

ASSIGNMENT - 2

TEAM ID :PNT2022TMID19460

PROJECT NAME : PERSONAL EXPENSE TRACKER

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

TABLE NAMES : EMPLOYEE, CUSTOMER, FACULTY, STUDENT, VOTERID

EMPLOYEE

QUERY :

1. INSERT INTO EMPLOYEE

VALUES

(55,'Kiruthika',50000),

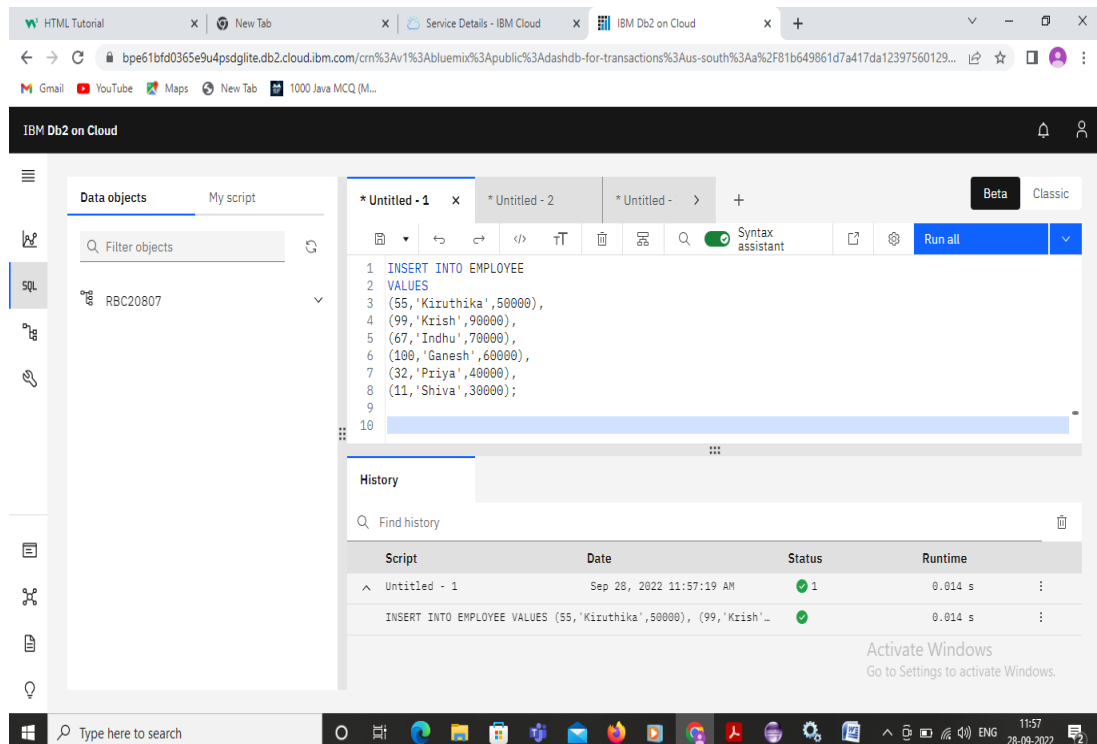
(99,'Krish',90000),

(67,'Indhu',70000),

(100,'Ganesh',60000),

(32,'Priya',40000),

(11,'Shiva',30000);



OUTPUT :

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying a table named 'RBC20807.EMPLOYEE'. The table has three columns: 'EMPID', 'EMPNAME', and 'SALARY'. The data is as follows:

EMPID	EMPNAME	SALARY
11	Shiva	30000
32	Priya	40000
55	Kiruthika	50000
67	Indhu	70000
99	Krish	90000
100	Ganesh	60000

An 'Export to CSV' button is visible in the top right corner of the table view. The Windows taskbar at the bottom shows the time as 11:42 on 28-09-2022.

CUSTOMER

QUERY:

INSERT INTO CUSTOMER VALUES

(99,'Kavin','Mobile'),

(100,'Naveena','Lap') ,

(43,'Somu','Headphones'),

(85,'Ram','Groceries'),

(22,'Ravi','Dresses');

The screenshot shows the IBM Db2 on Cloud console with the 'My script' tab active. The SQL editor contains the following query:

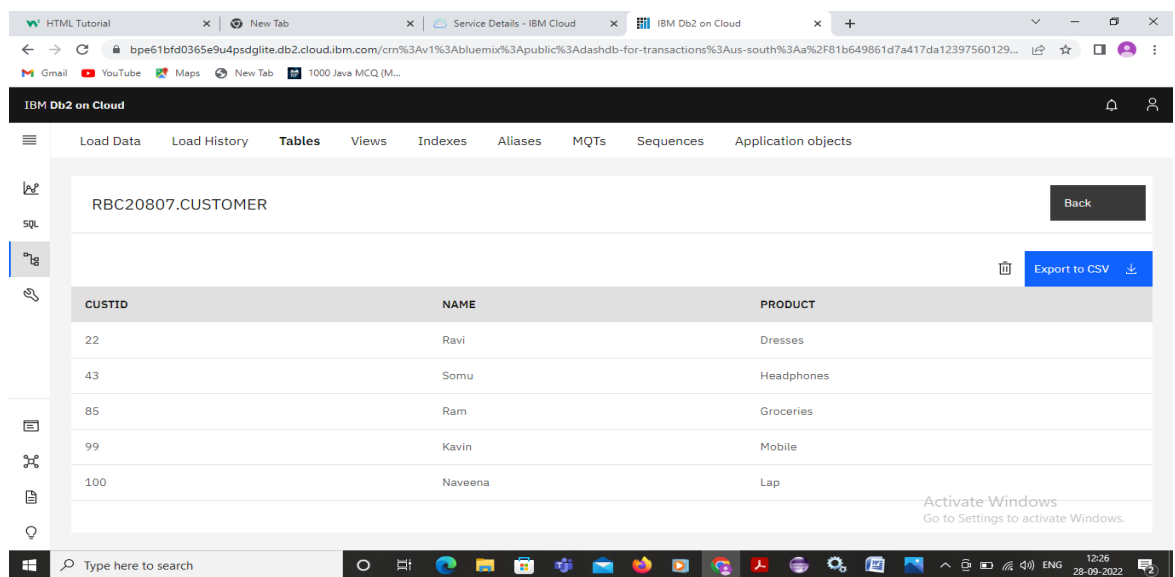
```
1 INSERT INTO CUSTOMER
2 VALUES
3 (99,'Kavin','Mobile'),
4 (100,'Naveena','Lap'),
5 (43,'Somu','Headphones'),
6 (85,'Ram','Groceries'),
7 (22,'Ravi','Dresses');
```

