

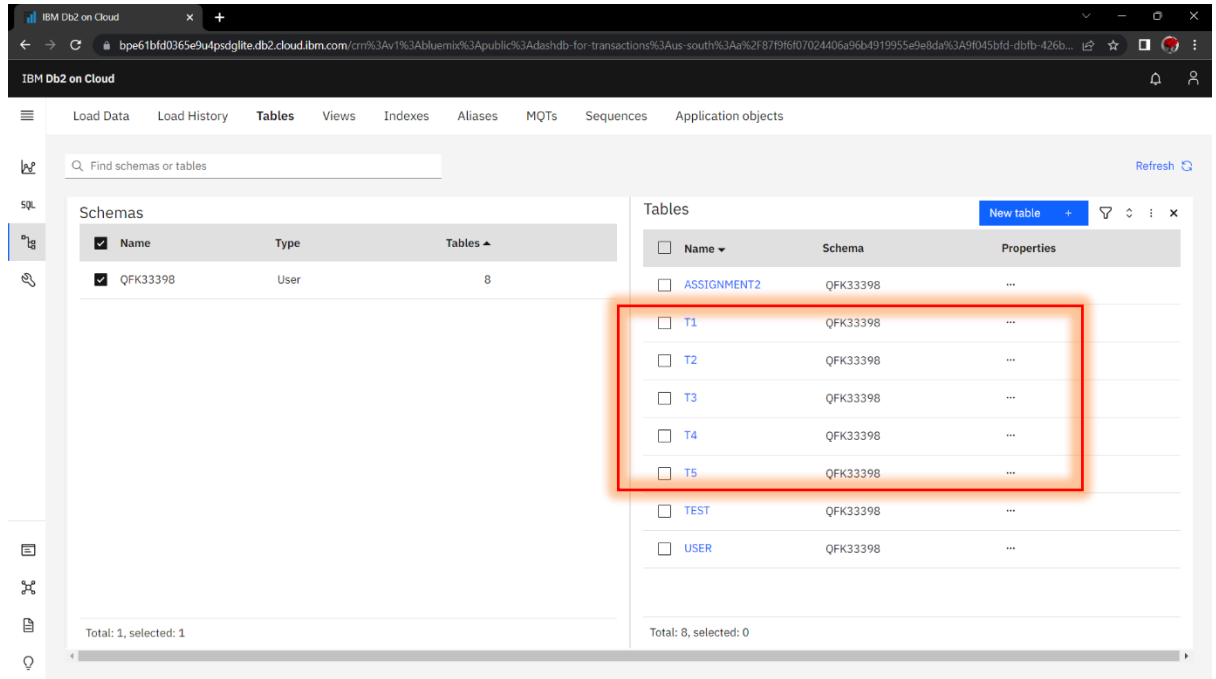
ASSIGNMENT - 2

TEAM ID : PNT2022TMID19425

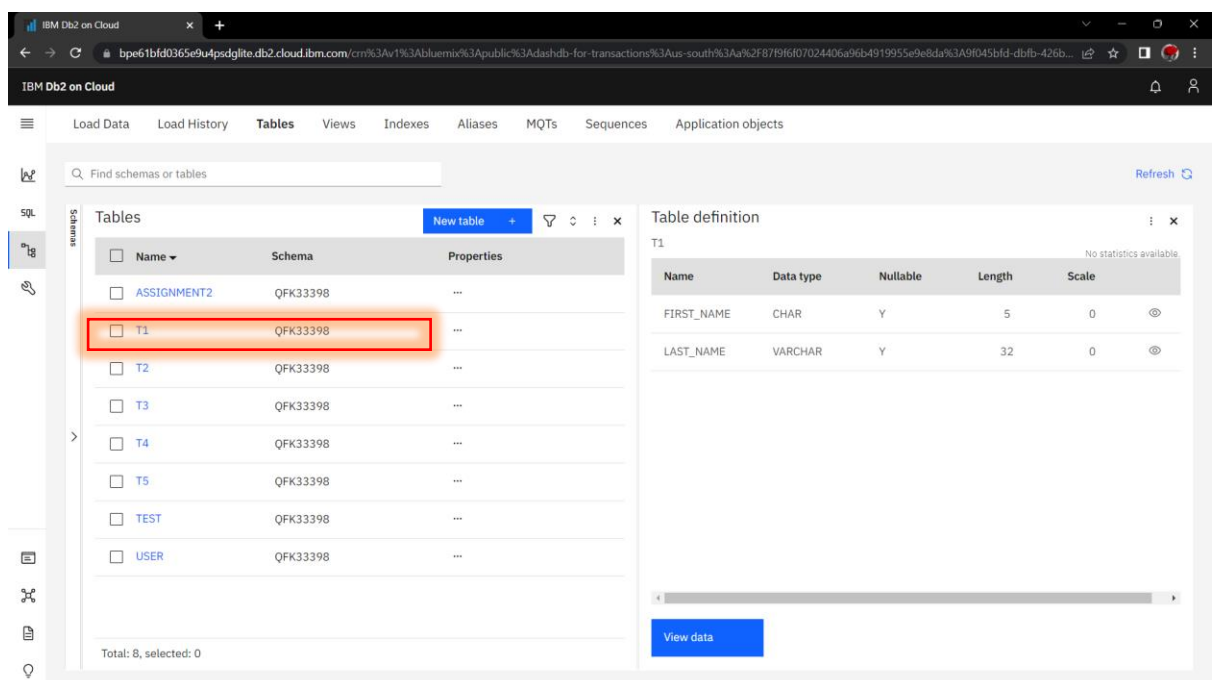
PROJECT NAME : SMART FASHION RECOMMENDER APPLICATION

1.CREATE 5 TABLES IN IBM db2 and insert data by using insert query.

TABLE NAMES : T1 , T2 , T3 ,T4 ,T5.



T1:



QUERY :

```
INSERT INTO T1(FIRST_NAME, LAST_NAME)
VALUES('Hari haran','S'),
('Gowthman','R'),
('Ishwarya','N'),
('Nitharshana','S');
```

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' panel displays a table named 'QFK33398'. The main editor area shows an SQL script in a file named 'Untitled - 3'. The script is as follows:

```
1 INSERT INTO T1(FIRST_NAME, LAST_NAME)
2 VALUES('Hari haran','S'),
3 ('Gowthman','R'),
4 ('Ishwarya','N'),
5 ('Nitharshana','S');
```

Below the editor, the 'History' tab is active, showing a table of script execution history:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 10:35:38 AM	✓ 1	0.016 s
INSERT INTO T1(FIRST_NAME, LAST_NAME) VALUES('Hari haran','S'), ('Gowthman','R'), ('Ishwarya','N'), ('Nitharshana','S');		✓	0.016 s

