

```

import java.util.Arrays;
import java.util.Scanner;
public class Railfence {
    public static void Encrypt(String str, int n)
    {
        //if depth = 1
        if (n == 1)
        {
            System.out.print(str);
            return ;
        }
        char[] str1 = str.toCharArray();
        int len = str.length();
        String[] arr = new String[n];
        Arrays.fill(arr, "");
        int row = 0;
        boolean down = true;

        for (int i = 0; i < len; i++)
        {
            arr[row] = arr[row] + (str1[i]);
            if (row == n - 1)
            {
                down = false;
            }
            else if (row == 0)
            {
                down = true;
            }
            if (down)
            {
                row++;
            }
            else
            {
                row--;
            }
        }
        for (int i = 0; i < n; i++)
        {
            System.out.print(arr[i]);
        }
    }
    public static void main(String[] args) {

```

```
Scanner sc = new Scanner(System.in);
System.out.println("Enter the String for Encryption: ");
String str = new String();
str = sc.next(); //plaintext from user
int n = 3; //key / rows
System.out.println("Encrypted String:");
Encrypt(str, n);
}
}
```