The 'Run all' button is highlighted. Below the editor, the 'History' tab is open, showing a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 4	Sep 28, 2022 12:26:19 PM	1	0.021 s
INSERT INTO CUSTOMER VALUES (99,'Kavin','Mobile'), (100,'Nave...			0.021 s
Untitled - 4	Sep 28, 2022 12:24:36 PM	1	0.010 s
INSERT INTO FACULTY VALUES (99,'Kavin','Mobile'), (100,'Navee...			0.010 s

The Windows taskbar at the bottom shows the time as 12:26 on 28-09-2022.

OUTPUT :



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, displaying a table named 'RBC20807.CUSTOMER'. A 'Back' button is in the top right. Below the table name is an 'Export to CSV' button. The table has three columns: 'CUSTID', 'NAME', and 'PRODUCT'. The data rows are as follows:

CUSTID	NAME	PRODUCT
22	Ravi	Dresses
43	Somu	Headphones
85	Ram	Groceries
99	Kavin	Mobile
100	Naveena	Lap

An 'Activate Windows' watermark is visible in the bottom right corner of the interface.

STUDENT

QUERY :

INSERT INTO STUDENT

VALUES

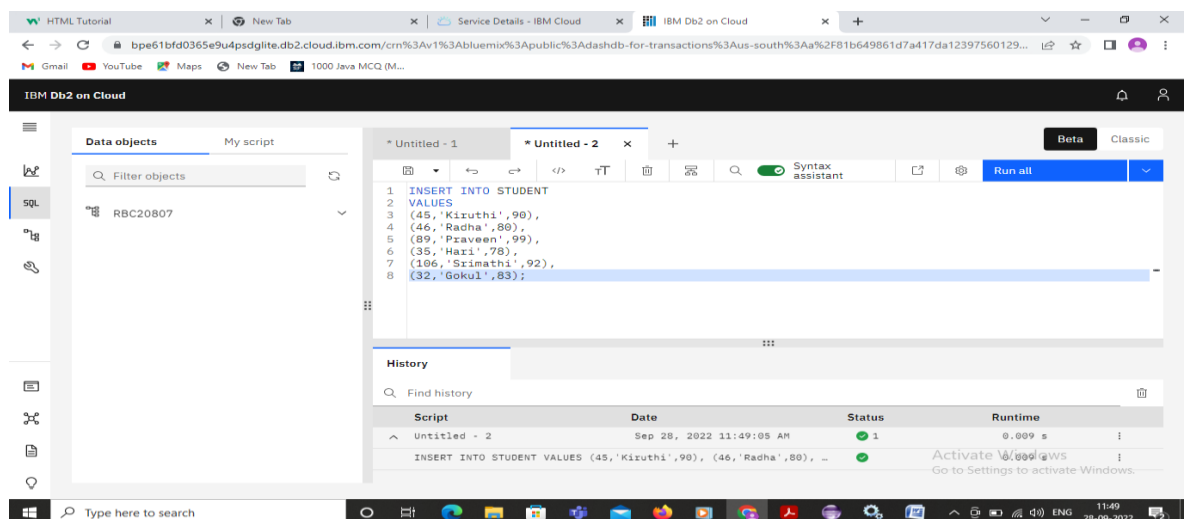
(45,'Kiruthi',90),

(46,'Radha',80),

(89,'Praveen',99),

(35,'Hari',78),(106,'Srimathi',92),

(32,'Gokul',83);



The screenshot shows the IBM Db2 on Cloud web interface with the 'Data objects' tab selected. The 'My script' section shows a list of objects, including 'RBC20807'. The 'Untitled - 2' script editor contains the following SQL query:

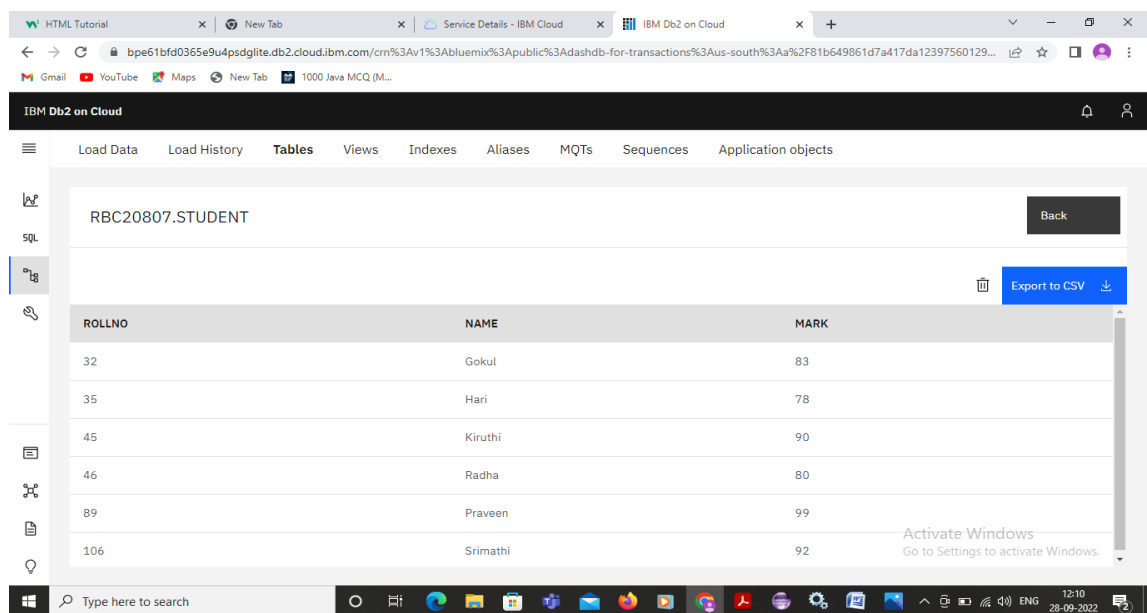
```
1 INSERT INTO STUDENT
2 VALUES
3 (45,'Kiruthi',90),
4 (46,'Radha',80),
5 (89,'Praveen',99),
6 (35,'Hari',78),
7 (106,'Srimathi',92),
8 (32,'Gokul',83);
```

