

ASSIGNMENT NO 2

NAME: RN.PRANESH

PROJECT: NUTRITION ASSISTANT APPLICATION

PROJECT ID: PNT2022TMID19500

.....

1. Create 5 tables in ibm db2 and insert data by using insert query.

TABLE NO 1:

INSERT INTO TABLENO1

VALUES

(1414,'PRANESH',40000),

(1415,'NISHANTH',40000),

(1416,'BHARATH',40000),

(1417,'RANJITHA',40000);

Service Details - IBM Cloud x IBM Db2 on Cloud x (3) WhatsApp x New Tab x +

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F1c6521e8ed144cb9aed5dd7caf84d58%3A56f8e94...

IBM Db2 on Cloud

Data objects My script

Filter objects

FLJ92016

Tables

TABLENO1

Views

MQTs

Aliases

Nicknames

Untitled - 2 x *Untitled - 1 *Untitled - 3 *Untitled - 4 +

Beta Classic

Syntax assistant Run all

```
1 INSERT INTO TABLENO1
2 VALUES
3 (1414,'PRANESH',40000),
4 (1415,'NISHANTH',40000),
5 (1416,'BHARATH',40000),
6 (1417,'RANJITHA',40000);
7
```

History

Find history

Script	Date	Status	Runtime
INSERT INTO TABLENO2 VALUES (0,'PRANESH','MALE','ALLERGY'), (9,'NISHANTH','_		✓	0.009 s
^ Untitled - 2	Sep 28, 2022 11:29:35 AM	✓ 1	0.007 s
INSERT INTO TABLENO1 VALUES (1414,'PRANESH',40000), (1415,'NISHANTH',40000)_		✓	0.007 s
^ Untitled - 1	Sep 28, 2022 11:13:03 AM	✓ 1	0.008 s
INSERT INTO TABLENO1 VALUES (1414,'PRANESH',40000), (1416,'BHARATH',40000),_		✓	0.008 s

90°F Mostly cloudy

11:49 AM 28-Sep-22

Service Details - IBM Cloud x IBM Db2 on Cloud x (3) WhatsApp x New Tab x +

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F1c6521e8ed144cb9aed5dd7caf84d58%3A56f8e94...

IBM Db2 on Cloud

Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

FLJ92016.TABLENO1

Back

Export to CSV

ID	EMPNAME	SALARY
1414	PRANESH	40000
1415	NISHANTH	40000
1416	BHARATH	40000
1417	RANJITHA	40000

90°F Mostly cloudy

11:59 AM 28-Sep-22

TABLE NO 2

INSERT INTO TABLENO2

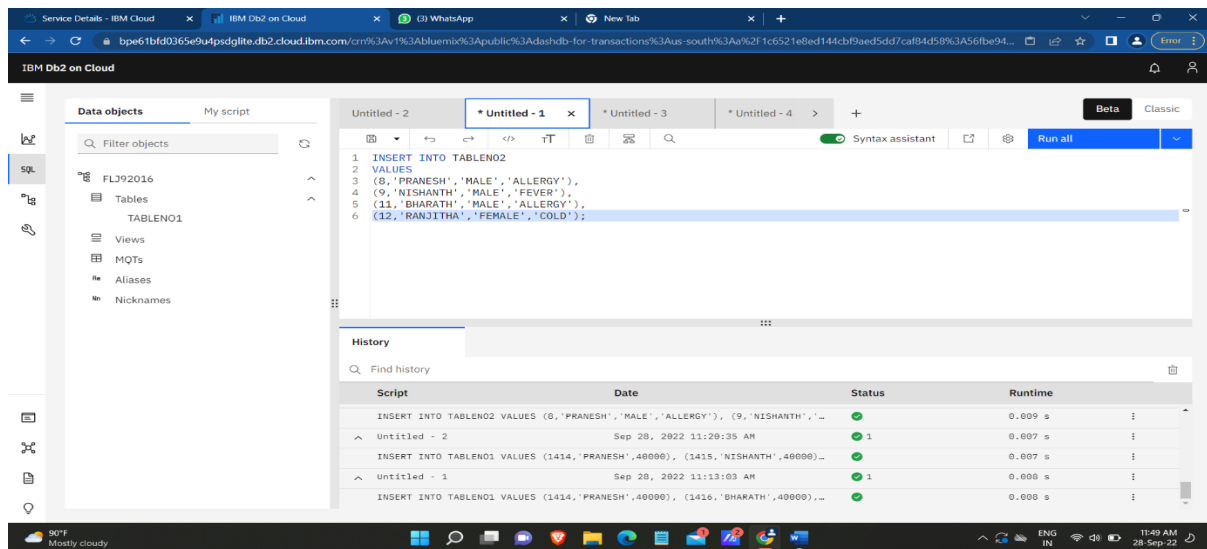
VALUES

(8,'PRANESH','MALE','ALLERGY'),

(9,'NISHANTH','MALE','FEVER'),

(11,'BHARATH','MALE','ALLERGY'),

(12,'RANJITHA','FEMALE','COLD');



