import java.util.Scanner;

public class RailFenceCipher {

// Encryption function

public static String encrypt(String plainText, int rails) {

StringBuilder[] fence = new StringBuilder[rails];

for (int i = 0; i < rails; i++) {

fence[i] = new StringBuilder();

}

int rail = 0;

boolean down = true;

for (char c : plainText.toCharArray()) {

fence[rail].append(c);

if (down) {

rail++;

if (rail == rails - 1) {

down = false;

}

} else {

rail--;

if (rail == 0) {

down = true;

}

}

}

StringBuilder cipherText = new StringBuilder();

for (StringBuilder row : fence) {

cipherText.append(row);

}

return cipherText.toString();

}

// Main method

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Get plaintext input from the user

System.out.print("Enter the plaintext: ");

String plainText = scanner.nextLine();

// Get number of rails input from the user

System.out.print("Enter the number of rails: ");

int rails = scanner.nextInt();

// Encrypt the plaintext using the Rail Fence Cipher

String cipherText = encrypt(plainText, rails);

System.out.println("Encrypted text: " + cipherText);

scanner.close();

}

}