The 'History' tab is open, showing a table with the following columns: 'Script', 'Date', 'Status', and 'Runtime'. The table contains one entry:

Script	Date	Status	Runtime
Untitled - 2 INSERT INTO STUDENT VALUES (45,'Kiruthi',90), (46,'Radha',80), ...	Sep 28, 2022 11:49:05 AM	1	0.009 s

An 'Activate Windows' watermark is visible in the bottom right corner of the interface.

OUTPUT :



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, displaying a table named 'RBC20807.STUDENT'. The table has three columns: 'ROLLNO', 'NAME', and 'MARK'. The data is as follows:

ROLLNO	NAME	MARK
32	Gokul	83
35	Hari	78
45	Kiruthi	90
46	Radha	80
89	Praveen	99
106	Srimathi	92

Buttons for 'Back' and 'Export to CSV' are visible in the top right corner of the table view.

FACULTY

QUERY:

INSERT INTO FACULTY

VALUES

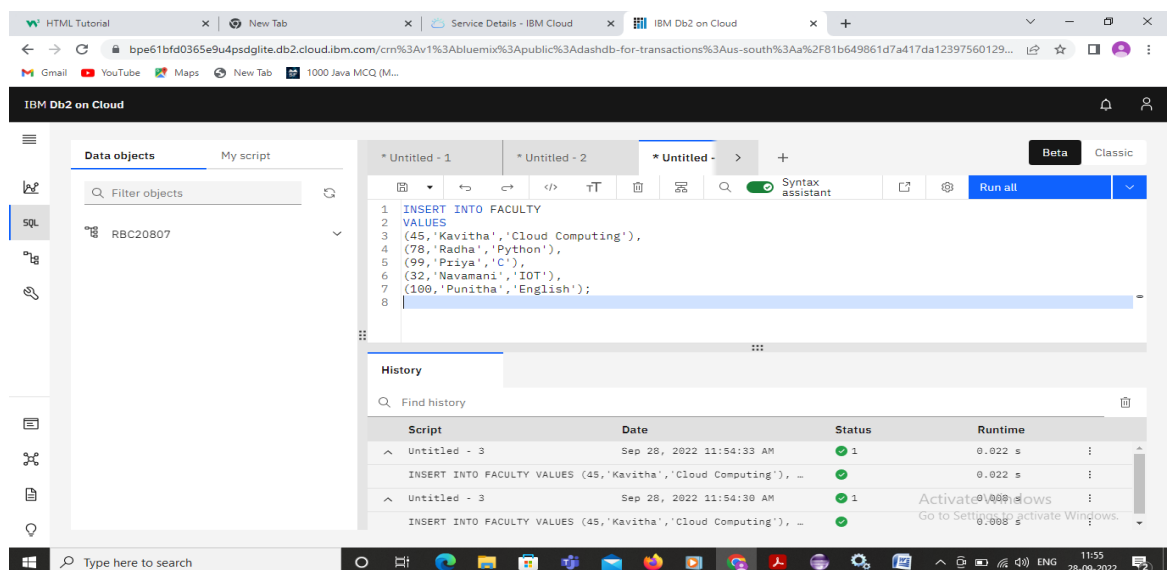
(45,'Kavitha','Cloud Computing'),

(78,'Radha','Python'),

(99,'Priya','C'),

(32,'Navamani','IOT'),

(100,'Punitha','English');



The screenshot shows the IBM Db2 on Cloud web interface with the 'My script' tab selected. The SQL editor contains the following query:

```
1 INSERT INTO FACULTY
2 VALUES
3 (45,'Kavitha','Cloud Computing'),
4 (78,'Radha','Python'),
5 (99,'Priya','C'),
6 (32,'Navamani','IOT'),
7 (100,'Punitha','English');
8
```

The 'Run all' button is visible in the top right corner of the script editor. Below the script editor, the 'History' tab is selected, showing a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 11:54:33 AM	✓ 1	0.022 s
INSERT INTO FACULTY VALUES (45,'Kavitha','Cloud Computing'), ...		✓ 1	0.022 s
Untitled - 3	Sep 28, 2022 11:54:30 AM	✓ 1	0.008 s
INSERT INTO FACULTY VALUES (45,'Kavitha','Cloud Computing'), ...		✓ 1	0.008 s

OUTPUT :

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying a table named 'RBC20807.FACULTY'. The table has three columns: 'ID', 'NAME', and 'SUBJECT'. The data rows are as follows:

ID	NAME	SUBJECT
32	Navamani	IOT
45	Kavitha	Cloud Computing
78	Radha	Python
99	Priya	C
100	Punitha	English

Additional UI elements include a 'Back' button, an 'Export to CSV' button, and a search bar at the bottom. The Windows taskbar at the bottom shows the time as 12:12 on 28-09-2022.

