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public class Example1 {

    public static void main(String[] args) {
        // Example usage:
        String inputTime = "4:10";
        String result = toAMPM(inputTime);
        System.out.println("Converted Time: " + result);
    }

    public static String toAMPM(String t24) {

        // Step 1: Find the position of the ':'
        int positionOfColon = t24.indexOf(':');

        // 1.1 Take everything before the ':' and store as hours
        int hours = Integer.parseInt(t24.substring(0, positionOfColon));

        // 1.2 Take everything after the ':' and store as minutes
        int minutes = Integer.parseInt(t24.substring(positionOfColon + 1));

        // Validate hours and minutes ranges
        if (hours < 0 || hours > 23 || minutes < 0 || minutes > 59) {
            throw new IllegalArgumentException("Invalid input format");
        }

        // Step 2: Change the value for hours and set the variable ampm
        String ampm;
        if (hours == 0) {
            // 2.1 If hours = 0, set hours to 12 and ampm to "AM"
            hours = 12;
            ampm = "AM";
        } else if (hours < 12) {
            // 2.2 If 0 < hours < 12, set ampm to "AM"
            ampm = "AM";
        } else if (hours == 12) {
            // 2.3 If hours = 12, set ampm to "PM"
            ampm = "PM";
        } else {
            // 2.4 If 12 < hours, subtract 12 from hours and set ampm to "PM"
            hours -= 12;
            ampm = "PM";
        }

        // Step 3: Construct the result string and return it
        // 3.1 If hours < 10, add a leading "0" to hours
        String formattedHours = "";
        if (hours < 10){

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        formattedHours = "0" + hours;
    }
    else{
        formattedHours = String.valueOf(hours);
    }
    // 3.2 Construct result as hours + ":" + minutes + space + ampm
    String result = formattedHours + ":" + String.format("%02d", minutes) + " " + ampm;
    // 3.3 Return result
    return result;

}

}
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public class Example2 {

    private static final String[] SMALL_NUMS = {"", "One", "Two", "Three", "Four", "Five", "Six",
"Seven", "Eight", "Nine", "Ten",
    "Eleven", "Twelve", "Thirteen", "Fourteen", "Fifteen", "Sixteen", "Seventeen", "Eighteen",
"Nineteen"};

    private static final String[] TENS = {"", "", "Twenty", "Thirty", "Forty", "Fifty", "Sixty", "Seventy",
"Eighty", "Ninety"};

    public static void main(String[] args){

        System.out.println(speakNumber(999999));

    } //end main

    public static String speakNumber(int number){

        if (number <= 0 || number >= 1000000) {
            throw new IllegalArgumentException("Number must be between 1 and 999999");
        }

        int tens = number / 10;
        int units = number % 10;
        int hundreds = number / 100;
        int hundredsRemainder = number % 100;
        int thousands = number / 1000;
        int thousandsRemainder = number % 1000;

        if (number < 20) {
            return SMALL_NUMS[number];
        } else if (number < 100) {
            return TENS[tens] + ((units != 0) ? " " + SMALL_NUMS[units] : "");
        } else if (number < 1000) {
            return SMALL_NUMS[hundreds] + " Hundred" + ((hundredsRemainder == 0) ? " " : " " +
speakNumber(hundredsRemainder));
        } else {
            return speakNumber(thousands) + " Thousand" + ((thousandsRemainder == 0) ? " " : " " +
speakNumber(thousandsRemainder));
        }

    }

} //end class

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public class Example3 {
    public static void main(String[] args) {
        String expression = "10 10 10"; // Example input
        int sum = calculateSum(expression);
        System.out.println("Sum: " + sum);
    }

    public static int calculateSum(String exp) {
        int sum = 0;
        int startPos = 0;
        int endPos = 0;

        while (endPos < exp.length()) {
            endPos = findEnd(exp, startPos);
            int number = Integer.parseInt(exp.substring(startPos, endPos));
            sum += number;
            startPos = endPos + 1;
        }

        return sum;
    }

    public static int findEnd(String exp, int searchPos) {
        while (searchPos < exp.length() && Character.isDigit(exp.charAt(searchPos))) {
            searchPos++;
        }
        return searchPos;
    }
}

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