STEPS TO CREATE IBM DB2 AND CONNECTION WITH PYTHON

Date	18 November 2022
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Project Name	Skills/Job Recommender Application

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:

```
"connection": {
  "cli": {
   "arguments": [
     "-u",
     "mzw99208",
     "-p",
    "X50Cas8TwAsNxiZ9",
     "--ssl",
     "--sslCAFile",
     "1cbbb1b6-3a1a-4d49-9262-3102a8f7a7c8",
     "--authenticationDatabase",
    "admin",
     "--host",
     "54a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud:32
733"
   ]
   "bin": "db2".
   "certificate": {
```

"certificate_base64": "LS0tLS1CRUd|TiBDRV|USUZ|Q0FURS0tLS0tCk1|SURFakNDQWZxZ0F3SU|BZ 0lKQVA1S0R3ZTNCTkxiTUEwR0NTcUdTSWIzRFFFQkN3VUFNQjR4SERBYUJnTlYKQkFNTUUwbENUU0 JEYkc5MVpDQkVZWFJoWW1GelpYTXdIaGNOTWpBd01qSTVNRFF5TVRBeVdoY05NekF3TWpJMgpNRF F5TVRBeVdqQWVNUnd3R2dZRFZRUUREQk5KUWswZ1EyeHZkV1FnUkdGMFlXSmhjMlZ6TUlJQklqQU5 CZ2txCmhraUc5dzBCQVFFRkFBT0NBUThBTUlJQkNnS0NBUUVBdXUvbitpWW9xdkdGNU8xSGpEalpsK2 5iYiE4UkR4ZGwKTzRUL3FoUGMxMTREY1FUK0plRXdhdG13aGljTGxaQnF2QWFMb1hrbmhqSVFOMG01L0x5YzdBY291VXNmSGR0QwpDVGcrSUsxbjBrdDMrTHM3d1dTakxqVE96N3M3MlZUSU5yYmx3cnRI RUlvM1JWTkV6SkNHYW5LSXdZMWZVSUtrCldNMlR0SDl5cnFsSGN0Z2pIUlFmRkVTRmlYaHJi0DhSQm d0amIva0xtVGpCaTFBeEVadWNobWZ2QVRmNENOY3EKY21QcHNqdDBPTnI0YnhJMVRyUWxEemNiN 1hMSFBrWW91SUprdnVzMUZvaTEySmRNM1MrK3labFZPMUZmZkU3bwpKMjhUdGJoZ3JGOGtIU0NMS kJvTTFSZ3FPZG90Vm5Q0C9E0WZhamNNN0lWd2V4a0lSOTNKR1FJREFRQUJvMU13ClVUQWRCZ05WS FE0RUZnUVVlQ3JZanFJQzc1VUpxVmZEMDh1ZWdqeDZiUmN3SHdZRFZSMGpCQmd3Rm9BVWVDclkKa nFJQzc1VUpxVmZEMDh1ZWdqeDZiUmN3RHdZRFZSMFRBUUgvQkFVd0F3RUIvekF0QmdrcWhraUc5dz BCQVFzRgpBQU9DQVFFQUkyRTBUOUt3MlN3RjJ2MXBqaHV4M0lkWWV2SGFVSkRMb0tPd0hSRnFSOH gxZ2dRcGVEcFBnMk5SCkx3R08yek85SWZUMmhLaWd1d2orWnJ5SGxxcHlxQ0pLOHJEU28xZUVPekIy WmE2S1YrQTVscEttMWdjV3VHYzMKK1UrVTFzTDdlUjd3ZFFuVjU0TVU4aERvNi9sVHRMRVB2Mnc3Vl NPSIFDK013ejgrTFJMdjVHSW5BNlJySWNhKwozM0wxNnB4ZEttd1pLYThWcnBnMXJ3QzRnY3dlYUhYM UNEWE42K0JIbzhvWG5YWkh6UG91cldYS1BoaGdXZ2J5CkNDcUdIK0NWNnQ1eFg3b05NS3VNSUNqRV

```
ZndnNLWnRqeTQ5VW5iNVZZbHQ0b1|3dTFlbGdzRDNjekltbjlLREQKNHB1REFvYTZyMktZZE4xVkxuN3
F3VG1TbDlTU05RPT0KLS0tLS1FTkQgQ0VSVElGSUNBVEUtLS0tLQo=",
   "name": "1cbbb1b6-3a1a-4d49-9262-3102a8f7a7c8"
  "composed": [
   "db2 -u mzw99208 -p X50Cas8TwAsNxiZ9 --ssl --sslCAFile 1cbbb1b6-3a1a-4d49-9262-3102a8f7a
7c8 --authenticationDatabase admin --host 54a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3sd0tgtu0lq
de00.databases.appdomain.cloud:32733"
  "environment": {},
  "type": "cli"
 "db2": {
  "authentication": {
   "method": "direct",
   "password": "X50Cas8TwAsNxiZ9",
   "username": "mzw99208"
   certificate": {
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RUlvM1JWTkV6SkNHYW5LSXdZMWZVSUtrCldNMlR0SDl5cnFsSGN0Z2pIUlFmRkVTRmlYaHJi0DhSQm
d0amIva0xtVGpCaTFBeEVadWNobWZ2QVRmNENOY3EKY21QcHNqdDBPTnI0YnhJMVRyUWxEemNiN
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WmE2S1YrQTVscEttMWdjV3VHYzMKK1UrVTFzTDdlUjd3ZFFuVjU0TVU4aERvNi9sVHRMRVB2Mnc3Vl
NPSIFDK013ejgrTFJMdjVHSW5BNlJySWNhKwozM0wxNnB4ZEttd1pLYThWcnBnMXJ3QzRnY3dlYUhYM
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   "name": "1cbbb1b6-3a1a-4d49-9262-3102a8f7a7c8"
  },
  "composed": [
   "db2://mzw99208:X50Cas8TwAsNxiZ9@54a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3sd0tgtu
Olgde00.databases.appdomain.cloud:32733/bludb?authSource=admin&replicaSet=replset"
  "database": "bludb",
  "host ros": [
   "54a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud:305
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ain.cloud",
    "port": 32733
   }
  "idbc_url": [
   "jdbc:db2://54a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomai
n.cloud:32733/bludb:user=<userid>;password=<your_password>;sslConnection=true;"
```

```
"path": "/bludb",
              "query_options": {
                  "authSource": "admin",
                  "replicaSet": "replset"
              "replica_set": "replset",
              "scheme": "db2",
               "type": "uri"
        }
     },
     "instance_administration_api": {
        "deployment\_id": "crn:v1: bluemix: public: dashdb-for-transactions: us-south: a/e6391f45 afa647b8 ae 1-constant and transactions and transactions are also below the constant and transactions are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constant and the constant are also below to the constan
9f77ecfab2ec0:afb2bc32-4b27-4bac-8318-9379cd61e6d5::",
          "instance_id": "crn:v1:bluemix:public:dashdb-for-transactions:us-south:a/e6391f45afa647b8ae19f77
ecfab2ec0:afb2bc32-4b27-4bac-8318-9379cd61e6d5::",
          "root": "https://api.db2.cloud.ibm.com/v5/ibm"
  }
```

