1. Consider you are asked to decode a secret message. The coded message is in numbers and each number stands for a specific letter. You discover enough of the secret code to decode the current message. So far, you know: • 1 represents “D” • 2 represents “W” • 3 represents “E” • 4 represents “L” • 5 represents “H” • 6 represents “O” • 7 represents “R” Write a program that prompts the user for 10 numbers, one at a time, and prints out the decoded message. If the user enters a number that is not one of those already deciphered, prompt him/her for a new number. Test your code with the following input:

PROGRAM :-

```
import java.util.Scanner;
public class SecretMessage{
    public static void main(String[] arges){
        Scanner in=new Scanner(System.in);
        String sevretcode="DWELHOR";
        String decodedmessage="";
        System.out.print("Enter 10 numbers to decode the secret message");
        for (int i=0;i<10;i++){
            int num= in.nextInt();
            char letter=decodeletter(num);
            if(letter=='*'){
                System.out.print("Invalid number! Please enter a valid number");
                i--;
            }else
            {
                decodedmessage+=letter;
            }
        }
        System.out.print("Decode Message : "+ decodedmessage);
    }
    public static char decodeletter(int num){
        switch (num){
            case 1:
                return 'D';
            case 2:
                return 'W';
            case 3:
                return 'E';
            case 4:
                return 'L';
            case 5:
                return 'H';
            case 6:
                return 'O';
            case 7:
                return 'R';
            default:
                return '*';
        }
    }
}
```

OUTPUT :-

```
java -cp /tmp/ELOnGQZRqx/SecretMessage
1Enter 10 numbers to decode the secret message
1 2 3 4 5 6 7 1 2 3
Decode Message : DWELHORDWE
=== Code Execution Successful ===
```