The screenshot shows the IBM Db2 on Cloud console interface, specifically the 'Tables' view. The table 'QFK33398.T1' is selected. The table structure is shown with columns 'FIRST_NAME' and 'LAST_NAME'. The data rows are as follows:

FIRST_NAME	LAST_NAME
Gowthman	R
Hari haran	S
Ishwarya	N
Nitharshana	S

T2:

QUERY:

```
INSERT INTO T2(ID,NAME,AGE)
VALUES('1','Hari','21'),
('2','Gow','21'),
('3','Ishu','20'),
('4','Nithu','20');
```

The screenshot displays the IBM Db2 on Cloud web interface. The top section shows the SQL editor with the following query:

```
1 INSERT INTO T2(ID,NAME,AGE)
2 VALUES('1','Hari','21'),
3 ('2','Gow','21'),
4 ('3','Ishu','20'),
5 ('4','Nithu','20');
```

Below the editor is the 'History' tab, which lists the execution history of the query:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 10:40:34 AM	✓ 1	0.010 s
INSERT INTO T2(ID,NAME,AGE) VALUES('1','Hari','21'), ('2','Gow','21'), ('3','Ishu','20'), ('4',...		✓	0.010 s
Untitled - 3	Sep 28, 2022 10:35:38 AM	✓ 1	0.016 s
INSERT INTO T1(FIRST_NAME, LAST_NAME) VALUES('Hari haran','S'), ('Gowthman','R'), ('Ishwariya','N...		✓	0.016 s

The bottom section shows the 'Tables' tab with the table 'QFK33398.T2' selected. The table data is displayed as follows:

ID	NAME	AGE
1	Hari	21
2	Gow	21
3	Ishu	20
4	Nithu	20

T3 :