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:
```

	b.connect(dsn, "", "")	
", dsn_uid, "on host: ", dsn_hostname)		
except:		
print ("Un	able to connect: ", ibm_dl	b.conn_errormsg()

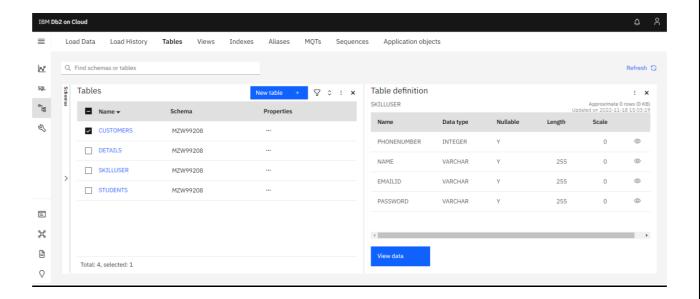
```
server = ibm_db.server_info(conn)
 print ("DBMS_NAME: ", server.DBMS_NAME)
 print ("DBMS_VER: ", server.DBMS_VER)
 print ("DB_NAME: ", server.DB_NAME)
 client = ibm_db.client_info(conn)
                          ", client.DRIVER_NAME) print
 print ("DRIVER NAME:
                              ", client.DRIVER_VER) print
 ("DRIVER VER:
 ("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:

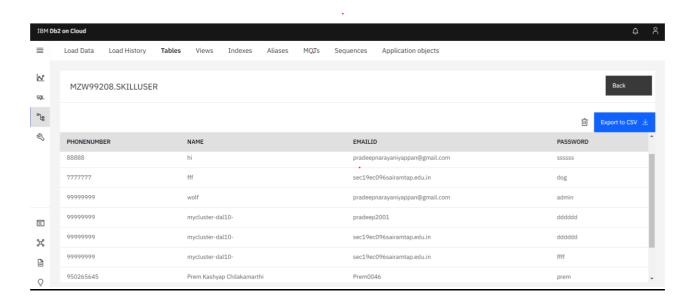
ibm_db.close(conn)

STEP 5: Integration of ibm db2 in flask app:

```
def dashhome():
 insert_sql = "INSERT INTO SKILLUSER (EMAILID, PASSWORD, NAME, PHONENUMBER) VALUES (?,?,?)"
 prep_stmt = ibm_db.prepare(conn, insert_sql)
 email = request.form['username']
 password= request.form['password']
 name = request.form['name']
 ph = request.form['phonenum']
 var_list.append(email)
 var_list.append(password)
 var_list.append(name)
 var_list.append(ph)
 ibm_db.bind_param(prep_stmt, 1, ph)
 ibm_db.bind_param(prep_stmt, 2, name)
  ibm_db.bind_param(prep_stmt, 3, email)
 ibm_db.bind_param(prep_stmt, 4, password)
 print("giun")
  ibm_db.execute(prep_stmt)
  return render template('email.html')
```

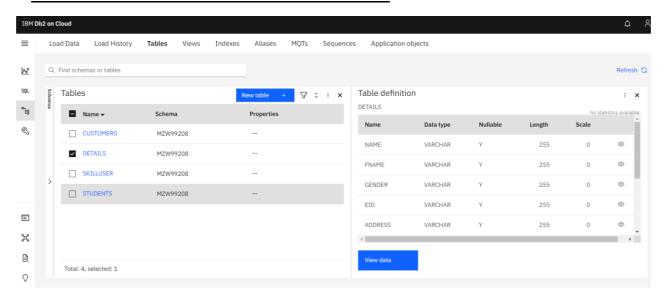


DATA INTEGRATION IN TABLE SKILLUSER

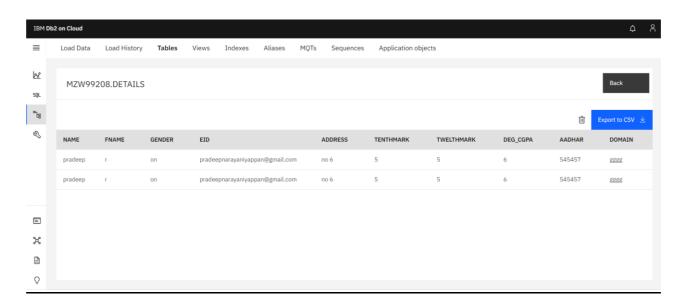


```
prep_stmt = ibm_db.prepare(conn, insert_sql)
name = request.form['yourname']
fname = request.form['fname']
GD = request.form['GD']
EID = request.form['EID']
add = request.form['AL1']
mark1 = request.form['s5
mark2 = request.form['h5']
cgpa = request.form['b5']
AADHAR = request.form['Aadhar']
DOMAIN = request.form['domain']
ibm_db.bind_param(prep_stmt, 1, name)
ibm_db.bind_param(prep_stmt, 2, fname)
ibm_db.bind_param(prep_stmt, 3, GD)
ibm_db.bind_param(prep_stmt, 4, EID)
ibm_db.bind_param(prep_stmt, 5, add)
ibm_db.bind_param(prep_stmt,6, mark1)
ibm_db.bind_param(prep_stmt,7, mark2)
ibm_db.bind_param(prep_stmt, 8, cgpa)
ibm_db.bind_param(prep_stmt, 9, AADHAR)
ibm_db.bind_param(prep_stmt, 10, DOMAIN)
```

TABLE VALUES FOR DETAILS TABLE IN IBMDB2



DATA INTEGRATION FOR DETAILS TABLE



Output on Creating tables using sqllite in DB2

