

When a user logs in with a name and password, the Web service authenticates them by searching a database table. If the user is accepted, a random integer (called a *session ID*) is created and sent to the user. The Web service uses this ID to identify the user in all subsequent calls to Web methods.

A user sends a message by calling a Web method and passing a session ID, the name of the recipient, and the message text. A user receives her messages by passing a session ID to a Web method that returns an array of message strings. When the user logs out, the unique ID assigned to the user is discarded. Here are the suggested method declarations:

```
'Logs into the the message service with a username and password.  
'Returns a unique integer to be used in subsequent transmissions.  
'
```

```
Public Function Login(ByVal userName As String, _  
    ByVal passwd As String) As Integer
```

```
'Sends a message to a specific user. Parameters:  
'sessionId: unique identifier returned by Login method.  
'recipient: username of the receiver of the message  
'msg: the text of the message  
'Returns True if the userId is recognized, or False if it is not.  
'
```

```
Public Function Send(ByVal sessionId As Integer, _  
    ByVal recipient As String, _  
    ByVal msg As String) As Boolean
```

```
'Gets all messages addressed to the current user.  
'If the sessionId is recognized, a DataSet containing  
'the messages is returned; otherwise, an empty array is returned.  
'
```

```
Public Function GetMessages(ByVal sessionId As Integer) As DataSet
```

```
'Logs out of the message service. Discards the session ID.  
'
```

```
Public Sub Logout(ByVal sessionId As Integer)
```