The screenshot shows the IBM Db2 on Cloud console displaying the data in the 'TABLENO2' table. The table has the following structure and data:

MONTH	NAME	GENDER	TREATMENT
8	PRANESH	MALE	ALLERGY
9	NISHANTH	MALE	FEVER
11	BHARATH	MALE	ALLERGY
12	RANJITHA	FEMALE	COLD

TABLE NO 3

INSERT INTO TABLENO3

VALUES

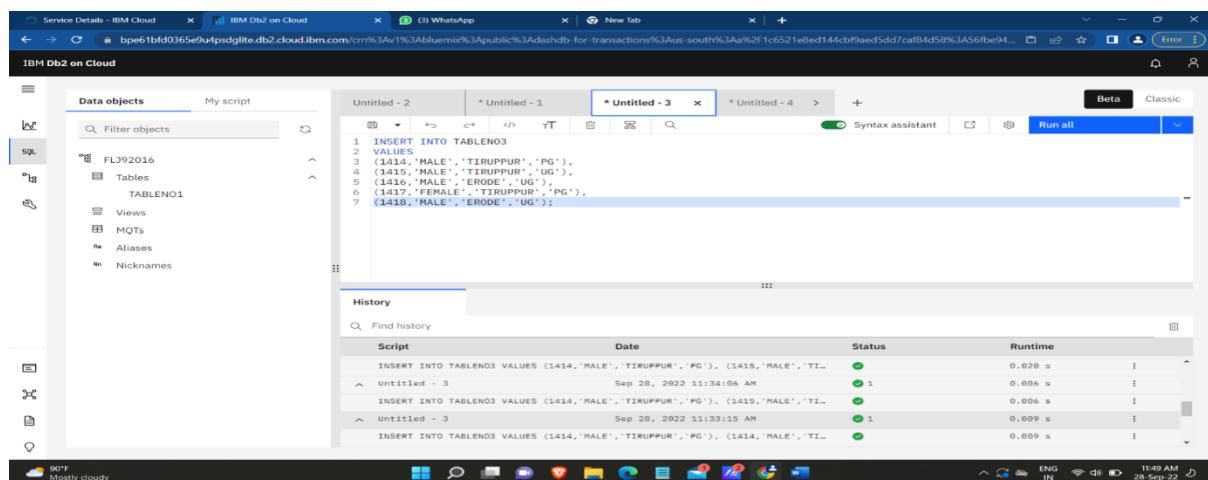
(1414,'MALE','TIRUPPUR','PG'),

(1415,'MALE','TIRUPPUR','UG'),

(1416,'MALE','ERODE','UG'),

(1417,'FEMALE','TIRUPPUR','PG'),

(1418,'MALE','ERODE','UG');



The screenshot shows the IBM Db2 on Cloud console interface displaying the data in the 'TABLENO3' table. The table has the following columns: ID, GENDER, LOCATION, and EDUCATION. The data is as follows:

ID	GENDER	LOCATION	EDUCATION
1414	MALE	TIRUPPUR	PG
1415	MALE	TIRUPPUR	UG
1416	MALE	ERODE	UG
1417	FEMALE	TIRUPPUR	PG
1418	MALE	ERODE	UG

TABLE NO 4

INSERT INTO TABLENO4

VALUES

(2023,'TECH','PRANESH','LEADER',085),

(2023,'TECH','NISHANTH','TEAMMEMBER',073),

(2023,'TECH','BHARATH','TEAMMEMBER',009),

(2023,'TECH','RANJITH','TEAMMEMBER',087),

(2023,'TECH','VIJAY','TEAMMEMBER',114);

