

## Step 1

The API client invokes the login URL for authentication and provides the login credentials.

```
Dim objXMLHTTP As msxml.XMLHTTPRequest
Dim strUserID As String
Dim strPassword As String

Set objXMLHTTP = New msxml.XMLHTTPRequest
strLoginURLString = "https://<server>:<port>/<LoginURL>/"
strUserID = "<User ID>"
strPassword = "<Password>"

'Open a connection to the login URL
objXMLHTTP.open "POST", strLoginURLString, False, strUserID,
strPassword

'Send the request
objXMLHTTP.send
```

## Step 2

The API client checks the status of the login process by examining the API response.

```
'Checking the status of the login process

Dim bolFailFlag As Boolean

If InStr(1, objXMLHTTP.getAllResponseHeaders,
"GEMINIAPIAUTHENTICATION=2001") <> 0 Then
    MsgBox "Authentication successful"
End If

If InStr(1, objXMLHTTP.getAllResponseHeaders, "GEMINIAPIAUTHORIZATION=2002")
<> 0 Then
    MsgBox "Authorization successful"
End If

If InStr(1, objXMLHTTP.getAllResponseHeaders,
"GEMINIAPIAUTHENTICATION=4001") <> 0 Then
    MsgBox "Authentication failure"
    bolFailFlag = True
End If

If InStr(1, objXMLHTTP.getAllResponseHeaders, "GEMINIAPIAUTHORIZATION=4002")
<> 0 Then
    MsgBox "Authorization failure"
    bolFailFlag = True
End If

'In case of authentication/authorization failure, the LOCATION header key
'needs to be checked to obtain supplementary information

If (bolFailFlag = True And InStr(1, objXMLHTTP.getAllResponseHeaders,
"LOCATION") <> 0) Then
    If InStr(1, objXMLHTTP.getAllResponseHeaders, "SMAUTHREASON=1") <> 0 Then
        MsgBox "User must change password"
    End If

'Similar checks must be done for other SMAUTHREASON values

End If
```

## Step 3

After a successful authentication and authorisation, the API client invokes the desired API by supply the correct https request headers and body.

The body is passed as an XML document containing the relevant input parameters. This corresponds to the input schema definition of the corresponding API.

### Header

```
Dim objXMLHTTP As msxml.XMLHTTPRequest
Dim strAPIUrl As String

Set objXMLHTTP = New msxml.XMLHTTPRequest
strAPIUrl = "https://<server>:<port>/<API_URL>"

objXMLHTTP.open "POST", strAPIUrl, False
```

### Body

```
Dim strInputXMLString As String

objXMLHTTP.setRequestHeader "Content-Type", "application/x-www-form-urlencoded"

'Create the Input XML and assign the same to strInputXMLString
strInputXMLString = "INPUT="+ <Input XML string to be passed to the API>"

objXMLHTTP.send strInputXMLString
```

## Step 4

A valid XML document is returned as the response body. This corresponds to the output schema definition of the corresponding API.

```
Dim strResponseXML As String
strResponseXML = objXMLHTTP.responseText
```

## Step 5

The API client invokes the logout URL to terminate the session.

```
Dim objXMLHTTP As msxml.XMLHTTPRequest
Dim strAPILogoutUrl As String

Set objXMLHTTP = New msxml.XMLHTTPRequest
strAPILogoutUrl = https://<server>:<port>/<API_LOGOUT_URL>

objXMLHTTP.open "POST", strAPILogoutUrl, False
objXMLHTTP.send
```