



OMS eLearning Academy

For Refinery Offsite Operations Professionals

Excellence in eLearning™

TOPIC ID

OEA1203D

CATEGORY ID

MCOR

TOPIC

OEA1203D-Management of Remote Server Access using SSH Connection

REVISION

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OMS eLearning Academy
For Refinery Offsite Operations Professionals



**OEA1203D-Management of
Remote Server Access using SSH
Connection**



Objective

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1. The purpose of this document is to describe the steps and methodologies to access MySQL database in Kinsta using Excel VBA to interface to update/ insert/ delete records.
2. This document will discuss how to delete and update remote directory contents using SFTP and SSH connections and VBA code.
3. The basic principle is to use SSH (**Secure SHell**) *protocol* tunneling to access the database in Excel VBA as opposed to using direct ODBC driver in Excel VBA as done in most of the host.
4. Please note that not all hosts provide direct DB access via direct ODBC but must tunnel thru SSH first and then access database via OBBC.



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1. Installation of plink and MySQL workbench
2. Command-line connection to servers by SSH
3. Command-line Connections to MySQL servers
4. Setting up of SSH/MySQL connections in MySQL Workbench
5. Access remote server directory by SFTP and SSH
6. Confirmation of connections validity to respective servers



Installation of Prerequisite Software

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- Install PuTTY from www.PuTTY.com
- Copy plink.exe to c:\windows\system32
- Install git from www.git-scm.com/download/win
- Copy ssh.exe from C:\Program Files\Git\usr\bin\ to c:\windows\system32
- Install MySQL workbench by downloading from <https://www.mysql.com/products/workbench/> and install to test the MySQL database access



Command Line SSH Tunnel

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"D:\PuTTY\plink.exe" -ssh *HostID* -P *Port* -l *userID* -pw *Password*

No	Domain	Type	HostID	SSHPort	UserID	Password
1	www.globaloms.com	Live	34.70.86.147	16121	globaloms	9LnPM7pAljmjxjO
2	https://staging-globaloms.kinsta.cloud/	Staging		55041		
3	www.oms-elearning-academy.com	Live		36103	omselearningacademycom	qZ687l8Av7pKBFV
4	https://staging-omselearningacademycom.kinsta.cloud/	Staging		29219		