VOTERID

QUERY :

INSERT INTO VOTERID

VALUES

(1,'Shiva','Erode'),

(14,'Naveen','Namakkal') ,

(43,'Sruthi','Thirupur'),

(85,'Mounish','Coimbatore'),

(22,'Krithi','Chennai');

The screenshot shows the IBM Db2 on Cloud console with the 'My script' tab active. The SQL editor contains the following query:

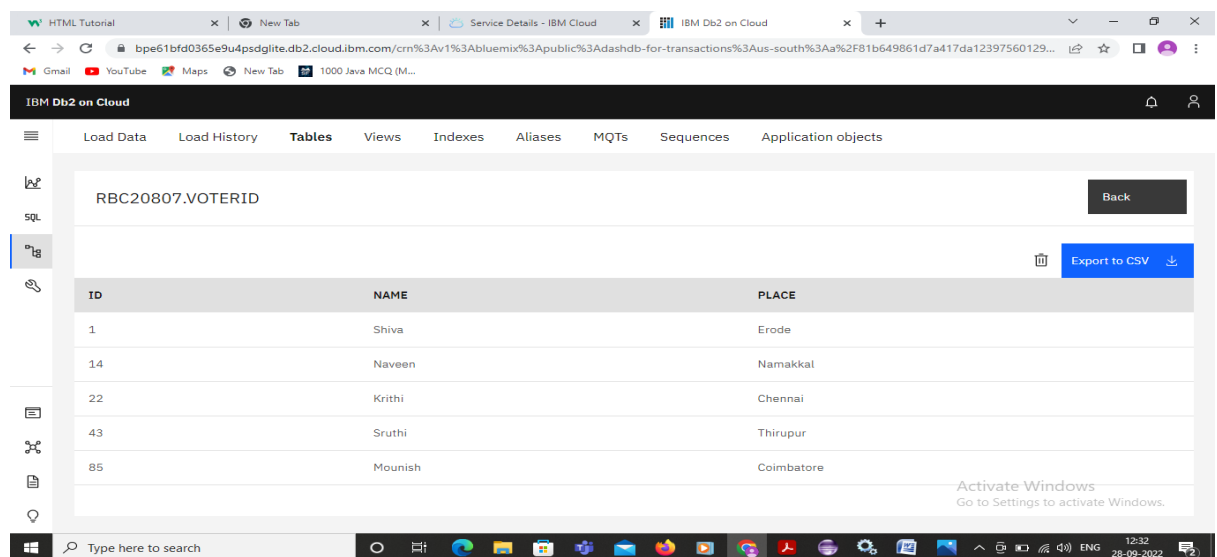
```
1 INSERT INTO VOTERID
2 VALUES
3 (1,'Shiva','Erode'),
4 (14,'Naveen','Namakkal') ,
5 (43,'Sruthi','Thirupur'),
6 (85,'Mounish','Coimbatore'),
7 (22,'Krithi','Chennai');
```

The 'History' tab is also visible, showing the execution details of the script:

Script	Date	Status	Runtime
Untitled - 5	Sep 28, 2022 12:30:31 PM	✓ 1	0.009 s
INSERT INTO VOTERID VALUES (1,'Shiva','Erode'), (14,'Naveen','N...		✓	0.009 s

The Windows taskbar at the bottom shows the time as 12:31 on 28-09-2022.

OUTPUT :



ID	NAME	PLACE
1	Shiva	Erode
14	Naveen	Namakkal
22	Krithi	Chennai
43	Sruthi	Thirupur
85	Mounish	Coimbatore

2. PERFORM UPDATE , DELETE QUERIES in 5 tables:

EMPLOYEE

QUERY :

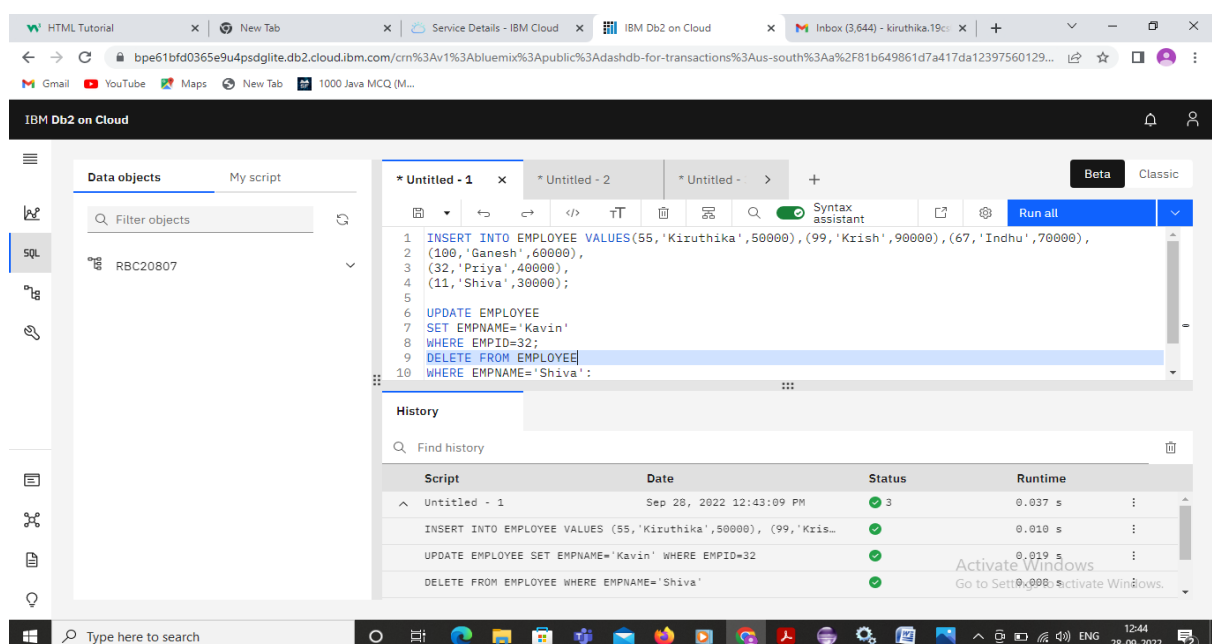
UPDATE EMPLOYEE

SET EMPNAME='Kavin'

