

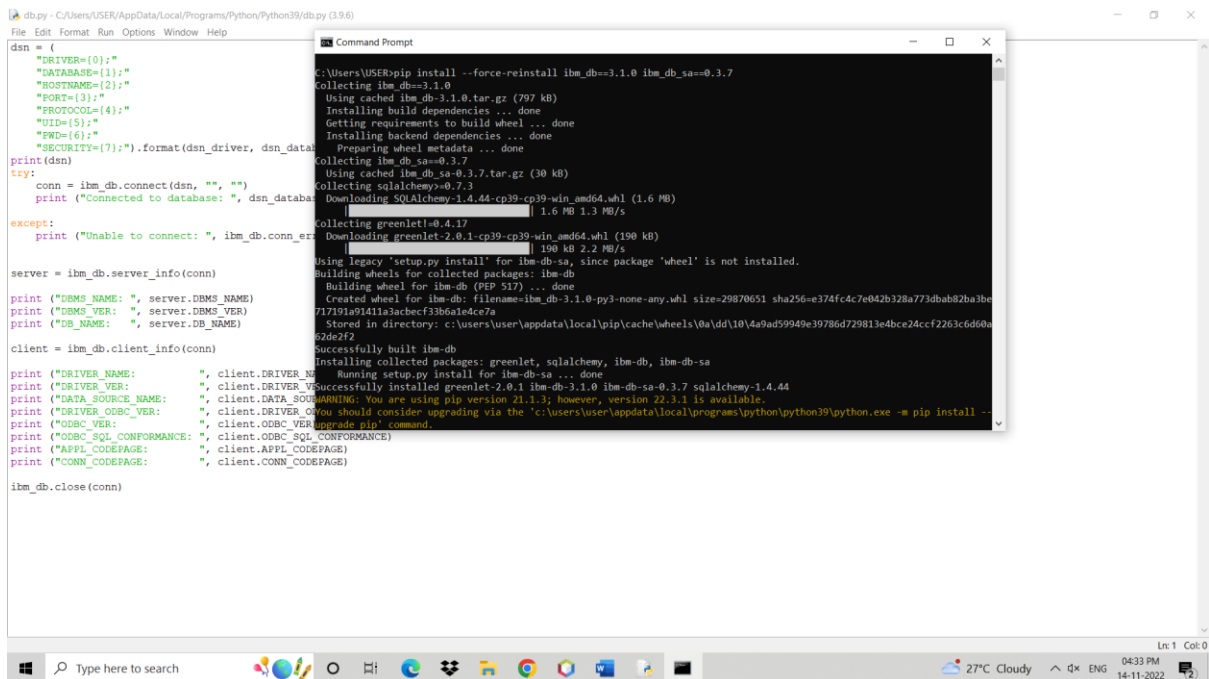
# IMPLEMENTING WEB APPLICATION

## CREATE IBM DB2 AND CONNECT WITH PYTHON

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TEAM ID	PNT2022TMID12404
PROJECT NAME	Nutrition Assistant Application

### STEP 1: Import the ibm\_db Python library

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



The screenshot shows a Python script in a text editor and a Command Prompt window. The Python script defines a DSN dictionary with fields DRIVER, DATABASE, HOSTNAME, PORT, PROTOCOL, UID, PW, and SECURITY, and attempts to connect to an IBM DB2 database using the ibm\_db and ibm\_db\_sa libraries. The Command Prompt window shows the execution of the pip install command, which successfully installs the required packages. The output of the Command Prompt is as follows:

```
C:\Users\USER>pip install --force-reinstall ibm_db==3.1.0 ibm_db_sa==0.3.7
Collecting ibm_db==3.1.0
  Using cached ibm_db-3.1.0.tar.gz (797 kB)
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Installing backend dependencies ... done
  Preparing wheel metadata ... done
Collecting ibm_db_sa==0.3.7
  Using cached ibm_db_sa-0.3.7.tar.gz (30 kB)
Collecting sqlalchemy>=0.7.3
  Downloading SQLAlchemy-1.4.44-cp39-cp39-win_amd64.whl (1.6 MB)
    | 1.6 MB 1.3 MB/s
Collecting greenlet<=0.4.17
  Downloading greenlet-2.0.1-cp39-cp39-win_amd64.whl (190 kB)
    | 190 kB 2.2 MB/s
Using legacy 'setup.py install' for ibm-db-sa, since package 'wheel' is not installed.
Building wheels for collected packages: ibm-db
  Building wheel for ibm-db (PEP 517) ... done
  Created wheel for ibm-db: filename=ibm_db-3.1.0-py3-none-any.whl size=29870651 sha256=e374fc47e042b328a773dbab82ba3be717191a91411a3acbf33b6a1dc7a
  Stored in directory: c:\users\user\appdata\local\pip\cache\wheels\0a\dd\10\4a9ad59949e39786d729813e4bce24ccf2263c6d60a63de2f2
Successfully built ibm-db
Installing collected packages: greenlet, sqlalchemy, ibm-db, ibm-db-sa
  Running setup.py install for ibm-db-sa ... done
Successfully installed greenlet-2.0.1 ibm-db-3.1.0 ibm-db-sa-0.3.7 sqlalchemy-1.4.44
WARNING: You are using pip version 21.1.3; however, version 22.3.1 is available.
You should consider upgrading via the 'c:\users\user\appdata\local\programs\python\python39\python.exe -m pip install --upgrade pip' command.
```

### STEP 2: 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)
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)
ibm_db.close(conn)

```