Command Line MySQL Access after SSH connection is established

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```
mysql -h localhost -u userid -p * DBName
```

** Leave Blank and will be prompted to enter*

No	Domain	Type	HostID	SQLPort	UserID	Password
1	www.globaloms.com	Live	34.70.86.147	3306	globaloms	qZ687I8Av7pKBFV
2	https://staging-globaloms.kinsta.cloud/	Staging				
3	www.oms-elearning-academy.com	Live			omselearningacademycom	NA4syavIVctSc3O
4	https://staging-omselearningacademycom.kinsta.cloud/	Staging				



Checking of SQL connections in MySQL workbench

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The screenshot displays four MySQL Workbench windows. Each window shows a SQL query and its corresponding result grid. The queries are: "Select * from oea_options", "Select * from oea_options", "select * from go_options", and "select * from go_options". The result grids show columns for option_id, option_name, option_value, and autoload.

option_id	option_name	option_value	autoload
1	siteurl	https://www.oms-elearning-academy.com	yes
2	home	https://www.oms-elearning-academy.com	yes
3	blogname	OMS eLearning Academy for Refinery Offsite Operations	yes

option_id	option_name	option_value	autoload
1	siteurl	https://staging-onselearningacademy.com.kinsta.cloud	yes
2	home	https://staging-onselearningacademy.com.kinsta.cloud	yes
3	blogname	OMS eLearning Academy for Refinery Offsite Operations	yes

option_id	option_name	option_value	autoload
1	siteurl	https://globaloms.com	yes
2	home	https://globaloms.com	yes
3	blogname	globaloms	yes
4	blogdescription	Consultants and Automation solution providers ...	yes

option_id	option_name	option_value	autoload
1	siteurl	https://staging-globaloms.kinsta.cloud	yes
2	home	https://staging-globaloms.kinsta.cloud	yes
3	blogname	globaloms	yes
4	blogdescription	Consultants and Automation solution providers ...	yes

1. Execute sql query “Select * from oea_options” or “Select * from go_options”
2. The correct URL of site will conform the correct connections to respective databases



SSH/SQL connection to Live Academy MySQL database

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Manage Server Connections

MySQL Connections

- Staging Kinsta MySQL Ac...
- Live Kinsta MySQL Acade...
- Live Kinsta MySQL Global...
- Staging Kinsta MySQL Gl...

Connection Name: Live Kinsta MySQL Academy

Connection Remote Management System Profile

Connection Method: Standard TCP/IP over SSH Method to use to connect to the RDBMS

Parameters SSL Advanced

SSH Hostname: 34.70.86.147:36103 SSH server hostname, with optional port number.

SSH Username: omselearningacademycom Name of the SSH user to connect with.

SSH Password: Store in Vault ... Clear SSH user password to connect to the SSH tunnel.