QUERY :

```
INSERT INTO T3(NAME,CITY,PHONE_NO)
VALUES('Hari','ERODE','9360087076'),
('Gowthaman','TIRUPUR','9360087077'),
('Ishwarya','ANDHRA','9360087075'),
('Nitharshna','CHENNIMALAI','9360087072');
```

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The top bar indicates the connection to 'bpe61bf0365e9u4psdglite.db2.cloud.ibm.com'. The left sidebar shows the 'Data objects' tab. The main editor area displays the following SQL query:

```
1 INSERT INTO T3(NAME,CITY,PHONE_NO)
2 VALUES('Hari','ERODE','9360087076'),
3 ('Gowthaman','TIRUPUR','9360087077'),
4 ('Ishwarya','ANDHRA','9360087075'),
5 ('Nitharshna','CHENNIMALAI','9360087072');
```

The 'History' tab is active, showing a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 10:49:43 AM	1	0.013 s
INSERT INTO T3(NAME,CITY,PHONE_NO) VALUES('Hari','ERODE','9360087076'), ('Gowthaman','TIRUPUR'...		1	0.013 s
Untitled - 3	Sep 28, 2022 10:46:20 AM	1	0.024 s
INSERT INTO T3(NAME,CITY,PHONE_NO) VALUES('Hari','ERODE','936076'), ('Gow','TIRUPUR','936077')...		1	0.024 s
Untitled - 3	Sep 28, 2022 10:45:40 AM	1	0.025 s

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The top bar indicates the connection to 'bpe61bf0365e9u4psdglite.db2.cloud.ibm.com'. The left sidebar shows the 'Data objects' tab. The main editor area displays the following SQL query:

```
QFK33398.T3
```

The 'Results' tab is active, showing a table of executed scripts:

NAME	CITY	PHONE_NO
Gowthaman	TIRUPUR	9360087077
Hari	ERODE	9360087076
Ishwarya	ANDHRA	9360087075
Nitharshna	CHENNIMALAI	9360087072

T4:

QUERY:

```
INSERT INTO T4(EMP_ID,EMP_NAME,GENDER)
VALUES('EMP00001','HARI','M'),
('EMP00000EMP00002','GOWTH','M'),
('EMP00003','ISHU','F'),
('EMP00004','NITHU','F');
```

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes the IBM logo and various links. The main content area is divided into two tabs: 'History' and 'Results'. The 'History' tab is active, displaying a table of script execution records. The table has four columns: 'Script', 'Date', 'Status', and 'Runtime'. The 'Script' column contains the SQL statements executed, and the 'Status' column shows the execution result (green checkmark for success, red X for failure). The 'Runtime' column shows the execution time in seconds.

Script	Date	Status	Runtime
Untitled - 3 INSERT INTO T4(EMP_ID,EMP_NAME,GENDER) VALUES('EMP00001','HARI','M'), ('EMP00000EMP00002','GOWT...	Sep 28, 2022 10:54:36 AM	1	0.008 s
Untitled - 3 INSERT INTO T4(EMP_ID,EMP_NAME,GENDER) VALUES('EMP00001','HARI','M'), ('EMP00000EMP00002','GOWT...	Sep 28, 2022 10:54:18 AM	1	0.038 s
Untitled - 3 INSERT INTO T3(EMP_ID,EMP_NAME,GENDER) VALUES('EMP00001','HARI','M'), ('EMP00000EMP00002','GOWT...	Sep 28, 2022 10:53:42 AM	1	0.014 s

QFK33398.T4

EMP_ID	EMP_NAME	GENDER
EMP00001	HARI	M
EMP00003	ISHU	F
EMP00004	NITHU	F
EMP0000EMP00002	GOWTH	M

T5:

QUERY :

```
INSERT INTO T5(NAME,CITY,PIN_CODE)
VALUES('Hari','ERODE','001'),
('Gowthaman','TIRUPUR','002'),
('Ishwarya','ANDHRA','003'),
('Nitharshna','CHENNIMALAI','004');
```

SQL

```
1 INSERT INTO T5(NAME,CITY,PIN_CODE)
2 VALUES('Hari','ERODE','001'),
3 ('Gowthaman','TIRUPUR','002'),
4 ('Ishwarya','ANDHRA','003'),
5 ('Nitharshna','CHENNIMALAI','004');
6
```

