

# IMPLEMENTING WEB APPLICATION

Project Date	September 2022
Team ID	PNT2022TMID13786
Project Name	Containment zone alerting application

## Create IBM DB2 And Connect With Python Code:

```
#!/usr/bin/python3

#-----# #
NAME:  ibm_db-connect_SERVER.py                                #
#                                           #
# PURPOSE: This program is designed to illustrate how to use the ibm_db.connect() API to
#
#     establish a connection to a Db2 server.                    #
#                                           #
#     Additional APIs used:                                     #
#     ibm_db.close()                                           #
#                                           #
# USAGE:  Log in as a Db2 database instance user (for example, db2inst1) and issue the
#
#     following command from a terminal window:                  #
#                                           #
#     ./ibm_db-connect_SERVER.py                                #
#                                           #
#-----# #
#     DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY      #
#                                           #
# (C) COPYRIGHT International Business Machines Corp. 2018, 2019 All Rights Reserved
#
# Licensed Materials - Property of IBM                          #
#                                           #
```

```

# US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA
ADP #

# Schedule Contract with IBM Corp. #

# #

# The following source code ("Sample") is owned by International Business Machines
Corporation #

# or one of its subsidiaries ("IBM") and is copyrighted and licensed, not sold. You may use,
#

# copy, modify, and distribute the Sample in any form without payment to IBM, for the
purpose #

# of assisting you in the creation of Python applications using the ibm_db library. #

# #

# The Sample code is provided to you on an "AS IS" basis, without warranty of any kind. IBM
#

# HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED,
INCLUDING, BUT NOT #

# LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A
PARTICULAR PURPOSE. #

# Some jurisdictions do not allow for the exclusion or limitation of implied warranties, so
the #

# above limitations or exclusions may not apply to you. IBM shall not be liable for any
damages #

# you suffer as a result of using, copying, modifying or distributing the Sample, even if IBM
#

# has been advised of the possibility of such damages. #

#-----#

# Load The Appropriate Python Modules

import sys # Provides Information About Python Interpreter Constants, Functions,
& Methods import ibm_db # Contains The APIs Needed To Work With Db2
Databases

#-----#

```

```

# Import The ipynb_exit Class Definition, Attributes, And Methods That Have Been Defined
In The #

# File Named "ipynb_exit.py"; This Class Contains The Programming Logic Needed To Allow
"exit()" #

# Functionality To Work Without Raising An Error Or Stopping The Kernel If The Application
Is #

# Invoked In A Jupyter Notebook # #-----
-----#

from ipynb_exit import exit

# Define And Initialize The Appropriate Variables hostName =
"197.126.80.22" # IP Address Of Remote Server portNum = "50000" # Port
Number That Receives Db2 Connections On The Remote
Server userID = "db2inst2" # The Instance User ID At The Remote Server passWord =
"ibmdb2" # The Password For The Instance User ID At The Remote Server
connectionID = None

# Display A Status Message Indicating An Attempt To Establish A Connection To A Db2
Server

# Is About To Be Made print("\nConnecting to the \" + hostName
+ "\" server ... ", end="")

# Construct The String That Will Be Used To Establish A Db2 Server Connection connString
= "DRIVER={IBM DB2 ODBC DRIVER}"

connString += ";ATTACH=TRUE" # Attach To A Server; Not A Database
connString += ";DATABASE=" # Ignored When Connecting To A Server
connString += ";HOSTNAME=" + hostName # Required To Connect To A Server
connString += ";PORT=" + portNum # Required To Connect To A Server connString
+= ";PROTOCOL=TCPIP" # Required To Connect To A Server connString +=
";UID=" + userID connString += ";PWD=" + passWord

```

# Attempt To Establish A Connection To The Server Specified

try:

```
connectionID = ibm_db.connect(connString, "", "") except
```

Exception:

```
pass
```

# If A Db2 Server Connection Could Not Be Established, Display An Error Message And Exit

if connectionID is None:

```
print("\nERROR: Unable to connect to the \" + hostName + "\" server.")
```

```
print("Connection string used: " + connString + "\n")
```

```
exit(-1)
```

# Otherwise, Complete The Status Message

else:

```
print("Done!\n")
```

# Add Additional Db2 Server-Related Processing Here ...

# For Example, `ibm_db.createdb()`, `ibm_db.createdbNX()`, `ibm_db.recreatedb()`,  
`ibm_db.dropdb()`

# Attempt To Close The Db2 Server Connection That Was Just Opened if not

connectionID is None:

```
print("Disconnecting from the \" + hostName + "\" server ... ", end="")
```

try:

```
returnCode = ibm_db.close(connectionID) except
```

Exception:

```
pass
```

# If The Db2 Server Connection Was Not Closed, Display An Error Message And Exit

if returnCode is False:

```
print("\nERROR: Unable to disconnect from the " + hostName + " server.")  
exit(-1)
```

```
# Otherwise, Complete The Status Message
```

```
else:
```

```
    print("Done!\n")
```

```
# Return Control To The Operating System
```

```
exit()
```