SSH Key File: ... Path to SSH private key file.

MySQL Hostname: localhost MySQL server host relative to the SSH server.

MySQL Server Port: 3306 TCP/IP port of the MySQL server.

Username: omselearningacademycom Name of the user to connect with.

Password: Store in Vault ... Clear The MySQL user's password. Will be requested later if not set.

Default Schema: omselearningacademycom The schema to use as default schema. Leave blank to select it later.

New Delete Duplicate Move Up Move Down Test Connection Close

OEA1203D-Management of Remote Server Access using SSH Connection



SSH/SQL connection to Staging Academy MySQL database

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The screenshot shows the 'Manage Server Connections' dialog box with the following configuration:

- Connection Name:** Staging Kinsta MySQL Academy
- Connection Method:** Standard TCP/IP over SSH
- Parameters:**
 - SSH Hostname:** 34.70.86.147:29219
 - SSH Username:** omselearningacademycom
 - SSH Password:** Store in Vault ... Clear
 - SSH Key File:** ...
 - MySQL Hostname:** localhost
 - MySQL Server Port:** 3306
 - Username:** omselearningacademycom
 - Password:** Store in Vault ... Clear
 - Default Schema:** omselearningacademycom

Buttons at the bottom: New, Delete, Duplicate, Move Up, Move Down, Test Connection, Close.

OEA1203D-Management of Remote Server Access using SSH Connection



SSH/SQL connection to Staging Globaloms MySQL database

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The screenshot shows the 'Manage Server Connections' dialog box. On the left, a list of MySQL connections is shown, with 'Staging Kinsta MySQL Globaloms' selected. The main area is titled 'Staging Kinsta MYSQL Globaloms' and has three tabs: 'Connection', 'Remote Management', and 'System Profile'. The 'Connection' tab is active, showing a 'Connection Method' dropdown set to 'Standard TCP/IP over SSH'. Below this are three sub-tabs: 'Parameters', 'SSL', and 'Advanced'. The 'Parameters' sub-tab is active and contains the following fields:

SSH Hostname:	34.70.86.147:55041	SSH server hostname, with optional port number.
SSH Username:	globaloms	Name of the SSH user to connect with.
SSH Password:	Store in Vault ... Clear	SSH user password to connect to the SSH tunnel.
SSH Key File:	Path to SSH private key file.
MySQL Hostname:	localhost	MySQL server host relative to the SSH server.
MySQL Server Port:	3306	TCP/IP port of the MySQL server.
Username:	globaloms	Name of the user to connect with.
Password:	Store in Vault ... Clear	The MySQL user's password. Will be requested later if not set.
Default Schema:	globaloms	The schema to use as default schema. Leave blank to select it later.

At the bottom of the dialog, there are buttons for 'New', 'Delete', 'Duplicate', 'Move Up', 'Move Down', 'Test Connection', and 'Close'.