WHERE EMPID=32;

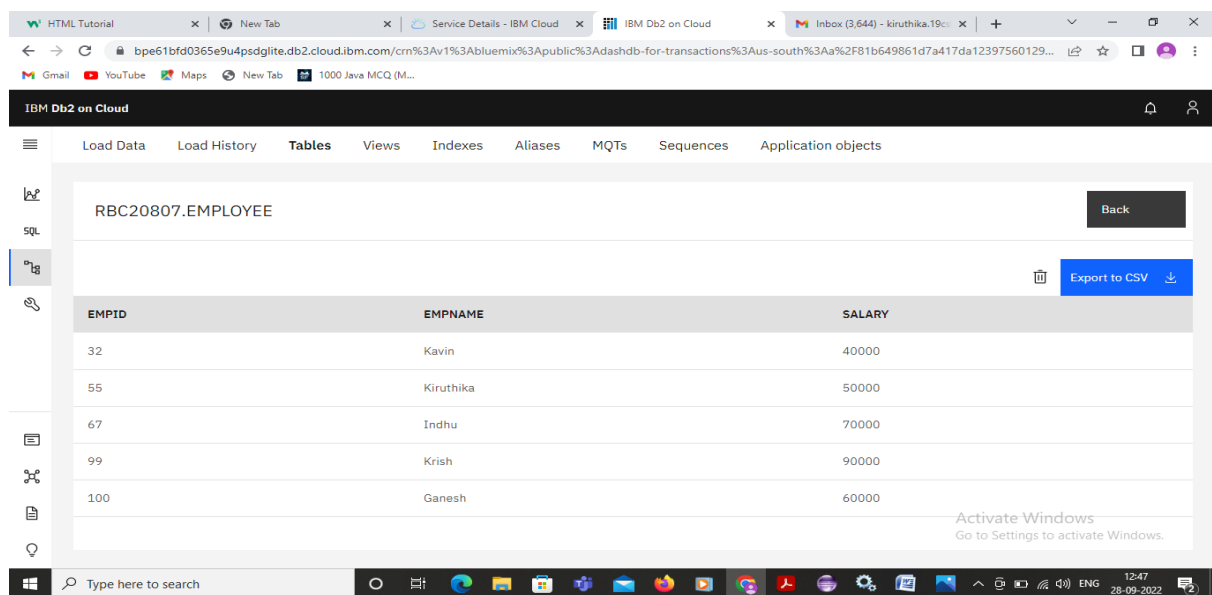
DELETE FROM EMPLOYEE

WHERE EMPNAME='Shiva';



Script	Date	Status	Runtime
Untitled - 1	Sep 28, 2022 12:43:09 PM	3	0.037 s
INSERT INTO EMPLOYEE VALUES (55, 'Kirutika', 50000), (99, 'Kris...		✓	0.010 s
UPDATE EMPLOYEE SET EMPNAME='Kavin' WHERE EMPID=32		✓	0.019 s
DELETE FROM EMPLOYEE WHERE EMPNAME='Shiva'		✓	

OUTPUT:



The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying the 'RBC20807.EMPLOYEE' table. A table with 3 columns (EMPID, EMPNAME, SALARY) and 5 rows of data is shown. An 'Export to CSV' button is visible. The bottom status bar shows the Windows taskbar with the time 12:47 on 28-09-2022.

EMPID	EMPNAME	SALARY
32	Kavin	40000
55	Kiruthika	50000
67	Indhu	70000
99	Krish	90000
100	Ganesh	60000

CUSTOMER

QUERY:

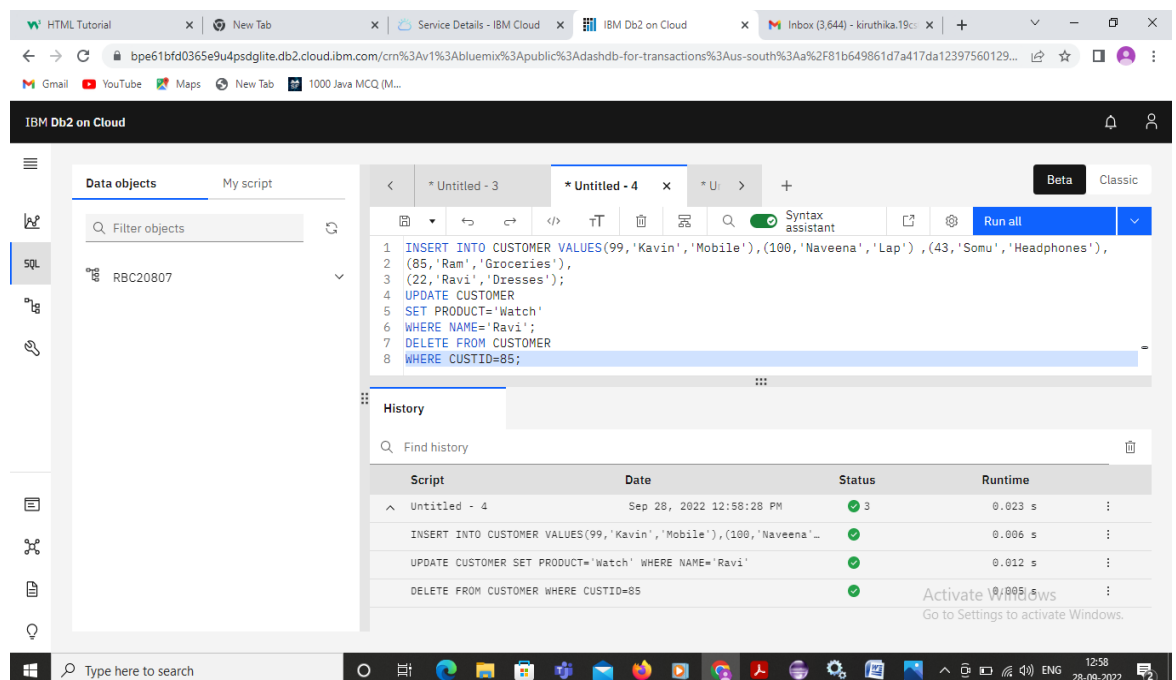
UPDATE CUSTOMER

SET PRODUCT='Watch'