The screenshot shows the IBM Db2 on Cloud console. The left sidebar displays the 'Data objects' tree with 'FLJ92016' and 'TABLENO1'. The main area shows the SQL editor with the following script:

```
1 INSERT INTO TABLENO4
2 VALUES
3 (2023,'TECH','PRANESH','LEADER',085),
4 (2023,'TECH','NISHANTH','TEAMMEMBER',073),
5 (2023,'TECH','BHARATH','TEAMMEMBER',009),
6 (2023,'TECH','RANJITH','TEAMMEMBER',087),
7 (2023,'TECH','VIJAY','TEAMMEMBER',114);
```

Below the editor is a 'History' table:

Script	Date	Status	Runtime
Untitled - 5	Sep 28, 2022 11:47:49 AM	✓ 1	0.095 s
INSERT INTO TABLENO5 VALUES (1414679,46,45,5458456), (1415445,45,34,4564846...		✓	0.095 s
Untitled - 4	Sep 28, 2022 11:43:24 AM	✓ 1	0.091 s
INSERT INTO TABLENO4 VALUES (2023,'TECH','PRANESH','LEADER',085), (2023,'TE...		✓	0.091 s
Untitled - 4	Sep 28, 2022 11:42:41 AM	✗ 1	0.015 s

The screenshot shows the IBM Db2 on Cloud console with the 'Tables' view selected. The table 'FLJ92016.TABLENO4' is displayed with the following data:

YEAR	TEAMNAME	MEMBERNAME	POSITION	NO.
2023	TECH	PRANESH	LEADER	85
2023	TECH	VIJAY	TEAMMEMBER	114
2023	TECH	RANJITH	TEAMMEMBER	87
2023	TECH	BHARATH	TEAMMEMBER	9
2023	TECH	NISHANTH	TEAMMEMBER	73

TABLE NO 5

INSERT INTO TABLENO5

VALUES

(1414678,46,45,5458456),

(1415445,45,34,4564846),

(1416553,79,79,4564564),

(1417464,456,54,654565),

(1418545,464,98,557455);

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' panel displays a tree structure with 'FLJ92016' and 'TABLENO1'. The main area shows a SQL script editor with the following code:

```
1 INSERT INTO TABLENO5
2 VALUES
3 (1414678,46,45,5458456),
4 (1415445,45,34,4564846),
5 (1416553,79,79,4564564),
6 (1417464,456,54,654565),
7 (1418545,464,98,557455);
```

Below the script editor, the 'History' tab shows a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 5	Sep 28, 2022 11:47:49 AM	1	0.095 s
INSERT INTO TABLENO5 VALUES (1414678,46,45,5458456), (1415445,45,34,4564846...			0.095 s
Untitled - 4	Sep 28, 2022 11:43:24 AM	1	0.091 s
INSERT INTO TABLENO4 VALUES (2023,'TECH','PRANESH','LEADER',085), (2023,'TE...			0.091 s
Untitled - 4	Sep 28, 2022 11:42:41 AM	1	0.015 s

The screenshot shows the IBM Db2 on Cloud console interface displaying the data in the 'TABLENO5' table. The table has the following columns: PRODUCT_ID, QUANTITY, ITEMTOTAL, and CUSTOMER_ID. The data is as follows:

PRODUCT_ID	QUANTITY	ITEMTOTAL	CUSTOMER_ID
1414678	46	45	5458456
1415445	45	34	4564846
1416553	79	79	4564564
1417464	456	54	654565
1418545	464	98	557455

2. Perform UPDATE, DELETE queries in 5 tables:

TABLE NO 1

UPDATE TABLENO1

SET EMPNAME='SANJAY'

WHERE ID=1414;

The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' panel shows a tree structure with 'FLJ92016' containing 'Tables', 'Views', 'MQTs', 'Aliases', and 'Nicknames'. The 'Tables' folder is expanded, showing 'TABLENO1'. The main editor area shows a SQL script in a tab titled '*Untitled - 2'. The script contains three lines: '1 UPDATE TABLENO1', '2 SET EMPNAME='SANJAY'', and '3 WHERE ID=1414;'. Below the script, a 'History' table lists recent queries. The first entry is 'INSERT INTO TABLENO3 VALUES (1414, 'MALE', 'TIRUPPUR', 'PG')', which failed with a red status icon. The subsequent two entries, 'Untitled - 1' and 'Untitled - 2', both show successful execution with green status icons and a runtime of 0.009 s and 0.007 s respectively.