OEA1203D-Management of Remote Server Access using SSH Connection



SSH/SQL connection to Live Academy MySQL database

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The screenshot shows the 'Manage Server Connections' dialog box. On the left, a list of MySQL connections is shown, with 'Live Kinsta MySQL Academy' selected. The main area is titled 'Live Kinsta Mysql Academy' and has tabs for 'Connection', 'Remote Management', and 'System Profile'. The 'Connection' tab is active, showing 'Standard TCP/IP over SSH' as the connection method. Below this are three sub-tabs: 'Parameters', 'SSL', and 'Advanced'. The 'Parameters' sub-tab is selected and contains the following fields:

- SSH Hostname: 34.70.86.147:36103 (SSH server hostname, with optional port number.)
- SSH Username: omselearningacademycom (Name of the SSH user to connect with.)
- SSH Password: [Store in Vault ...] [Clear] (SSH user password to connect to the SSH tunnel.)
- SSH Key File: [] [...] (Path to SSH private key file.)
- MySQL Hostname: localhost (MySQL server host relative to the SSH server.)
- MySQL Server Port: 3306 (TCP/IP port of the MySQL server.)
- Username: omselearningacademycom (Name of the user to connect with.)
- Password: [Store in Vault ...] [Clear] (The MySQL user's password. Will be requested later if not set.)
- Default Schema: omselearningacademycom (The schema to use as default schema. Leave blank to select it later.)

At the bottom of the dialog, there are buttons for 'New', 'Delete', 'Duplicate', 'Move Up', 'Move Down', 'Test Connection', and 'Close'.

OEA1203D-Management of Remote Server Access using SSH Connection



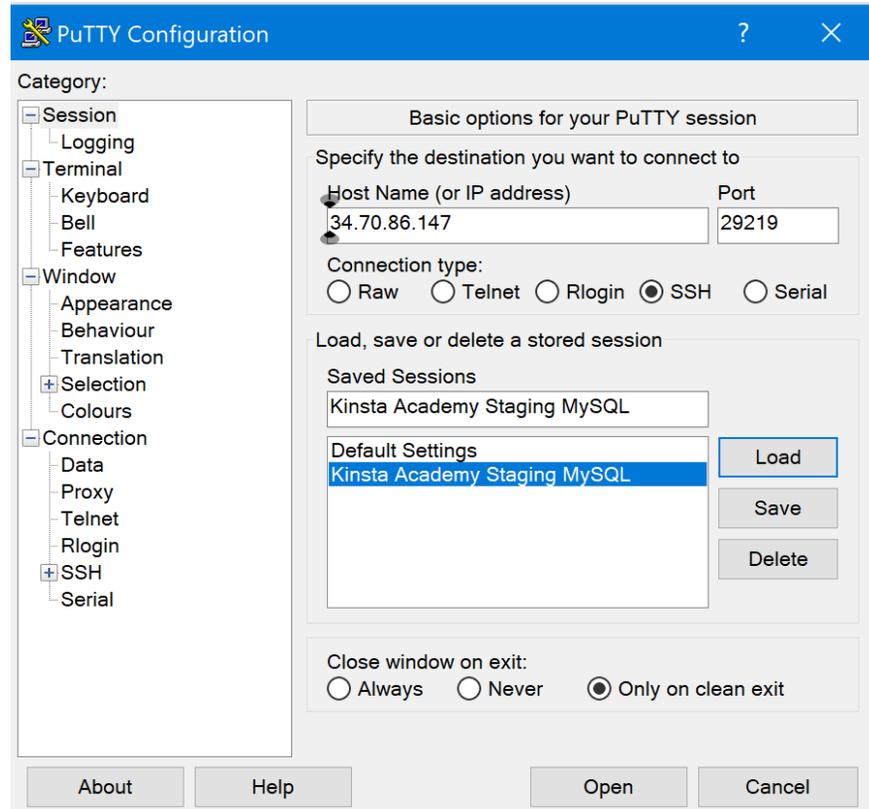
1. Method-1 use PuTTY GUI

- a. Configure SSH and local MYSQL server
- b. Open the PuTTY session
- c. Enter user id and password in the terminal window
- d. Keep the session window open all the time
- e. Create an ODBC and test the connection
- f. Use the connection string in Excel to connect to the database to perform database operations

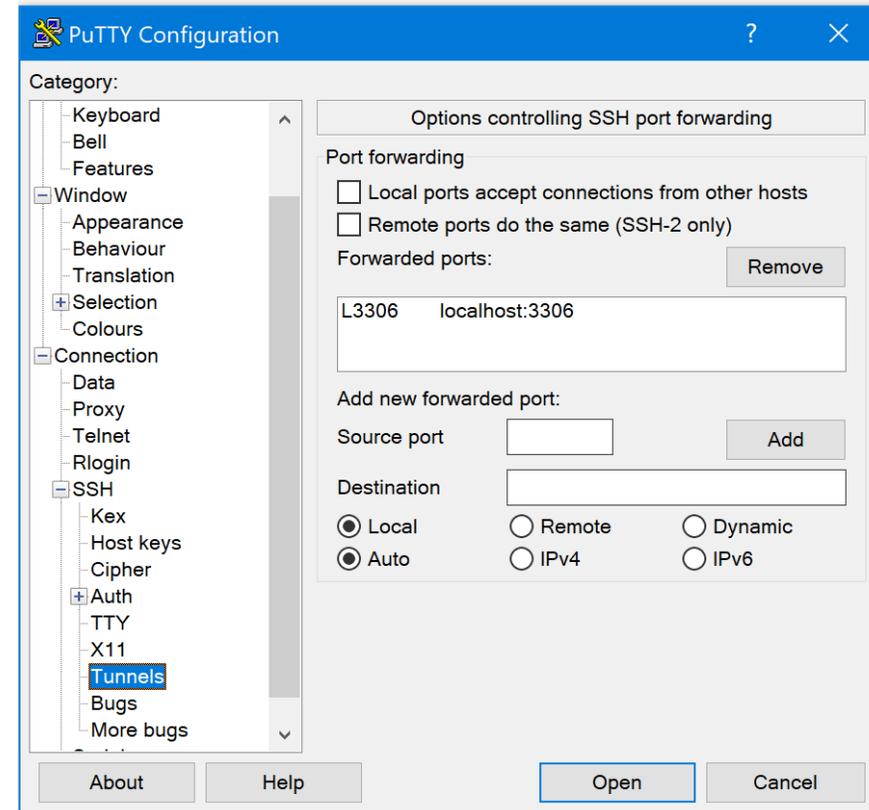


Step-1 Configure and save a PuTTY Session

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Configuration of SSH Connection



Configuration of LYSQL local Server



Step-2/3/4 Open the PuTTY session

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Recent Sessions

- Kinsta Academy Staging MySQL

Tasks

- Run Pageant
- Run PuTTYgen

PuTTY

- Unpin from taskbar
- Close window

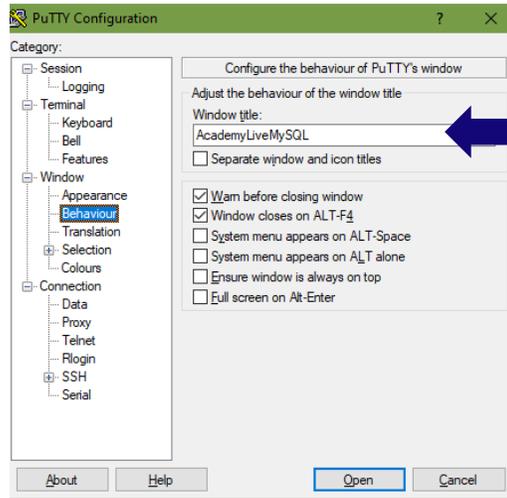
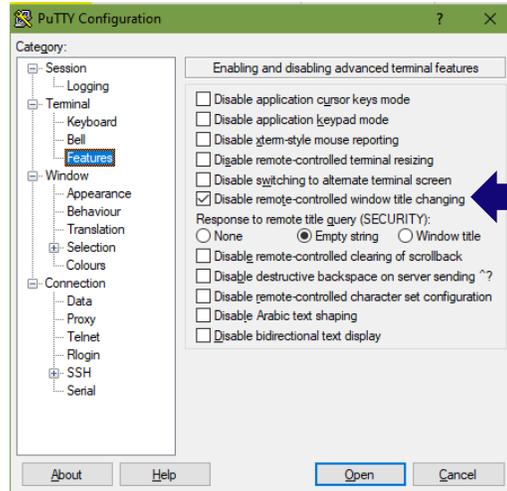
```
omselearningacademycom@WpE-staging-omselearningacademycom: ~  
login as: omselearningacademycom  
omselearningacademycom@34.70.86.147's password:  
Welcome to Ubuntu 20.04.1 LTS (GNU/Linux 5.4.0-1032-gcp x86_64)  
  