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 10:59:02 AM	1	0.008 s
INSERT INTO T5(NAME,CITY,PIN_CODE) VALUES('Hari','ERODE','001'), ('Gowthaman','TIRUPUR','002')...			0.008 s
Untitled - 3	Sep 28, 2022 10:56:31 AM	1	0.026 s
INSERT INTO T5(NAME,CITY,PIN_CODE) VALUES('Hari','ERODE','001'), ('Gowthaman','TIRUPUR','002')...			0.026 s
Untitled - 3	Sep 28, 2022 10:54:36 AM	1	0.008 s

IBM Db2 on Cloud

Load DataLoad History**Tables**ViewsIndexesAliasesMQTsSequencesApplication objects

QFK33398.T5

Back

Export to CSV

NAME	CITY	PIN_CODE
Gowthaman	TIRUPUR	2
Hari	ERODE	1
Ishwarya	ANDHRA	3
Nitharshna	CHENNIMALAI	4

2.PERFORM UPDATE , DELETE QUERIES in 5 tables:

T1 :

QUERY :

DELETE FROM T1 WHERE LAST_NAME='N';

UPDATE T1 SET FIRST_NAME='HARISH' WHERE LAST_NAME='S'

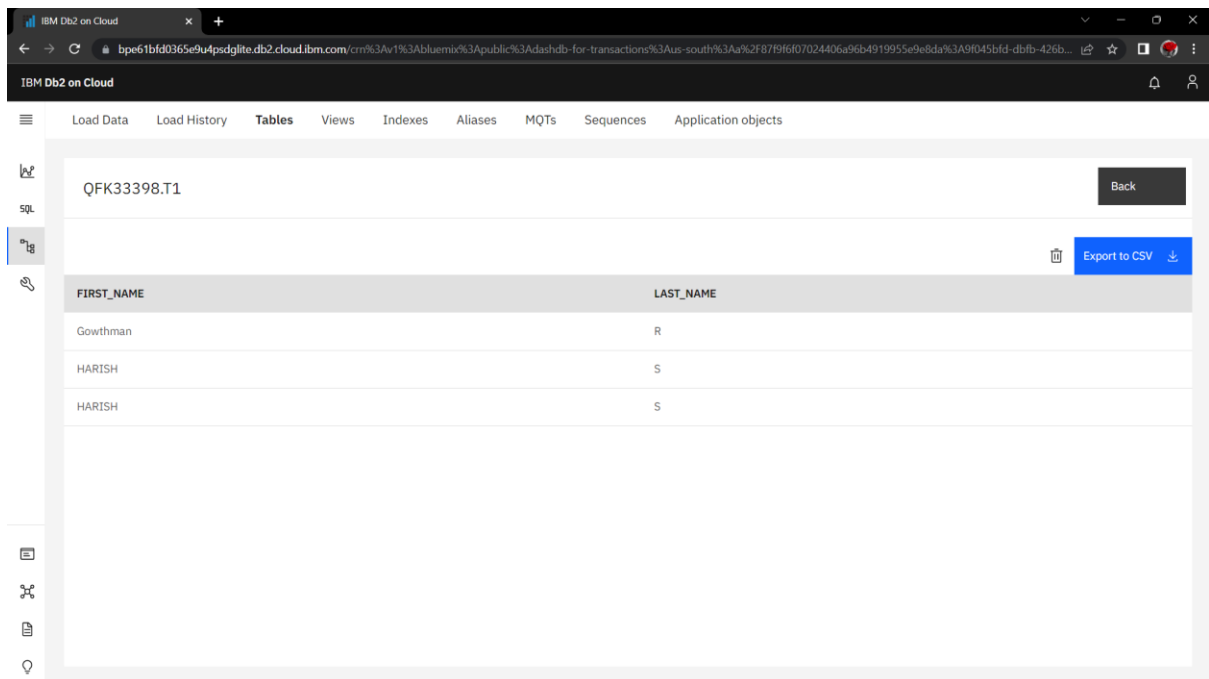
The screenshot shows the IBM Db2 on Cloud console interface. The SQL editor contains the query: `DELETE FROM T1 WHERE LAST_NAME='N';`. The 'History' tab is active, displaying a table of executed scripts.