Script	Date	Status	Runtime
INSERT INTO TABLENO3 VALUES (1414, 'MALE', 'TIRUPPUR', 'PG')	Sep 28, 2022 11:27:56 AM	❌	0.022 s
Untitled - 1	Sep 28, 2022 11:27:56 AM	✅	0.009 s
INSERT INTO TABLENO2 VALUES (0, 'PRANESH', 'MALE', 'ALLERGY'), (9, 'NISHANTH', 'MALE', 'ALLERGY')	Sep 28, 2022 11:28:35 AM	✅	0.009 s
Untitled - 2	Sep 28, 2022 11:28:35 AM	✅	0.007 s
INSERT INTO TABLENO1 VALUES (1414, 'PRANESH', 40000), (1415, 'NISHANTH', 40000), (1416, 'BHARATH', 40000), (1417, 'RANJITHA', 40000)	Sep 28, 2022 11:28:35 AM	✅	0.007 s

The screenshot shows the IBM Db2 on Cloud console with the 'Tables' tab selected. The table 'FLJ92016.TABLENO1' is displayed. The table has three columns: 'ID', 'EMPNAME', and 'SALARY'. The data is as follows:

ID	EMPNAME	SALARY
1414	SANJAY	40000
1415	NISHANTH	40000
1416	BHARATH	40000
1417	RANJITHA	40000

The 'Export to CSV' button is visible in the top right corner of the table view.

TABLE NO 2

UPDATE TABLENO2

SET NAME = 'SARAN'

WHERE TREATMENT='FEVER';

DELETE FROM TABLENO2

WHERE NAME = 'RANJITHA';

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' panel lists 'FLJ92016' with sub-items 'Tables' (containing 'TABLENO1') and 'Views'. The main area displays a SQL script in a text editor with the following content:

```
1 UPDATE TABLENO2
2 SET NAME = 'SARAN'
3 WHERE TREATMENT='FEVER';
4
5 DELETE FROM TABLENO2
6 WHERE NAME = 'RANJITHA';
```

Below the script editor is a 'History' table showing execution logs:

Script	Date	Status	Runtime
INSERT INTO TABLENO3 VALUES (1414,, 'MALE', 'TIRUPPUR', 'PG'), (1414,, 'MALE', '...		❌	0.022 s
Untitled - 1	Sep 28, 2022 11:27:56 AM	✅ 1	0.009 s
INSERT INTO TABLENO2 VALUES (0, 'PRANESH', 'MALE', 'ALLERGY'), (9, 'NISHANTH', '...		✅	0.009 s
Untitled - 2	Sep 28, 2022 11:28:35 AM	✅ 1	0.007 s
INSERT INTO TABLENO1 VALUES (1414, 'PRANESH', 40090), (1415, 'NISHANTH', 40090)...		✅	0.007 s

The screenshot shows the IBM Db2 on Cloud console displaying the contents of the 'TABLENO2' table. The table has four columns: 'MONTH', 'NAME', 'GENDER', and 'TREATMENT'. The data is as follows:

MONTH	NAME	GENDER	TREATMENT
8	PRANESH	MALE	ALLERGY
9	SARAN	MALE	FEVER
11	BHARATH	MALE	ALLERGY

TABLE NO 3:

UPDATE TABLENO3

SET ID = 3456 WHERE GENDER = 'FEMALE';

DELETE FROM TABLENO3

WHERE ID = 1416;

The screenshot shows the IBM Db2 on Cloud console interface. The left sidebar displays the 'Data objects' tree with 'FLJ92016' expanded, showing 'Tables' and 'TABLENO1'. The main area shows a script editor with the following SQL commands:

```
1 UPDATE TABLENO3
2 SET ID = 3456 WHERE GENDER = 'FEMALE';
3
4 DELETE FROM TABLENO3
5 WHERE ID = 1416;
```

Below the script editor is a 'History' table showing the execution of the script:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:36:40 AM	1	0.009 s
INSERT INTO TABLENO3 VALUES (1414,'MALE','TIRUPPUR','PG'), (1415,'MALE','TI...			0.009 s
Untitled - 3	Sep 28, 2022 11:34:38 AM	1	0.020 s
INSERT INTO TABLENO3 VALUES (1414,'MALE','TIRUPPUR','PG'), (1415,'MALE','TI...			0.020 s
Untitled - 3	Sep 28, 2022 11:34:06 AM	1	0.006 s

The screenshot shows the IBM Db2 on Cloud console interface displaying the contents of the 'FLJ92016.TABLENO3' table. The table has the following columns: ID, GENDER, LOCATION, and EDUCATION. The data is as follows:

ID	GENDER	LOCATION	EDUCATION
1414	MALE	TIRUPPUR	PG
1415	MALE	TIRUPPUR	UG
1418	MALE	ERODE	UG
3456	FEMALE	TIRUPPUR	PG

TABLE NO 4:

