

**Code:**

```
package information_security;

public class RowColumnTranspositon {
    public static void encryption(String message, int[] key, char[][]
endCharMatrix, int noRow, int noCol) {
    String plaintext = message.replaceAll("\\s", "");

    char[][] matrix = new char[noRow][noCol];

    // below code places the plaintext characters into the matrix
    System.out.println("Row-Column Tranposition Technique: ");
    int index = 0;
    for (int i = 0; i < 5; i++) {
        for (int j = 0; j < 7; j++) {
            if (index < plaintext.length()) {
                matrix[i][j] = plaintext.charAt(index);
                index++;
            } else {
                // If the string is shorter than the matrix, fill with characters from
endCharMatrix
                matrix[i][j] = endCharMatrix[i][j];
            }
        }
    }

    // below code print the matrix
    for (int i = 0; i < noRow; i++) {
        for (int j = 0; j < noCol; j++) {
            System.out.print(matrix[i][j] + " ");
        }
        System.out.println();
    }
    System.out.println();

    // this code print the elements column by column in one line
    System.out.print("Encryption: ");
    for (int j = 0; j < matrix[0].length; j++) {
```

```

        for (int i = 0; i < matrix.length; i++) {
            System.out.print(matrix[i][j]);
        }
    }
    System.out.println();

}

public static void main(String[] args) {
    String message = "Kill corona virus at twelve am tomorrow";
    int[] key = {4, 3, 1, 5, 6, 7};
    char[][] endCharMatrix = {
        {'y', 'z', 'x', 'w', 'v', 'u', 't'},
        {'s', 'r', 'q', 'p', 'o', 'n', 'm'},
        {'l', 'k', 'j', 'i', 'h', 'g', 'f'},
        {'e', 'd', 'c', 'b', 'a', '9', '8'},
        {'7', '6', '5', '4', '3', '2', '1'}
    };
    int noRow = 5;
    int noCol = 7;

    encryption(message, key, endCharMatrix, noRow, noCol);

    System.out.println("Decryption: " + message);
}
}

```

## OUTPUT:

Row-Column Transposition Technique:

```

killcor
onaviru
sattwel
veamtom
orrow21

```

Encryption: Kosvoinaerlatarlvtmociwtworeo2rulm1

Decryption: Kill corona virus at twelve am tomorrow