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:10:45 AM	1	0.004 s
DELETE FROM T1 WHERE LAST_NAME='N'			0.004 s
Untitled - 3	Sep 28, 2022 11:10:31 AM	1	0.014 s
INSERT INTO T1(FIRST_NAME, LAST_NAME) VALUES('Ishwarya', 'N')			0.014 s
Untitled - 3	Sep 28, 2022 11:09:23 AM	1	0.003 s

The screenshot shows the IBM Db2 on Cloud console interface. The SQL editor contains the query: `UPDATE T1 SET FIRST_NAME='HARISH' WHERE LAST_NAME='S';`. The 'History' tab is active, displaying a table of executed scripts.

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:12:48 AM	1	0.014 s
UPDATE T1 SET FIRST_NAME='HARISH' WHERE LAST_NAME='S'			0.014 s
Untitled - 3	Sep 28, 2022 11:10:45 AM	1	0.004 s
DELETE FROM T1 WHERE LAST_NAME='N'			0.004 s
Untitled - 3	Sep 28, 2022 11:10:31 AM	1	0.014 s

AFTER DELETING AND UPDATING IN T1:



The screenshot shows the IBM Db2 on Cloud web interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, showing a table named 'QFK33398.T1'. The table has two columns: 'FIRST_NAME' and 'LAST_NAME'. The data rows are:

FIRST_NAME	LAST_NAME
Gowthman	R
HARISH	S
HARISH	S

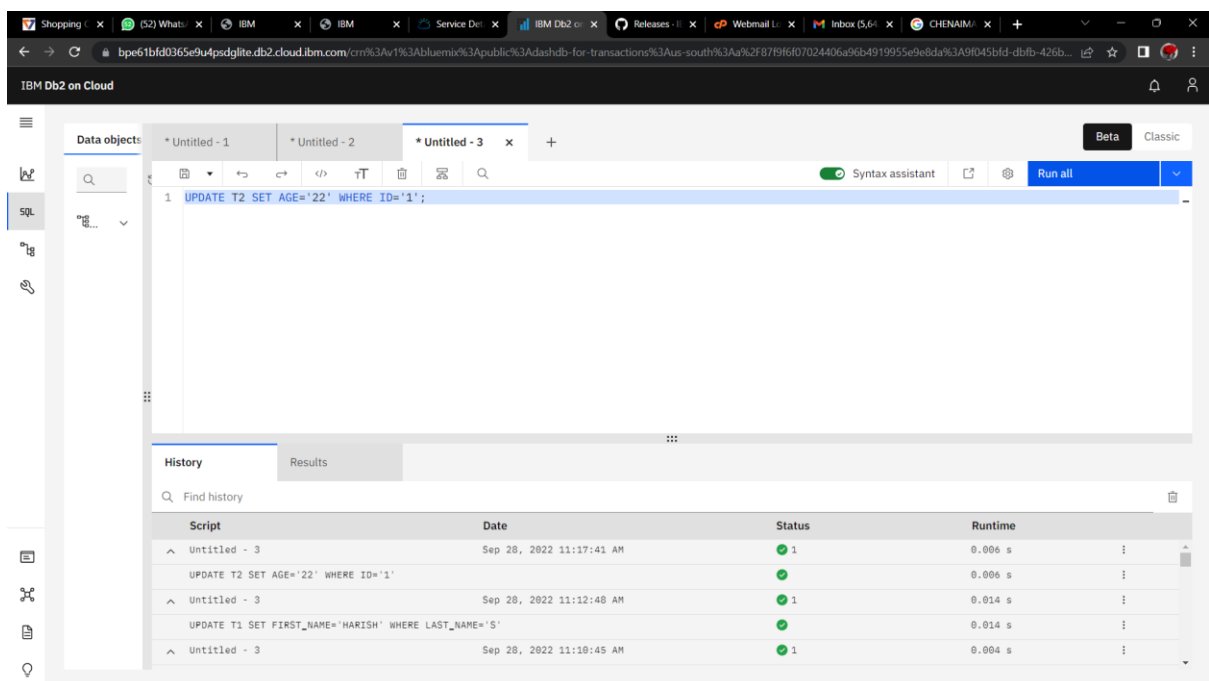
Buttons for 'Back', 'Export to CSV', and 'Download' are visible.

