

## 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
```

```
import ibm_db
```

#### STEP 2: Identify the database connection credentials:

```
dsn_hostname = "2d46b6b4-cbf6-40eb-bbce-6251e6ba0300.bs2io90l08kqb1od8lcg.databases.appdomain.cloud"
```

```
dsn_uid = "vjd29721"    dsn_pwd = "6TTgx8MRBzT45o3q"
```

```
dsn_driver = "{IBM DB2 ODBC DRIVER}" dsn_database = "BLUDB"
```

```
# e.g. "BLUDB" dsn_port = "32328"          # e.g. "32733"
```

```
dsn_protocol = "TCPIP"      # i.e. "TCPIP" dsn_security = "SSL"
```

```
#i.e. "SSL"
```

#### 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)
```