

Aim: To implement Modified Caesar Cipher Program

```
import javax.swing.JOptionPane;
public class ModifiedCaesar_Cipher {
public static void main(String[] args)
{
    String plain_text;
    String key;
    String cipher1,cipher2;
    plain_text=JOptionPane.showInputDialog("Input the string to encrypt:");
    key=JOptionPane.showInputDialog("Input the key:");
    cipher1=encrypt(plain_text,key);
    JOptionPane.showMessageDialog (null, "Cipher Text is " + cipher1, "Encryption
Process", JOptionPane.PLAIN_MESSAGE);
    cipher2=decrypt(cipher1,key);
    JOptionPane.showMessageDialog (null, "Plain Text is " + cipher2, "Decryption Process",
JOptionPane.PLAIN_MESSAGE);
}
public static String encrypt(String str1,String key1)
{
    int keylen=Integer.parseInt(key1);
    String encrypted="";
    for(int i=0;i<str1.length();i++)
    {
        int c=str1.charAt(i);

        if(Character.isUpperCase(c))
        {
            c=c+(keylen%26);
            if(c>'Z')
                c=c-26;
        }
        else if(Character.isLowerCase(c))
        {
            c=c+(keylen%26);

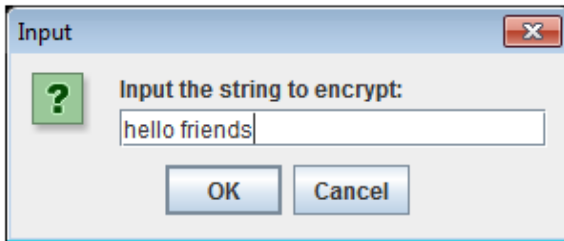
            if(c>'z')
                c=c-26;
        }
        encrypted+=(char)c;
    }
    keylen++;
}
return encrypted;
}
public static String decrypt(String str1,String key1)
{
    int keylen=Integer.parseInt(key1);
    String decrypted="";
    for(int i=0;i<str1.length();i++)
    {
        int c=str1.charAt(i);
        if(Character.isUpperCase(c))
        {
            c=c-(keylen%26);
            if(c<'A')
```

```

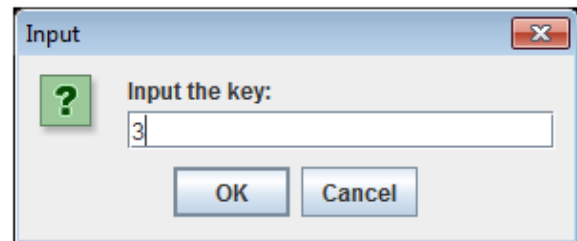
        c=c+26;
    }
    else if(Character.isLowerCase(c))
    {
        c=c-(keylen%26);
        if(c<'a')
            c=c+26;
    }
    decrypted+=(char)c;
keylen++;
}
return decrypted;
}
}

```

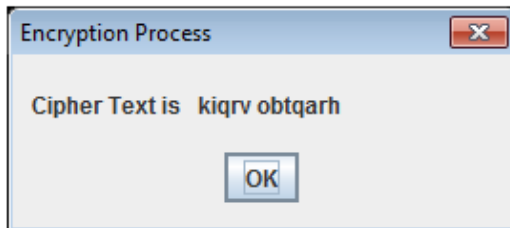
Output:



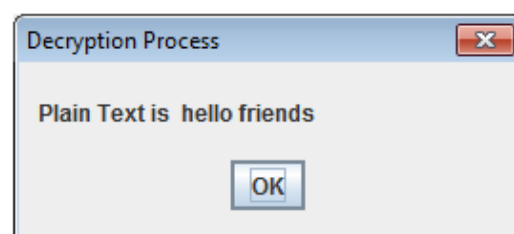
Input dialog box titled "Input" with a question mark icon. The text "Input the string to encrypt:" is followed by a text input field containing "hello friends". Below the field are "OK" and "Cancel" buttons.



Input dialog box titled "Input" with a question mark icon. The text "Input the key:" is followed by a text input field containing "3". Below the field are "OK" and "Cancel" buttons.



Encryption Process dialog box with a close button. The text "Cipher Text is kiqrv obtqarh" is displayed. Below the text is an "OK" button.



Decryption Process dialog box with a close button. The text "Plain Text is hello friends" is displayed. Below the text is an "OK" button.