T2 :

QUERY:

UPDATE T2 SET AGE='22' WHERE ID='1';

DELETE FROM T2 WHERE ID='4';



The screenshot shows the IBM Db2 on Cloud web interface with the SQL editor open. The query entered is:

```
1 UPDATE T2 SET AGE='22' WHERE ID='1';
```

The 'History' tab is selected, showing a table of executed queries:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:17:41 AM	✓ 1	0.006 s
UPDATE T2 SET AGE='22' WHERE ID='1'		✓	0.006 s
Untitled - 3	Sep 28, 2022 11:12:48 AM	✓ 1	0.014 s
UPDATE T1 SET FIRST_NAME='HARISH' WHERE LAST_NAME='S'		✓	0.014 s
Untitled - 3	Sep 28, 2022 11:10:45 AM	✓ 1	0.004 s

Shopping x (52) Whats x IBM x IBM x Service De x IBM Db2 on Cloud x Releases x Webmail L x Inbox (5,6 x CHENAIM x +

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F87f9f6f07024406a96b4919955e9e8da%3A9f045bfd-dbf-426b...

IBM Db2 on Cloud

Data objects *Untitled - 1 *Untitled - 2 *Untitled - 3 x + Beta Classic

SQL

```
1 DELETE FROM T2 WHERE ID='4';
```

History Results

Find history

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:20:23 AM	✓ 1	0.017 s
DELETE FROM T2 WHERE ID='4'		✓	0.017 s
Untitled - 3	Sep 28, 2022 11:17:41 AM	✓ 1	0.006 s
UPDATE T2 SET AGE='22' WHERE ID='1'		✓	0.006 s
Untitled - 3	Sep 28, 2022 11:12:48 AM	✓ 1	0.014 s

AFTER DELETING AND UPDATING IN T2:

IBM Db2 on Cloud x +

Reload this page

IBM Db2 on Cloud

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

QFK33398.T2 Back

Export to CSV

ID	NAME	AGE
1	Hari	22
2	Gow	21
3	Ishu	20

T3 :

QUERY:

UPDATE T3 SET CITY='TAMILNADU' WHERE NAME='Ishwarya';

DELETE FROM T3 WHERE CITY='ERODE';

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The top bar indicates the user is logged in as 'CHENAIM'. The left sidebar shows the 'Data objects' tab. The main editor area contains a script with two queries:

```
1 UPDATE T3 SET CITY='TAMILNADU' WHERE NAME='Ishwarya';
2 DELETE FROM T3 WHERE CITY='ERODE';
```

The 'History' tab is active, showing a table of executed queries:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:25:52 AM	1 1	0.012 s
UPDATE T3 SET CITY='TAMILNADU' WHERE NAME='Ishwarya'		1	0.007 s
DELETE FROM T3 WHERE CITY='ERODE'		1	0.005 s
Untitled - 3	Sep 28, 2022 11:25:04 AM	1 1	0.023 s
UPDATE T3 SET PHONE_NO='1234567899' WHERE NAME='Ishwarya'		1	0.016 s

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The top bar indicates the user is logged in as 'CHENAIM'. The left sidebar shows the 'Data objects' tab. The main editor area displays the results of the queries:

QFK33398.T3

NAME	CITY	PHONE_NO
Gowthaman	TIRUPUR	9360087077
Ishwarya	TAMILNADU	9360087075
Nitharshna	CHENNIMALAI	9360087072

T4:

QUERY :

UPDATE T4 SET EMP_ID='EMP00002' WHERE EMP_NAME='GOWTH';

DELETE FROM T4 WHERE EMP_NAME='NITHU';

The screenshot shows the IBM Db2 on Cloud SQL editor. The query script contains two statements: an UPDATE and a DELETE. The execution history table below shows the results of running these queries.

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:29:20 AM	1 success, 1 warning	0.012 s
UPDATE T4 SET EMP_ID='EMP00002' WHERE EMP_NAME='GOWTH'		1 success	0.007 s
DELETE FROM T4 WHERE EMP_NAME='NITHU'		1 warning	0.005 s
Untitled - 3	Sep 28, 2022 11:28:55 AM	1 success, 1 error	0.029 s
UPDATE T4 SET EMP_ID='EMP00002' WHERE NAME='GOWTH'		1 error	0.021 s

The screenshot shows the IBM Db2 on Cloud Tables view for table T4. The table contains three rows of data.

