STEPS TO CREATE IBM DB2 AND CONNECTION WITH PYTHON
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STEP 1: Import the ibm_db Python library:

```
!pip install --force-reinstall ibm_db==3.1.0 ibm_db_sa==0.3.7

importibm_db
```

STEP 2: Identify the database connection credentials:

```
dsn_hostname = "1bbf73c5-d84a-4bb0-85b9-ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud"
dsn_uid = "grg48882" dsn_pwd = "KXk2GIAl1vq8ZGSO" dsn_driver = "{IBM DB2 ODBC DRIVER}" dsn_database = "BLUDB"# e.g. "BLUDB" dsn_port = "32328"  # e.g. "32733" dsn_protocol = "TCPIP"  # i.e. "
```

STEP 3: Create the DB2 database connection:

```
dsn = (
   "DRIVER={0};"
   "DATABASE={1};"
   "HOSTNAME={2};"
   "PORT={3};"
   "PROTOCOL={4};"
   "UID={5};"
   "PWD={6};"
   "SECURITY={7};").format(dsn_driver, dsn_database, dsn_hostname, dsn_port, dsn_protocol, dsn_uid, dsn_pwd,dsn_security) print(dsn)
```

Now establish the connection to the database

```
try:
   conn = ibm_db.connect(dsn, "", "")      print ("Connected to database: ", dsn_database, "as user:", dsn_uid, "on host: ", dsn_hostname)


except:
   print ("Unable to connect: ", ibm_db.conn_errormsg() )
```

```
server = ibm_db.server_info(conn)

print ("DBMS_NAME: ", server.DBMS_NAME) print ("DBMS_VER: ", server.DBMS_VER) print ("DB_NAME: ", server.DB_NAME)

client = ibm_db.client_info(conn)

print ("DRIVER_NAME: ", client.DRIVER_NAME)
print("DRIVER_VER: ", client.DRIVER_VER)
print ("DATA_SOURCE_NAME: ", client.DATA_SOURCE_NAME) print ("DRIVER_ODBC_VER: ", client.DRIVER_ODBC_VER) print ("ODBC_VER: ", client.ODBC_VER)
print ("ODBC_SQL_CONFORMANCE: ", client.ODBC_SQL_CONFORMANCE)
print ("APPL_CODEPAGE: ", client.APPL_CODEPAGE)
print("CONN_CODEPAGE: ", client.CONN_CODEPAGE)
```

STEP 4: Close the Connection:

```
ibm_db.close(conn)
```