UPDATE TABLENO4

SET TEAMNAME = 'CSE' WHERE POSITION = 'LEADER';

IBM Db2 on Cloud

SQL

Filter objects

FLJ92016

Tables

TABLENO1

Views

MQTs

Aliases

Nicknames

Script

```
1 UPDATE TABLENO4
2 SET TEAMNAME = 'CSE' WHERE POSITION = 'LEADER';
3
```

History

Script	Date	Status	Runtime
Untitled - 4	Sep 28, 2022 11:43:24 AM	1	0.091 s
INSERT INTO TABLENO4 VALUES (2023,'TECH','PRANESH','LEADER',085), (2023,'TE...		1	0.091 s
Untitled - 4	Sep 28, 2022 11:42:41 AM	1	0.015 s
INSERT INTO TABLENO4 VALUES (2023,'TECH','PRANESH','LEADER',085), (2023,'TE...		1	0.015 s
Untitled - 4	Sep 28, 2022 11:41:10 AM	1	0.022 s

NT REVIEW | SCHE...pdf

92°F Mostly cloudy

IBM Db2 on Cloud

Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

FLJ92016.TABLENO4

Back

Export to CSV

YEAR	TEAMNAME	MEMBERNAME	POSITION	NO.
2023	CSE	PRANESH	LEADER	85
2023	TECH	VIJAY	TEAMMEMBER	114
2023	TECH	RANJITH	TEAMMEMBER	87
2023	TECH	BHARATH	TEAMMEMBER	9
2023	TECH	NISHANTH	TEAMMEMBER	73

NT REVIEW | SCHE...pdf

92°F Mostly cloudy

TABLE NO 5:

UPDATE TABLENO5

SET QUANTITY = 100 WHERE ITEMTOTAL = 34 ;

DELETE FROM TABLENO5

WHERE ITEMTOTAL = 98 ;

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' sidebar lists various database components like Tables, Views, and Aliases. The main area displays a SQL script in a text editor with the following content:

```
1 UPDATE TABLENO5
2 SET QUANTITY = 100 WHERE ITEMTOTAL = 34 ;
3 DELETE FROM TABLENO5
4 WHERE ITEMTOTAL = 98 ;
```

Below the script editor, the 'History' tab shows a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 5	Sep 28, 2022 12:28:57 PM	2	0.011 s
UPDATE TABLENO5 SET QUANTITY = 100 WHERE ITEMTOTAL = 34		✓	0.005 s
DELETE FROM TABLENO5 WHERE ITEMTOTAL = 98		✓	0.006 s
Untitled - 4	Sep 28, 2022 12:26:50 PM	1	0.020 s
UPDATE TABLENO4 SET TEAMNAME = 'CSE' WHERE POSITION = 'LEADER'		✓	0.020 s

The screenshot shows the IBM Db2 on Cloud console displaying the data for the 'TABLENO5' table. The table has four columns: PRODUCT_ID, QUANTITY, ITEMTOTAL, and CUSTOMER_ID. The data is as follows:

PRODUCT_ID	QUANTITY	ITEMTOTAL	CUSTOMER_ID
1414678	46	45	5458456
1415445	100	34	4564846
1416553	79	79	4564564
1417464	456	54	654565

3. Load excel comma seperated file to db2.12

IBM Db2 on Cloud

Load Data | Load History | Tables | Views | Indexes | Aliases | MQTs | Sequences | Application objects

Source | Target | Define | Finalize

You are loading the file **file.csv** into **FLJ92016.PRANESH**

Code page (character encoding): 1208 (UTF-8) | Separator: , | Header in first row: ☒ | Time & date format: | Detect data types: ☐

	ATTENDANCE FOR: VARCHAR(25)	CLASS-LIST VARCHAR(31)	COLUMN_2 VARCHAR(8)	COLUMN_3 VARCHAR(11)	COLUMN_4 VARCHAR(15)	COLUMN_5 VARCHAR(15)
1	Date:	"2022-05-11"	"Time:"	"19:52"	"Meet ID:"	"ncp-zpcz-zzb"
2	Names	"2022-05-11"	"Email"	"Comments"	"Arrival time"	"Last Seen"
3	Somnath Gorai	"✓"	"	"	"19:51"	"19:52"
4	Bharath Raj	"✓"	"	"	"19:51"	"19:52"
5	Help/more info:	"https://tinyurl.com/y5peu3nk"				
6	© Google Meet Attendance	"https://tinyurl.com/y6k2yqts"				

Activate Windows
Go to Settings to activate Windows.