[K] [N] [V] [E] [T] [O]  
[L] [I] [N] [E] [X] [T] [O]  
[O]  
  
Hi There!  
Your site's files are in the /www folder.  
Git, Composer and WP-CLI are all available for use!  
If you need help just open a ticket on https://my.kinsta.com  
Have a marvellous day!  
  
* Documentation: https://help.ubuntu.com  
* Management: https://landscape.canonical.com  
* Support: https://ubuntu.com/advantage  
Last login: Wed Jan 13 02:11:28 2021 from 10.240.0.100  
omselearningacademycom@WpE-staging-omselearningacademycom:~$
```

---Staging Academy	
SSH username	omselearningacademycom
SSH password	qZ68718Av7pKBFV
SSH host	34.70.86.147
SSH port	29219
Database username	omselearningacademycom
Database password	KRvWtrj84SyHZLz



Custom SSH Session Window Title

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Step-4 Test the MYSQL ODBC Connection

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The image shows two windows from a Windows operating system. The left window is the 'ODBC Data Source Administrator (64-bit)' with the 'User DSN' tab selected. It displays a list of 'User Data Sources' with 'Academy' selected. The right window is the 'MySQL Connector/ODBC Data Source Configuration' dialog. It shows the 'Connection Parameters' section with the following values: Data Source Name: 'Academy', Description: 'ODBC for MySQL on Kista', TCP/IP Server selected, Server: 'localhost', Port: '3306', User: 'omselearningacademycom', Password: masked with dots, and Database: 'omselearningacademycom'. An orange arrow points from the 'Academy' entry in the ODBC Administrator to the 'Academy' field in the configuration dialog. Another orange arrow points from the 'Test' button in the configuration dialog to a 'Test Result' dialog box on the right, which displays 'Connection Successful' and an 'OK' button.

ADO Connection String

```
DRIVER={MySQL ODBC 8.0 Unicode Driver}; SERVER=localhost; DATABASE=omselearningacademycom;  
USER=omselearningacademycom;PASSWORD=KRvWtrj84SyHZLz;OPTION=3;PORT=3306;
```



Step-5 Access MySQL database in Excel via ADO

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```

'-----
' Procedure Name: cnString
' Purpose:
' Procedure Kind: Sub
' Procedure Access: Public
' Parameter cnStrg ():
' Author: SureshAgrawal
' Date: 1/12/2021
'-----
Public Sub cnString(cnStrg)

rServer = Trim(Sheets("OMSLLC Db Info").Cells(3, 2))
rDSN = Sheets("OMSLLC Db Info").Cells(4, 2)
rDBName = Trim(Sheets("OMSLLC Db Info").Cells(5, 2))
rUID = Sheets("OMSLLC Db Info").Cells(5, 3)
rPwd = Sheets("OMSLLC Db Info").Cells(5, 5)
strSite = Sheets("OMSLLC Db Info").Cells(4, 2)
strDomain = Sheets("OMSLLC Db Info").Cells(4, 3)

'----Open SSH Tunnel-----

' Call ConnectSSH(strSite, strDomain)

'----MySQL-----

cnStrg = "DRIVER={MySQL ODBC 8.0 Unicode Driver};" & _
"SERVER=" & rServer & ";DATABASE=" & rDBName & _
";USER=" & rUID & ";PASSWORD=" & rPwd & ";OPTION=3;PORT=3306;"

End Sub

