

\*\*\*\*\* OUTPUT \*\*\*\*\*

## Validation check:

```
Welcome to Online IDE!! Happy Coding :)
The word: FOAM11 is too big for the matrix: 4 X 4
```

Output also clearly shows in red that word FOAM has been matched in matrix:

Welcome to Online IDE!! Happy Coding :)

\*\*\*\*\*Checking each row\*\*\*\*\*

\*\*\*Checking row\*\*\*: 0

value i:0

0 value

j:0

Processing character from word: F

Processing character from matrix: F

count is: 1

length of word is: 4

value j:1

Processing character from word: O

Processing character from matrix: O

count is: 2

length of word is: 4

value j:2

Processing character from word: A Processing  
character from matrix: A

count is: 3 length

of word is: 4

value j:3

Processing character from word: M

Processing character from matrix: M

count is: 4 length

of word is: 4

Match found in word: FOAM on row: 0

\*\*\*Checking row\*\*\*: 1

value i:1

0 value

j:0

Processing character from word: F

Processing character from matrix: O

value j:1

Processing character from word: O

Processing character from matrix: B value

j:2

Processing character from word: A

Processing character from matrix: Q

value j:3

Processing character from word: M

Processing character from matrix: P

\*\*\*Checking row\*\*\*: 2

value i:2

0 value

j:0

Processing character from word: F

Processing character from matrix: A value

j:1

Processing character from word: O

Processing character from matrix: N

value j:2

Processing character from word: A

Processing character from matrix: O

value j:3

Processing character from word: M

Processing character from matrix: B

\*\*\*Checking row\*\*\*: 3

value i:3

0 value

j:0

Processing character from word: F

Processing character from matrix: M

value j:1

Processing character from word: O

Processing character from matrix: A value

j:2

Processing character from word: A

Processing character from matrix: S value

j:3

Processing character from word: M

Processing character from matrix: S

\*\*\*\*\*Checking each column\*\*\*\*\*

\*\*\*Checking column\*\*\*: 0

value i:0 value

j:0

Processing character from word: F Processing

character from matrix: F

count is: 1 length

of word is: 4

value j:1

Processing character from word: O

Processing character from matrix: O

count is: 2 length

of word is: 4

value j:2

Processing character from word: A Processing

character from matrix: A

count is: 3 length

of word is: 4

value j:3

Processing character from word: M

Processing character from matrix: M

count is: 4

length of word is: 4

Match found in word: FOAM on column: 0

\*\*\*Checking column\*\*\*: 1

value i:1 value  
j:0 Processing  
character  
from word: F  
Processing  
character  
from matrix:  
O value j:1  
Processing character from word: O  
Processing character from matrix: B value  
j:2  
Processing character from word: A  
Processing character from matrix: N  
value j:3  
Processing character from word: M  
Processing character from matrix: A

\*\*\*Checking column\*\*\*: 2

value i:2 value  
j:0  
Processing character from word: F  
Processing character from matrix: A value  
j:1  
Processing character from word: O  
Processing character from matrix: Q  
value j:2  
Processing character from word: A  
Processing character from matrix: O  
value j:3  
Processing character from word: M  
Processing character from matrix: S

\*\*\*Checking column\*\*\*: 3

value i:3 value  
j:0  
Processing character from word: F  
Processing character from matrix: M  
value j:1  
Processing character from word: O  
Processing character from matrix: P value  
j:2  
Processing character from word: A  
Processing character from matrix: B  
value j:3  
Processing character from word: M  
Processing character from matrix: S

\*\* Process exited - Return Code: 0 \*\*

\*\*\* CODE \*\*\*

```
/*
```

```
Online Java - IDE, Code Editor, Compiler
```

```
Online Java is a quick and easy tool that helps you to build, compile, test your programs online. */
```

```
public class Main
```

```
{
```

```
    public static void main(String[] args) {
```

```
        System.out.println("Welcome to Online IDE!! Happy Coding :)");
```

```
        String word = "FOAM";
```

```
        char [] wordChars = word.toCharArray(); /// convert word into charracter Array
```

```
        char [][] matrix = {{'F','O','A','M'},
```

```
                            {'O','B','Q','P'},
```

```
                            {'A','N','O','B'},
```

```
                            {'M','A','S','S'}  };
```

```
        int count=0;
```

```
        if (word.length()>matrix.length || word.length()>matrix[0].length)
```

```
        {
```

```
            System.out.println("The word: " + word + " is too big for the matrix: " + matrix.length + " X " + matrix[0].length);
```

```
            System.exit(0);
```

```
        }
```

```
        System.out.println("*****Checking each column*****");
```

```
        //check each row for match in word
```

```
        for (int i=0; i<matrix[0].length; i++)
```

```
        {
```

```
            System.out.println("\n***Checking column***: " + i);
```

```
count=0;
```

```
            System.out.println("\nvalue i:" + i);
```

```
            System.out.println(count);
```

```
        for (int j=0; j<matrix.length; j++)
```

```
        {
```

```
            System.out.println("value j:" + j);
```

```
            System.out.println("Processing character from word: " + word.charAt(j));
```

```
System.out.println("Processing character from matrix: " + matrix[i][j]);
```

```

        if (matrix[i][j]==word.charAt(j))
        {

            count++;

            System.out.println("count is: " + count);
            System.out.println("length of word is: " + word.length());

            if (count==word.length())
            {
                System.out.println("\nMatch found in word: " + word + " on row: " + i);
            }
        }
    }

    //check each row for match in word

    System.out.println("\n*****Checking each row*****");

    for (int i=0; i<matrix.length; i++)

    {
        System.out.println("\n***Checking row***: " + i);
count=0;
        System.out.println("\nvalue i:" + i);

        for (int j=0; j<matrix[0].length; j++)
        {
            System.out.println("value j:" + j);

            System.out.println("Processing character from word: " + word.charAt(j));
            System.out.println("Processing character from matrix: " + matrix[j][i]);

            if (matrix[j][i]==word.charAt(count))
            {
                count++;

                System.out.println("count is: " + count);
                System.out.println("length of word is: " + word.length());

                if (count==word.length())
                {
                    System.out.println("\nMatch found in word: " + word + " on column: " + i + "\n");
                }
            }
        }
    }
}

```

}  
}