EMP_ID	EMP_NAME	GENDER
EMP00001	HARI	M
EMP00002	GOWTH	M
EMP00003	ISHU	F

T5:

QUERY:

UPDATE T5 SET NAME='HARI HARAN' WHERE CITY='ERODE';

DELETE FROM T5 WHERE PIN_CODE='3';

IBM Db2 on Cloud

SQL

```
1 UPDATE T5 SET NAME='HARI HARAN' WHERE CITY='ERODE';
2 DELETE FROM T5 WHERE PIN_CODE='3';
```

History

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:31:56 AM	2	0.019 s
UPDATE T5 SET NAME='HARI HARAN' WHERE CITY='ERODE'			0.011 s
DELETE FROM T5 WHERE PIN_CODE='3'			0.008 s
Untitled - 3	Sep 28, 2022 11:29:28 AM	1	0.012 s
UPDATE T4 SET EMP_ID='EMP00002' WHERE EMP_NAME='GOWTH'			0.007 s

IBM Db2 on Cloud

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

QFK33398.T5

Export to CSV

NAME	CITY	PIN_CODE
Gowthaman	TIRUPUR	2
HARI HARAN	ERODE	1
Nitharshna	CHENNIMALAI	4

3.LOAD EXCEL COMMA SEPERATED FILE TO db2

The screenshot shows the 'Load Data' job completion screen in IBM Db2 on Cloud. A notification banner at the top right states: 'The data load job succeeded. Load class-list (2022-05-11).csv from My Computer to QFK33398.DEMO. 2022/09/28, 11:41 AM View details'. The main section, titled 'Load details', shows a 'COMPLETE' status with a blue checkmark. It lists the source as 'My computer', the file as 'class-list (2022-05-11).csv', and the target as 'QFK33398.DEMO'. Below this, a donut chart displays the job statistics: 9 Rows read, 9 Rows loaded, and 0 Rows rejected. The start time is 09/28/2022 11:41:16 AM and the end time is 09/28/2022 11:41:51 AM. A large message in the center states: 'The data load job succeeded. You can now work with your data.' To the right, the 'Errors' and 'Warnings' sections are both empty, indicating 'No errors'.

Rows read	Rows loaded	Rows rejected
9	9	0

Start time: 09/28/2022 11:41:16 AM
End time: 09/28/2022 11:41:51 AM

The screenshot shows the 'Schemas' and 'Tables' view in IBM Db2 on Cloud. The 'Schemas' table on the left lists the schema 'QFK33398' of type 'User' with 9 tables. The 'Tables' table on the right lists the tables within the 'QFK33398' schema. The table 'DEMO' is highlighted with a red box. The 'Tables' table also shows other tables like 'ASSIGNMENT2', 'T1', 'T2', 'T3', 'T4', 'T5', 'TEST', and 'USER'.

