**Symmetric algorithm**

import java.util.Scanner;

public class Cipher {

// Method to encrypt the text using Caesar Cipher

public static String encrypt(String text, int shift) {

StringBuilder result = new StringBuilder();

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

char c = text.charAt(i);

if (Character.isLetter(c)) {

char base = Character.isLowerCase(c) ? 'a' : 'A';

result.append((char) ((c - base + shift) % 26 + base));

} else {

result.append(c);

}

}

return result.toString();

}

// Method to decrypt the text using Caesar Cipher

public static String decrypt(String text, int shift) {

return encrypt(text, 26 - shift);

}

// Main method to test the encryption and decryption

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a string: ");

// Read the input string

String text = scanner.nextLine();

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

// Read the input number

int key = scanner.nextInt();

String encryptedText = encrypt(text, key);

System.out.println("Encrypted Text: " + encryptedText);

String decryptedText = decrypt(encryptedText, key);

System.out.println("Decrypted Text: " + decryptedText);

}

}

**Sample Output**

Enter a string: Hello

Enter the key: 3

Encrypted Text: Khoor

Decrypted Text: Hello

Enter a string: how are you

Enter the key: 4

Encrypted Text: lsa evi csy

Decrypted Text: how are you

**Explanation**

1. **Encrypt Method**: This method takes a string text and an integer key as parameters. It iterates through each character in the string, checks if it's a letter, and shifts it by the given key value. Non-letter characters remain unchanged.
2. **Decrypt Method**: This method simply calls the encrypt method with the key value subtracted from 26 (since shifting by 26 - key is equivalent to shifting backward by the key value).
3. **Main Method**: This method tests the encryption and decryption methods by encrypting a sample text and then decrypting it back to the original text.