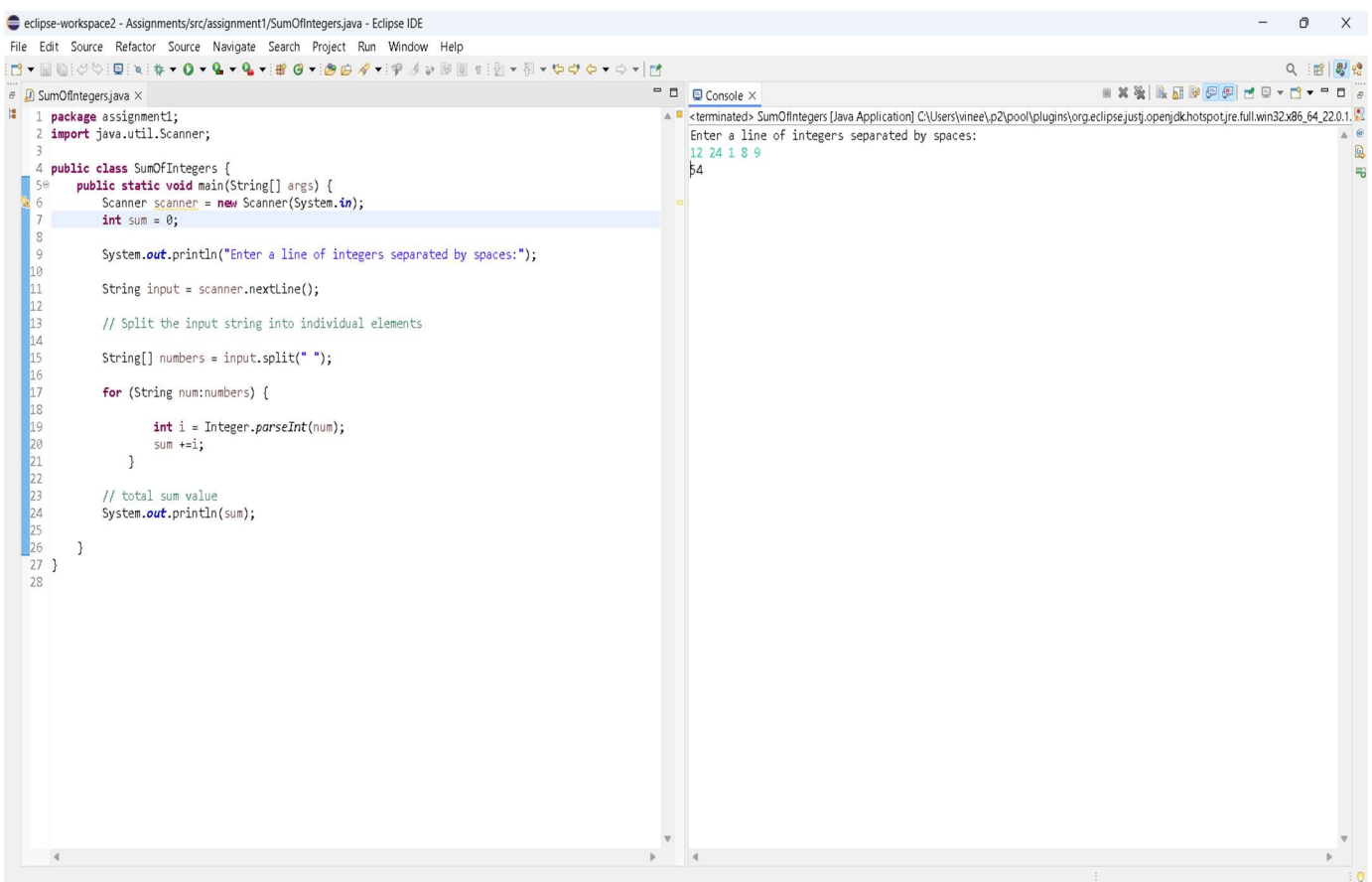
        }

        // total sum value

        System.out.println(sum);