```



```

Dim strSQL As String
Dim rstTableData As New ADODB.Recordset
Dim DataArr1() As String
Dim cnStrg As String

Dim rs As New ADODB.Recordset

On Error GoTo HandleErr
On Error Resume Next

ActiveSheet.Cells(1, 5) = ActiveWorkbook.FullName

TableName = Trim(ActiveSheet.Cells(2, 2))
Call cnString(cnStrg)
Debug.Print cnStrg

Set oConn = New ADODB.Connection
oConn.Open cnStrg

Sheets(TableName).Select
Range("A5:AZ65000").ClearContents
SortOrder = ActiveSheet.Cells(2, 5)

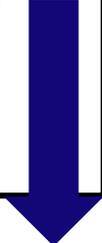
If Sheets(TableName).Cells(4, 3) = "DateRegistered" Then
strSQL = "Select * From " & Trim(TableName) & " A Order BY DateRegistered"
Else
strSQL = "Select * From " & Trim(TableName) & " A Order BY " & SortOrder
End If

Debug.Print strSQL
rs.Open strSQL, cnStrg, adOpenStatic, adLockReadOnly, adCmdText
Set rstTableData = rs

Range("B5").Select

ActiveSheet.CopyFromRecordset rstTableData

```



1	2	3	4	5	6	7	8	9
Date	Data Updated at 1/12/2021 8:28:30 PM			F:\Online Training\Project Management\Management of Academy Topics.xlsxm				
	oea_testdbupdates		ID	getTestDbUpdates	putTestDbUpdates			
Update Field		Y	Y	Y				
	ID	TestText	TestNos	UpdateDate				
	1	Staging Academy Database	1	2021-01-12 10:17:03				
	26	TestText	2	2021-01-12 10:17:03				
	27	Now I am in Business	3	2021-01-12 10:17:04				
	28	testing thru putty	4	2021-01-12 10:17:00				

1. Create a cn String for ADO access

2. Access Database tables

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Summary of PuTTY GUI access Method

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1. It is not fully automated as one has to open the PuTTY session manual and enter user id/password
2. Once the session is opened, it can remain opened until it is closed.
3. All database activities can be carried on with SSH tunnel opened
4. One can create various PuTTY configurations and sessions for each domain/MYSQL servers
5. Excel VBA code can be branched for site/domain SSH connection and respective MYSQL server access



2. Method-2 use Putty.exe and saved Putty Sessions from Excel

- a. Connect from Excel using shell command to open saved PuTTY session
- b. Command line options eliminate prompt
- c. Code VBA logic to find session PID for SSH terminal window to switch between live and staging windows
- d. Kill the other domain window when switching the window as there can not be two SSH sessions connecting to live and staging databases at the same time
- e. Both globaloms and academy databases can not be connected via terminal windows and one of them must be closed before switching the site. This is done automatically in the VBA code.



Command line to start the PuTTY session from Excel

1. PuttyStr = "D:\PuTTY\putty.exe -load *[session name]* -l *[userID]* -pw *[SSH pwd]*"
2. PuttyPID = Shell(PuttyStr, vbMinimizedNoFocus)

Notes:

1. Session name should be without any spaces
2. Shell command will connect to the database without any user prompt
3. There can be only SSH connection at a time with live or staging domains of site
4. VBA code will auto close the window of other SSH window when switching domains (Live or Staging of a site)
5. Two sites can not be connected at same time as well both domains of same site. Hence VBA code is enhanced to ensure that only one window is open at any time for any site and any domain.



VBA code to close and switch SSH terminal window

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```
-----  
' Procedure Name: ConnectSSHPutty  
' Purpose:  
' Procedure Kind: Sub  
' Procedure Access: Public  
' Author: SureshAgrawal  
' Date: 1/12/2021  
-----  
Public Sub ConnectSSHPutty(strSite, strDomain)  
  
    Dim PuttyPID As Double, PuttyLiveHwnd As Long, PuttyStagingHwnd As Long, PuttyHwnd As Long  
    Dim serverName As String, username As String, password As String  
    Dim PuttyLogFile As String  
    Dim PuttyStr As String  
    Dim keyEnter As String  
    On Error Resume Next  
  
    PuttyLogFile = "D:\PuTTY\putty.log" 'folder path and file name of PuTTY session log file, as configured in PuTTY  
  
    If strSite = "Globaloms" Then  
  
        PuttyLiveHwnd = FindWindow(vbNullString, "globaloms@djb-globaloms")  
        PuttyStagingHwnd = FindWindow(vbNullString, "globaloms@WpE-staging-globaloms: ~")  
        Debug.Print PuttyLiveHwnd, PuttyLiveHwnd  
  