WHERE NAME='Ravi';

DELETE FROM CUSTOMER

WHERE CUSTID=85;



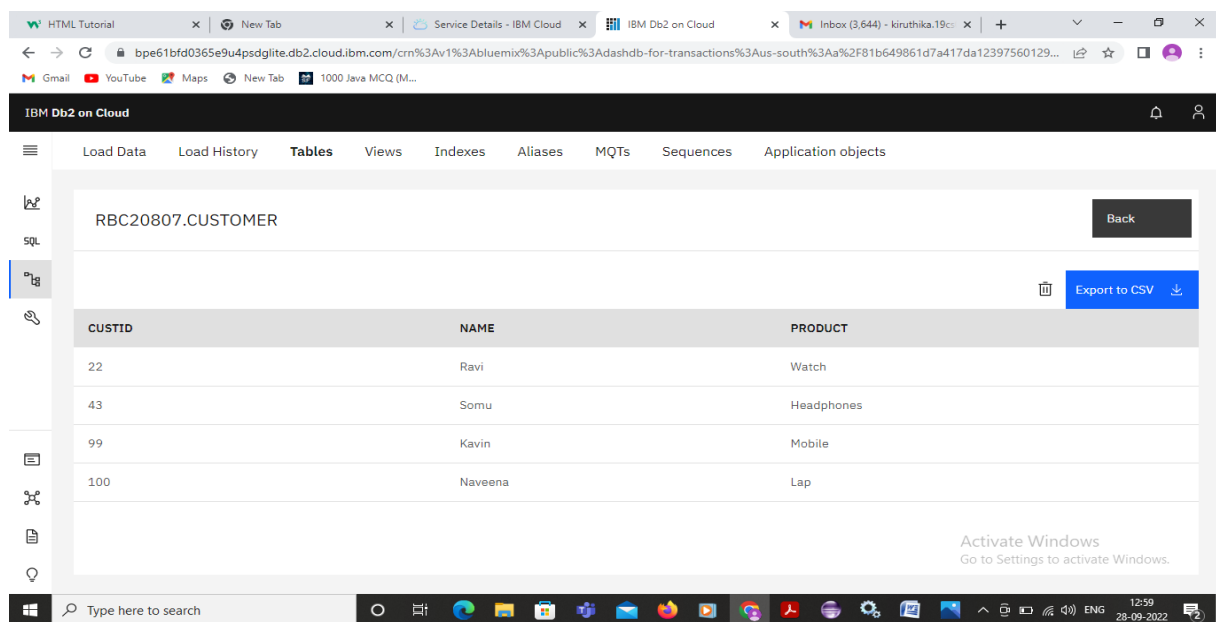
The screenshot shows the IBM Db2 on Cloud console with a SQL script being executed. The script is displayed in the 'Untitled - 4' editor. The script contains the following SQL statements:

```
1 INSERT INTO CUSTOMER VALUES(99,'Kavin','Mobile'),(100,'Naveena','Lap'),(43,'Somu','Headphones'),
2 (85,'Ram','Groceries'),
3 (22,'Ravi','Dresses');
4 UPDATE CUSTOMER
5 SET PRODUCT='Watch'
6 WHERE NAME='Ravi';
7 DELETE FROM CUSTOMER
8 WHERE CUSTID=85;
```

The 'History' tab shows the execution results of the script. The table below summarizes the execution details:

Script	Date	Status	Runtime
Untitled - 4	Sep 28, 2022 12:58:28 PM	3	0.023 s
INSERT INTO CUSTOMER VALUES(99,'Kavin','Mobile'),(100,'Naveena'...		✓	0.006 s
UPDATE CUSTOMER SET PRODUCT='Watch' WHERE NAME='Ravi'		✓	0.012 s
DELETE FROM CUSTOMER WHERE CUSTID=85		✓	0.005 s

OUTPUT:



The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying a table named 'RBC20807.CUSTOMER'. A 'Back' button is in the top right corner. Below the table name, there is an 'Export to CSV' button. The table data is as follows:

CUSTID	NAME	PRODUCT
22	Ravi	Watch
43	Somu	Headphones
99	Kavin	Mobile
100	Naveena	Lap

An 'Activate Windows' watermark is visible in the bottom right corner of the console area.

STUDENT

QUERY:

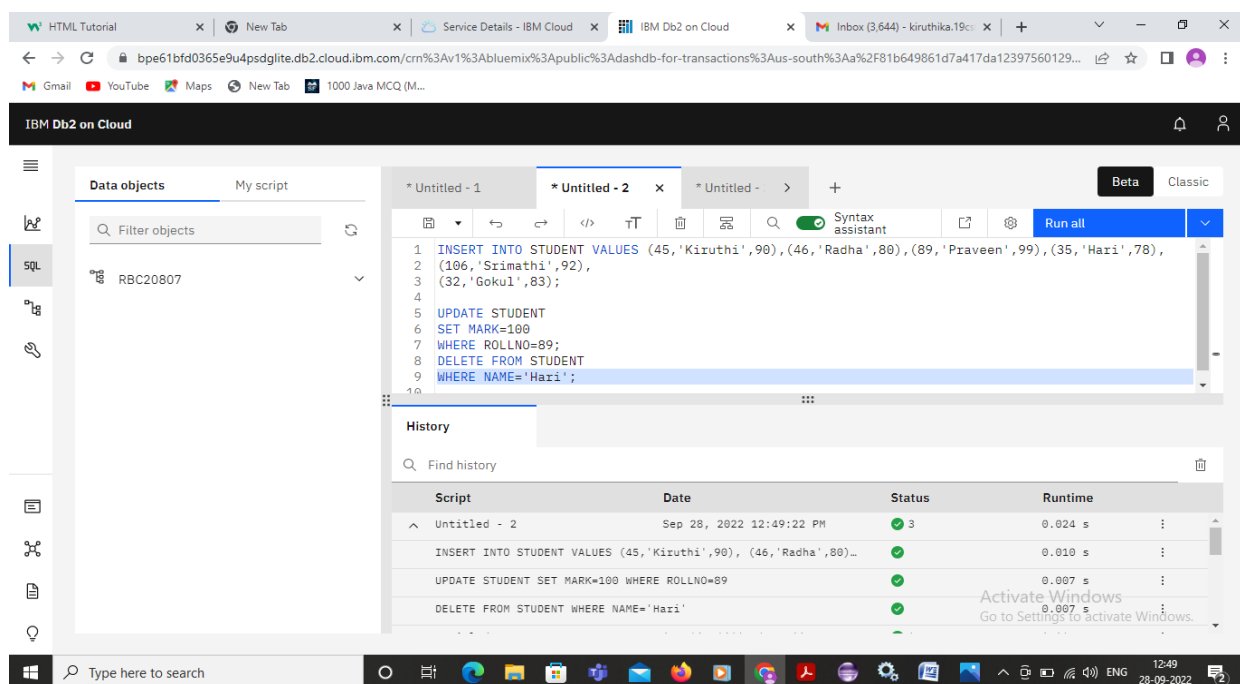
UPDATE STUDENT

SET MARK=100

WHERE ROLLNO=89;

DELETE FROM STUDENT

WHERE NAME='Hari';



The screenshot shows the IBM Db2 on Cloud console with a SQL script being executed. The script is displayed in the 'My script' tab, and the 'Run all' button is visible. The script content is as follows:

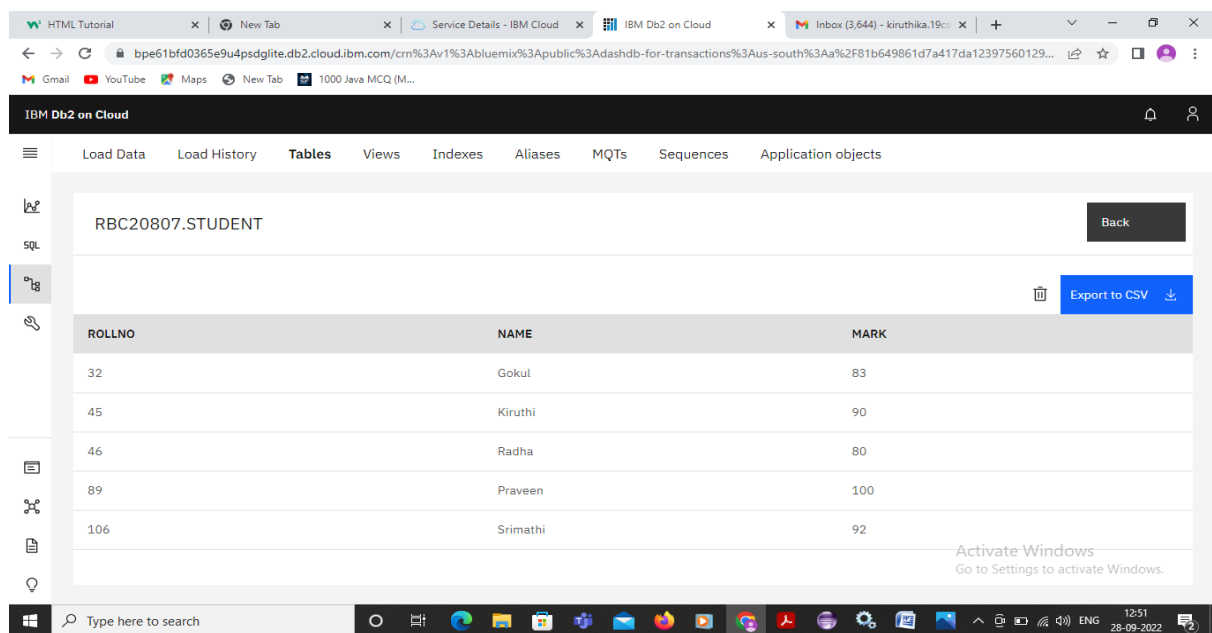
```
1 INSERT INTO STUDENT VALUES (45,'Kizuthi',90),(46,'Radha',80),(89,'Praveen',99),(35,'Hari',78),
2 (106,'Srimathi',92),
3 (32,'Gokul',83);
4
5 UPDATE STUDENT
6 SET MARK=100
7 WHERE ROLLNO=89;
8 DELETE FROM STUDENT
9 WHERE NAME='Hari';
```

The 'History' tab is also visible, showing the execution details of the script. The history table is as follows:

Script	Date	Status	Runtime
Untitled - 2	Sep 28, 2022 12:49:22 PM	✓ 3	0.024 s
INSERT INTO STUDENT VALUES (45,'Kizuthi',90), (46,'Radha',80)...		✓	0.010 s
UPDATE STUDENT SET MARK=100 WHERE ROLLNO=89		✓	0.007 s
DELETE FROM STUDENT WHERE NAME='Hari'		✓	0.007 s

An 'Activate Windows' watermark is visible in the bottom right corner of the console area.

OUTPUT:



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, displaying a table named 'RBC20807.STUDENT'. The table has three columns: 'ROLLNO', 'NAME', and 'MARK'. The data is as follows:

ROLLNO	NAME	MARK
32	Gokul	83
45	Kiruthi	90
46	Radha	80
89	Praveen	100
106	Srimathi	92

Buttons for 'Back' and 'Export to CSV' are visible. The Windows taskbar at the bottom shows the time as 12:51 on 28-09-2022.