Name	Type	Tables
QFK33398	User	9

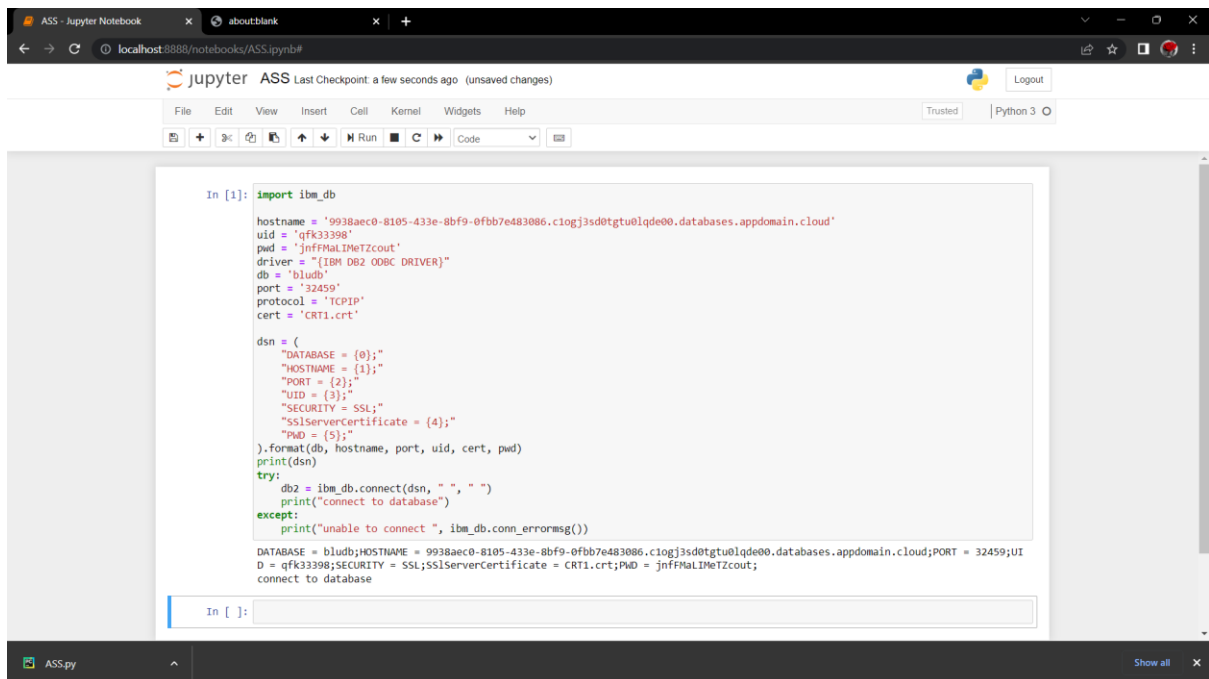
Name	Schema	Properties
ASSIGNMENT2	QFK33398	...
DEMO	QFK33398	...
T1	QFK33398	...
T2	QFK33398	...
T3	QFK33398	...
T4	QFK33398	...
T5	QFK33398	...
TEST	QFK33398	...
USER	QFK33398	...

Total: 1, selected: 1
Total: 9, selected: 0

The screenshot shows the IBM Db2 Cloud web interface. The top navigation bar includes links like Load Data, Load History, Tables, Views, Indexes, Aliases, MQTs, Sequences, and Application objects. Below this, there's a search or filter input field containing "QFK33398.DEMO". To the right of this field are icons for back, export to CSV, and download.

	Attendance for:	class-list	COLUMN_2	COLUMN_3	COLUMN_4	COLUMN_5	COLUMN_6	COLUMN_7	COLUMN_8
Bharath Raj	✓				19:51	19:51	1	1	
Date:	2022-05-11	Time:	19:50	Meet ID:	nep-zpcz-zzb				
Help/more info:	https://tinyurl.com/y5peu3nk								
Names	2022-05-11	Email	Comments	Arrival time	Last Seen	# of Checks	Joined	Details	
Somnath Gorai	✓				19:51	19:51	1	1	
@ Google Meet Attendance	https://tinyurl.com/y6k2yqts								

4.CONNECT PYTHON TO db2:



The screenshot shows a Jupyter Notebook in a web browser. The notebook contains a single code cell with the following Python code:

```
In [1]: import ibm_db

hostname = '9938aec0-8105-433e-8bf9-0fbb7e483086.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud'
uid = 'qfk33398'
pwd = 'jnfFMaLIMeTZcout'
driver = "{IBM DB2 ODBC DRIVER}"
db = 'bludb'
port = '32459'
protocol = 'TCPIP'
cert = 'CRT1.crt'

dsn = (
    "DATABASE = {0};"
    "HOSTNAME = {1};"
    "PORT = {2};"
    "UID = {3};"
    "SECURITY = SSL;"
    "SSLServerCertificate = {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())

DATABASE = bludb;HOSTNAME = 9938aec0-8105-433e-8bf9-0fbb7e483086.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT = 32459;UID = qfk33398;SECURITY = SSL;SSLServerCertificate = CRT1.crt;PWD = jnfFMaLIMeTZcout;
connect to database
```

The output of the code is visible below the cell, showing the formatted DSN string and the connection status.

CODE :

```
import ibm_db
```

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

```
uid = 'qfk33398'
```

```
pwd = 'jnfFMaLIMeTZcout'
```

```
driver = "{IBM DB2 ODBC DRIVER}"
```

```
db = 'bludb'
```

```
port = '32459'
```

```
protocol = 'TCPIP'
```

```
cert = 'CRT1.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())
```