MARAM SRIPATHI

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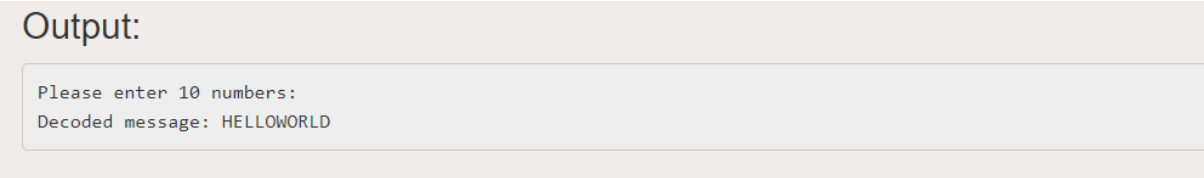
1.

```
import java.util.HashMap;
import java.util.Map;
import java.util.Scanner;

public class SecretMessageDecoder {
    public static void main(String[] args) {
        // Mapping of numbers to letters
        Map<Integer, Character> codeMap = new HashMap<>();
        codeMap.put(1, 'D');
        codeMap.put(2, 'W');
        codeMap.put(3, 'E');
        codeMap.put(4, 'L');
        codeMap.put(5, 'H');
        codeMap.put(6, 'O');
        codeMap.put(7, 'R');

        Scanner scanner = new Scanner(System.in);
        StringBuilder decodedMessage = new StringBuilder();

        System.out.println("Please enter 10 numbers:");

        int count = 0;
        while (count < 10) {
            int num = scanner.nextInt();

            if (codeMap.containsKey(num)) {
```

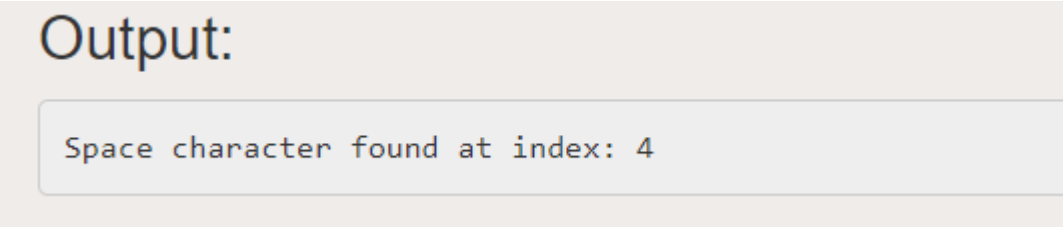
```
            decodedMessage.append(codeMap.get(num));
            count++;
        } else {
            System.out.println("Invalid number. Please enter a valid number:");
        }
    }

    System.out.println("Decoded message: " + decodedMessage.toString());
  }
}
```

OUTPUT:



2.
```
public class SearchSpaceCharacter {
  public static void main(String[] args) {
    String str = "This is a test string";
    int index = 0;

    while (index < str.length()) {
      if (str.charAt(index) == ' ') {
        System.out.println("Space character found at index: " + index);
        break;  // Exit the loop once a space character is found
      }
      index++;
    }
  }
}
```

OUTPUT:



3.

```
public class PrintDaysOfWeek {
    public static void main(String[] args) {
        // Days of the week
        String[] daysOfWeek = {"Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday",
"Saturday"};

        // January 1st, 2023 is a Sunday. (For example, let's assume the year starts on a Sunday)
        int startDay = 0; // 0 represents Sunday

        for (int day = 1; day <= 365; day++) {
            // Print the day of the week for the current day
            System.out.println("Day " + day + ": " + daysOfWeek[(startDay + day - 1) % 7]);
        }
    }
}
```

OUTPUT:

Output:

```
Day 1: Sunday
Day 2: Monday
Day 3: Tuesday
Day 4: Wednesday
Day 5: Thursday
Day 6: Friday
Day 7: Saturday
Day 8: Sunday
Day 9: Monday
Day 10: Tuesday
```

4.

```
import java.util.Arrays;

public class AnagramChecker {

    public static void main(String[] args) {
        String str1 = "parliament";
        String str2 = "partial men";

        boolean result = areAnagrams(str1, str2);
        System.out.println("Are the two strings anagrams? " + result);
    }

    public static boolean areAnagrams(String str1, String str2) {
        // Remove whitespace and punctuation, and convert to lowercase
        String cleanedStr1 = cleanString(str1);
        String cleanedStr2 = cleanString(str2);

        // If lengths of cleaned strings are not equal, they can't be anagrams
```

```
        if (cleanedStr1.length() != cleanedStr2.length()) {
            return false;
        }

        // Convert strings to character arrays
        char[] charArray1 = cleanedStr1.toCharArray();
        char[] charArray2 = cleanedStr2.toCharArray();

        // Sort the character arrays
        Arrays.sort(charArray1);
        Arrays.sort(charArray2);

        // Compare the sorted arrays
        return Arrays.equals(charArray1, charArray2);
    }

    public static String cleanString(String str) {
        return str.replaceAll("[\\W]", "").toLowerCase();
    }
}
```

Output: