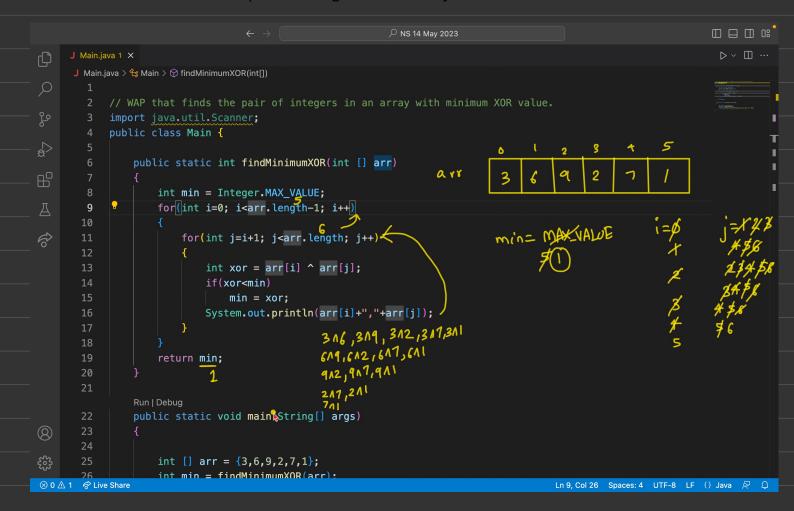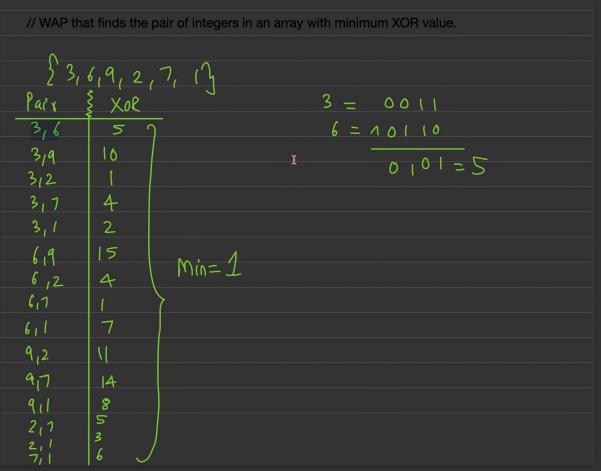// WAP that finds the pair of integers in an array with minimum XOR value.

```java
// WAP that finds the pair of integers in an array with minimum XOR value.
import java.util.Scanner;
public class Main {

    public static int findMinimumXOR(int [] arr)
    {
        int min = Integer.MAX_VALUE;
        for(int i=0; i<arr.length-1; i++)
        {
            for(int j=i+1; j<arr.length; j++)
            {
                int xor = arr[i] ^ arr[j];
                if(xor<min)
                    min = xor;
                System.out.println(arr[i]+","+arr[j]);
            }
        }
        return min;
    }

    public static void main(String[] args)
    {

        int [] arr = {3,6,9,2,7,1};
        int min = findMinimumXOR(arr);
```

Handwritten annotations:

arr:

0	1	2	3	4	5
3	6	9	2	7	1

min = MAX_VALUE
5 ①

i=0
1
2
3
4
5

j = 1 2 3
   3 4 5 6
   2 3 4 5 6
   3 4 5 6
   4 5 6
   5 6

3^6, 3^9, 3^2, 3^7, 3^1
6^9, 6^2, 6^7, 6^1
9^2, 9^7, 9^1
2^7, 2^1
7^1

return min;
    1

// WAP that finds the pair of integers in an array with minimum XOR value.

{ 3, 6, 9, 2, 7, 1 }

Pair	XOR
3,6	5
3,9	10
3,2	1
3,7	4
3,1	2
6,9	15
6,2	4
6,7	1
6,1	7
9,2	11
9,7	14
9,1	8
2,7	5
2,1	3
7,1	6

Min = 1

$$3 = 0011$$
$$6 = 1010$$
$$0101 = 5$$

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            {
                int xor = arr[i] ^ arr[j];
                if(xor<min)
                    min = xor;
                System.out.println(arr[i]+","+arr[j]);
            }
        }
        return min;
    }

    public static void main(String[] args)
    {

        int [] arr = {3,6,9,2,7,1};
        int min = findMinimumXOR(arr);
        System.out.printf("The minimum XOR value in the array is %d",
min);
        // System.out.print("The minimum XOR value in the array is " +
min);
    }
}
```