    }

}
```



The screenshot shows the Eclipse IDE interface. The left pane displays the source code for `SumOfIntegers.java`, which matches the code provided in the previous block. The right pane shows the console output. The console text is as follows:

```
<terminated> SumOfIntegers [Java Application] C:\Users\winee\p2\pool\plugins\org.eclipse.justi.openjdk hotspot.jre.full.win32.x86_64_22.0.1...
Enter a line of integers separated by spaces:
12 24 1 8 9
54
```

**Question 4:**

```
package assignment1;

import java.util.Scanner;

public class UniqueNumber {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

        System.out.println("Enter a positive integer: ");

        // Get the integer input from the user

        int input = scan.nextInt();

        int original = input;

        boolean isUnique = true;

        // Extract individual digits by Converting the number to a string

        String numberStr = Integer.toString(input);

        int length = numberStr.length();

        // Check each digit against every other digit

        for (int i = 0; i < length - 1; i++) {

            char digit = numberStr.charAt(i);

            for (int j = i + 1; j < length; j++) {

                if (digit == numberStr.charAt(j)) {

                    isUnique = false;

                    break;

                }

            }

            if (!isUnique) {

                break;

            }

        }

        if (isUnique) {

            System.out.println(original + " is a unique number.");

        } else {

            System.out.println(original + " is not a unique number.");

        }

    }

}
```

```

    }

}

```

eclipse-workspace2 - Assignments/src/assignment1/UniqueNumber.java - Eclipse IDE

File Edit Source Refactor Source Navigate Search Project Run Window Help

UniqueNumber.java x

```

1 package assignment1;
2 import java.util.Scanner;
3
4 public class UniqueNumber {
5     public static void main(String[] args) {
6         Scanner scan = new Scanner(System.in);
7         System.out.println("Enter a positive integer: ");
8
9         // Get the integer input from the user
10        int input = scan.nextInt();
11        int original = input;
12
13        boolean isUnique = true;
14
15        // Extract individual digits by Converting the number to a string
16        String numberStr = Integer.toString(input);
17        int length = numberStr.length();
18
19        // Check each digit against every other digit
20        for (int i = 0; i < length - 1; i++) {
21            char digit = numberStr.charAt(i);
22            for (int j = i + 1; j < length; j++) {
23                if (digit == numberStr.charAt(j)) {
24                    isUnique = false;
25                    break;
26                }
27            }
28            if (!isUnique) {
29                break;
30            }
31        }
32
33        if (isUnique) {
34            System.out.println(original + " is a unique number.");
35        } else {
36            System.out.println(original + " is not a unique number.");
37        }
38    }
39 }

```

Console x

```

<terminated> UniqueNumber [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_22.0.1
Enter a positive integer:
314
314 is a unique number.

```

eclipse-workspace2 - Assignments/src/assignment1/UniqueNumber.java - Eclipse IDE

File Edit Source Refactor Source Navigate Search Project Run Window Help

UniqueNumber.java x

```

1 package assignment1;
2 import java.util.Scanner;
3
4 public class UniqueNumber {
5     public static void main(String[] args) {
6         Scanner scan = new Scanner(System.in);
7         System.out.println("Enter a positive integer: ");
8
9         // Get the integer input from the user
10        int input = scan.nextInt();
11        int original = input;
12
13        boolean isUnique = true;
14
15        // Extract individual digits by Converting the number to a string
16        String numberStr = Integer.toString(input);
17        int length = numberStr.length();
18
19        // Check each digit against every other digit
20        for (int i = 0; i < length - 1; i++) {
21            char digit = numberStr.charAt(i);
22            for (int j = i + 1; j < length; j++) {
23                if (digit == numberStr.charAt(j)) {
24                    isUnique = false;
25                    break;
26                }
27            }
28            if (!isUnique) {
29                break;
30            }
31        }
32
33        if (isUnique) {
34            System.out.println(original + " is a unique number.");
35        } else {
36            System.out.println(original + " is not a unique number.");
37        }
38    }
39 }

```

Console x

```

<terminated> UniqueNumber [Java Application] C:\Users\vinee\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_22.0.1
Enter a positive integer:
3121
3121 is not a unique number.

```