        If strDomain = "Live" Then  
            PuttyStr = "D:\PuTTY\Putty.exe -load GlobalomsLiveMySQL -l omselearningacademycom -pw 9LnPM7pAIjmxjO"  
            PuttyHwnd = PuttyStagingHwnd  
  
            If PuttyHwnd <> 0 Then  
                Shell ("C:\Windows\System32\Taskkill /f /im Putty.exe")  
                PuttyHwnd = PuttyLiveHwnd  
            End If  
        Else  
            PuttyStr = "D:\PuTTY\putty.exe -load GlobalomsStagingMySQL -l omselearningacademycom -pw 9LnPM7pAIjmxjO"  
            PuttyHwnd = PuttyLiveHwnd  
  
            If PuttyHwnd <> 0 Then  
                Shell ("C:\Windows\System32\Taskkill /f /im Putty.exe")  
                PuttyHwnd = PuttyStagingHwnd  
            End If  
        End If  
  
    End If  
End Sub
```

```
-----  
If strSite = "Academy" Then  
  
    PuttyLiveHwnd = FindWindow(vbNullString, "omselearningacademycom@djb-omselearningacademycom: ~")  
    PuttyStagingHwnd = FindWindow(vbNullString, "omselearningacademycom@WpE-staging-omselearningacademycom: ~")  
    Debug.Print PuttyLiveHwnd, PuttyLiveHwnd  
  
    If strDomain = "Live" Then  
        PuttyStr = "D:\PuTTY\Putty.exe -load AcademyLiveMySQL -l omselearningacademycom -pw qZ687l8Av7pKBFV"  
        PuttyHwnd = PuttyStagingHwnd  
  
        If PuttyHwnd <> 0 Then  
            Shell ("C:\Windows\System32\Taskkill /f /im Putty.exe")  
            PuttyHwnd = PuttyLiveHwnd  
        End If  
    Else  
        PuttyStr = "D:\PuTTY\putty.exe -load AcademyStagingMySQL -l omselearningacademycom -pw qZ687l8Av7pKBFV"  
        PuttyHwnd = PuttyLiveHwnd  
  
        If PuttyHwnd <> 0 Then  
            Shell ("C:\Windows\System32\Taskkill /f /im Putty.exe")  
            PuttyHwnd = PuttyStagingHwnd  
        End If  
    End If  
  
End If  
  
If PuttyHwnd <> 0 Then  
    GoTo Lastline  
Else  
    Application.Wait (Now + TimeValue("00:00:2"))  
    PuttyPID = Shell(PuttyStr, vbMinimizedNoFocus) 'CHANGE PATH TO .EXE  
End If  
  
Lastline:  
End Sub
```



Method to Connect to MySQL database from Excel

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DateTime	Data Updated at 1/14/2021 8:17:57 PM			F:\Online Training\Project Management\Management of Academy Topics.xlsm			
	oea_testdbupdates			ID	getTestDbUpdates	putTestDbUpdates	
Update Field		Y	Y	Y			
	ID	TestText	TestNos	UpdateDate			
	1	Live MYSQL Database	1	2020-11-08 04:49:06			

```
Public Sub getTestDbUpdates_Click()
' Code Header inserted by the Procedure Header Add-In
' Sheet3.getData_Click
'-----
' Purpose
' Author : Suresh S. Agrawal, 11-20-2007
' Notes :
'-----
' Parameters
'-----
' Returns:
'-----
' Revision History
'-----
' 07-23-2004 MSA:
'-----
' End Code Header block
Dim wkb1 As Workbook
Dim wks1 As Worksheet

On Error GoTo HandleErr
On Error Resume Next

Set wkb1 = Application.Workbooks("Management of Academy Topics.xlsm")
Set wks1 = wkb1.Sheets("oea_testdbupdates")

wks1.Select

Call omsexcel.DBAccess.GetSQLData

Range("A1").Select
```

1. Creates an ADO cn String by a common code

```
Dim strSQL As String
Dim rstTableData As New ADODB.Recordset
Dim DataArr1() As String
Dim cnStrg As String

Dim rs As New ADODB.Recordset

On Error GoTo HandleErr
On Error Resume Next

ActiveSheet.Cells(1, 5) = ActiveWorkbook.FullName

TableName = Trim(ActiveSheet.Cells(2, 2))
Call cnString(cnStrg)
Debug.Print cnStrg