IBM Db2 on Cloud

Load Data | Load History | Tables | Views | Indexes | Aliases | MQTs | Sequences | Application objects

Load details

My computer | Target
file.csv | FLJ92016.PRANESH

View Table | Load More Data

Status | Settings

9 Rows read | 9 Rows loaded | 0 Rows rejected

Start time: 10/01/2022 3:27:37 PM
End time: 10/01/2022 3:27:43 PM

The data load job succeeded.
You can now work with your data.

Errors | Warnings

No errors

Activate Windows
Go to Settings to activate Windows.

4. Connect python to db2.

CODE

```
import ibm_db

hostname = '9938aec0-8105-433e-8bf9-
0fbb7e483086.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud'

uid = 'flj92016'

pwd = 'wxhYtwp6ojv7R7I4'

driver = "{IBM DB2 ODBC DRIVER}"

db = 'bludb'

port = '32459'

protocol = 'TCPIP'

cert = "PraneshCertificate.crt"

dsn = (
    "DATABASE = {0};"
    "HOSTNAME = {1};"
    "PORT = {2};"
    "UID = {3};"
    "SECURITY = SSL;"
    "SSIServerCertificate = {4};"
    "PWD = {5};"
).format(db, hostname, port, uid, cert, pwd)

print(dsn)

try:
    db2 = ibm_db.connect(dsn, " ", " ")
    print("connect to database")
except:
    print("unable to connect ", ibm_db.conn_errormsg())
```

The screenshot shows the PyCharm IDE interface. On the left, the 'Project' tool window displays the file structure of a project named 'too0'. The files listed include 'Certificate.crt', 'DarshanCertificate.crt', 'darshanibm.py', 'greedy algorithm.py', 'ibm.py', 'karthiCertificate.crt', 'karthiIBM.py', 'main.py', 'PraneshCertificate.crt', 'praneshIBM.py', 'sort algorithm.py', 'External Libraries', 'Scratches and Consoles', and 'Scratches'. The 'praneshIBM.py' file is selected. The main editor window shows the code for 'praneshIBM.py'. The code imports the 'ibm_db' module and defines variables for database connection parameters: 'hostname', 'uid', 'pwd', 'driver', 'db', 'port', 'protocol', and 'cert'. It then constructs a 'dsn' string using these variables and attempts to connect to the database using 'db2 = ibm_db.connect(dsn, "", "")'. A try-except block is used to handle potential connection errors, printing the error message if a connection fails.

```
1 import ibm_db
2 hostname = '9938aec0-8105-433e-8bf9-0fbb7e483086.clogj3sd0tgtu0lqde00.databases.appdomain.cloud'
3 uid = 'flj92016'
4 pwd = 'wxhYtwp6ojv7R7I4'
5 driver = "{IBM DB2 ODBC DRIVER}"
6 db = 'bludb'
7 port = '32459'
8 protocol = 'TCPIP'
9 cert = "PraneshCertificate.crt"
10 dsn = (
11     "DATABASE = {0};"
12     "HOSTNAME = {1};"
13     "PORT = {2};"
14     "UID = {3};"
15     "SECURITY = SSL;"
16     "SSLServerCertificate = {4};"
17     "PWD = {5};"
18 ).format(db, hostname, port, uid, cert, pwd)
19 print(dsn)
20 try:
21     db2 = ibm_db.connect(dsn, "", "")
22     print("connect to database")
23 except:
24     print("unable to connect ", ibm_db.conn_errormsg())
```

The screenshot shows a Windows Command Prompt window. The title bar reads 'Command Prompt'. The text inside the window shows the following commands and output:

```
Microsoft Windows [Version 10.0.19044.2006]
(c) Microsoft Corporation. All rights reserved.

C:\Users\vrroh>cd PycharmProjects

C:\Users\vrroh\PycharmProjects>cd too0

C:\Users\vrroh\PycharmProjects\too0>python praneshIBM.py
DATABASE = bludb;HOSTNAME = 9938aec0-8105-433e-8bf9-0fbb7e483086.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT = 3
2459;UID = flj92016;SECURITY = SSL;SSLServerCertificate = PraneshCertificate.crt;PWD = wxhYtwp6ojv7R7I4;
connect to database

C:\Users\vrroh\PycharmProjects\too0>
```

.....