Set oConn = New ADODB.Connection
oConn.Open cnStrg

Sheets(TableName).Select
Range("A5:AZ65000").ClearContents
SortOrder = ActiveSheet.Cells(2, 5)

If Sheets(TableName).Cells(4, 3) = "DateRegistered" Then
strSQL = "Select * From " & Trim(TableName) & " A Order BY DateRegistered"
Else
strSQL = "Select * From " & Trim(TableName) & " A Order BY " & SortOrder
End If

Debug.Print strSQL
rs.Open strSQL, cnStrg, adOpenStatic, adLockReadOnly, adCmdText
Set rstTableData = rs

Range("B5").Select

ActiveCell.CopyFromRecordset rstTableData
```



Creation of ADO connection String

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OMSLLC MySQL Database Informtion		F:\Online Training\Project Management\Mar		
Server	localhost			
DSN	Academy	Live	SSH	MySQL-Live MySQL-Staging
Database	omselearningacademycom	omselearningacademycom	qZ68718Av7pKBFV KRvWtrj84SyHZLz	KRvWtrj84SyHZLz
WorkBook	Z:\Dropbox (Personal)\OMSLLC-Dropbox\OMS-Public Training Courses\Marketing\OMS-Contacts\OMS-eLearning-academy-AllContacts.xlsm			
ODBC Driver	MySQL ODBC 8.0 Unicode Driver			

```
Public Sub cnString(cnStrg)
    rServer = Trim(Sheets("OMSLLC Db Info").Cells(3, 2))
    rDSN = Sheets("OMSLLC Db Info").Cells(4, 2)
    rDBName = Trim(Sheets("OMSLLC Db Info").Cells(5, 2))
    rUID = Sheets("OMSLLC Db Info").Cells(5, 3)
    strSite = Sheets("OMSLLC Db Info").Cells(4, 2)
    strDomain = Sheets("OMSLLC Db Info").Cells(4, 3)

    If strDomain = "Live" Then
        rPwd = Sheets("OMSLLC Db Info").Cells(5, 5)
    Else
        rPwd = Sheets("OMSLLC Db Info").Cells(5, 6)
    End If

    '----Open SSH Tunnel-----
    Call DBAccess.ConnectSSHPlink(strSite, strDomain)
    Call DBAccess.ConnectSSHPutty(strSite, strDomain)

    '----MySQL-----

    cnStrg = "DRIVER={MySQL ODBC 8.0 Unicode Driver};" & _
        "SERVER=" & rServer & ";DATABASE=" & rDBName & _
        ";USER=" & rUID & ";PASSWORD=" & rPwd & ";OPTION=3;PORT=3306;"

End Sub
```

1. MySQL connection parameters are passed thru the common storage area in a worksheet.
2. Domain can be switched in above worksheet and connection is made to e.g. staging by closing the SSH terminal window for "live" window

DateTime	Data Updated at 1/14/2021 8:32:37 PM		F:\Online Training\Project Management\Management\Academy Topics.xlsm	
	oea_testdbupdates		ID	getTestDbUpdates
Update Field		Y	Y	Y
	ID	TestText	TestNos	UpdateDate
	1	Staging Academy Database	1	2021-01-14 14:32:26
	26	TestText	2	2021-01-14 14:32:26
	27	Now I am in Business	3	2021-01-14 14:32:26
	28	testing thru putty	4	2021-01-14 14:32:26
	29	Testing	5	2021-01-14 14:32:26
	30	Again	6	2021-01-14 14:32:27
	31	ok again	7	2021-01-14 14:32:27
	32	Again Again	8	2021-01-14 14:32:02

OEA1203D-Management of Remote Server Access using SSH Connection



Summary

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1. We have developed fully automated system to access MySQL databases in Kinsta.
2. This code will access both sites (globaloms and academy) and their live and staging domain to retrieve and update database tables in Excel.
3. There is no manual intervention required and all parameters are passed thru arguments.
4. We have created four custom named sessions in PuTTY Gui to open them in Excel via shell command.
5. Since only one connection can open in one window, the VBA is developed to close all windows when switching site or domain but remains open for constant access.