FACULTY

QUERY:

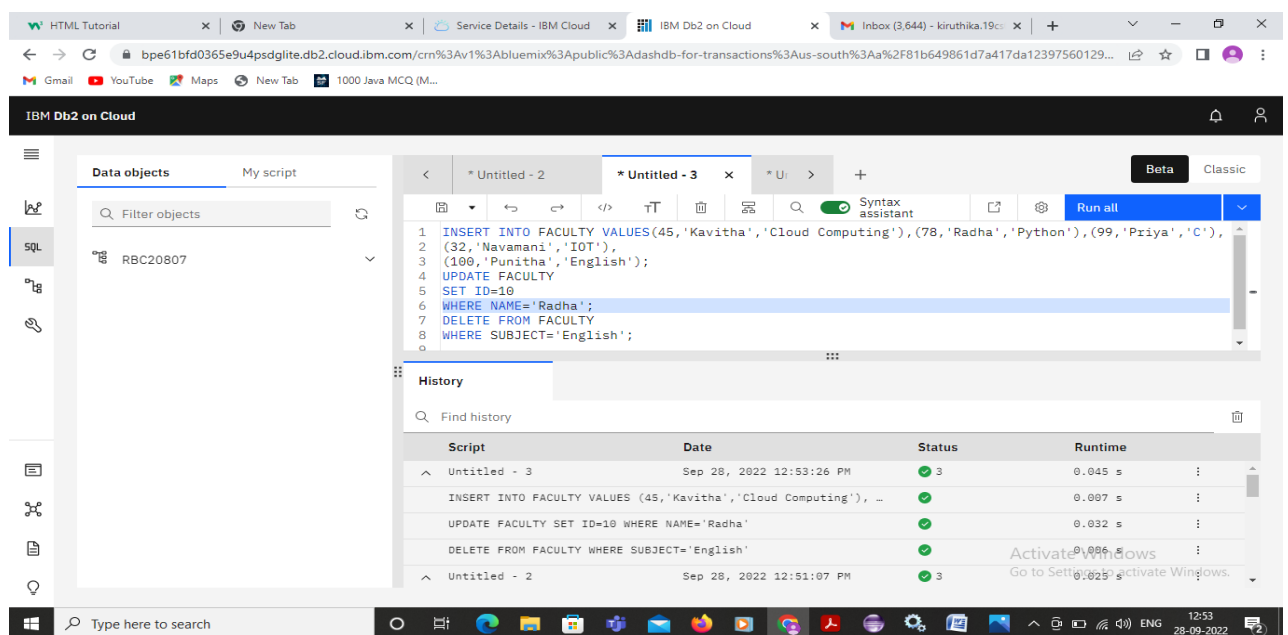
UPDATE FACULTY

SET ID=10

WHERE NAME='Radha';

DELETE FROM FACULTY

WHERE SUBJECT='English';



The screenshot shows the IBM Db2 on Cloud web interface with a SQL script being executed. The script is as follows:

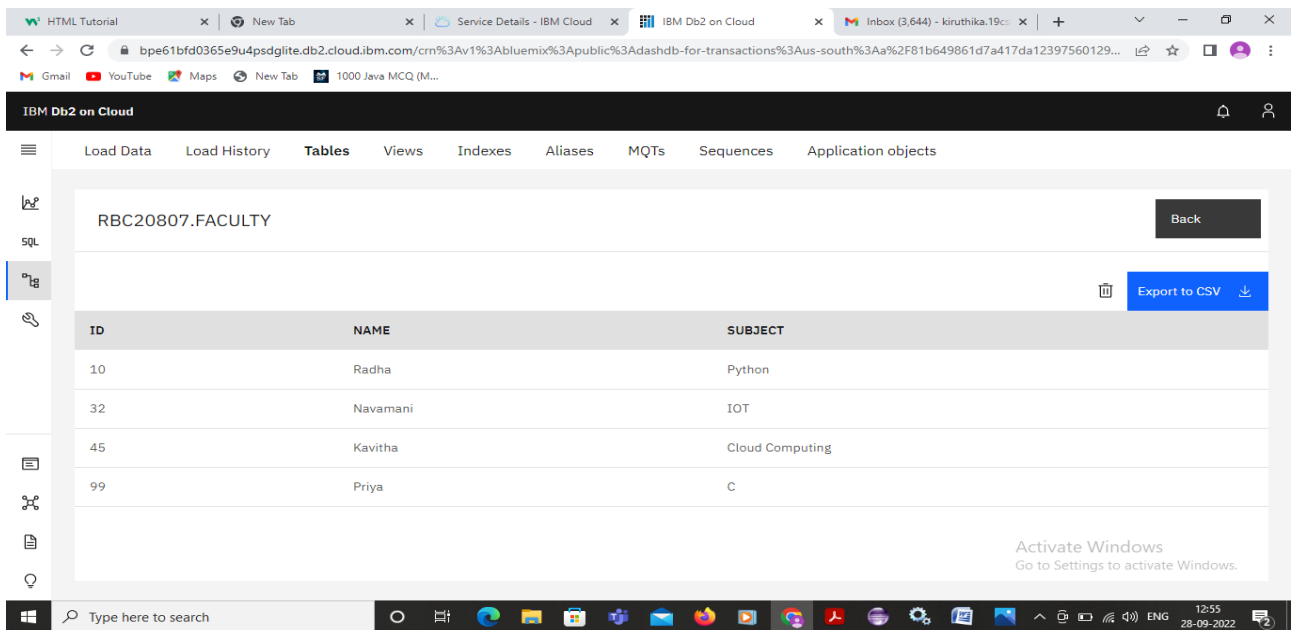
```
1 INSERT INTO FACULTY VALUES (45,'Kavitha','Cloud Computing'), (78,'Radha','Python'), (99,'Priya','C'),
2 (32,'Navamani','IOT'),
3 (100,'Punitha','English');
4 UPDATE FACULTY
5 SET ID=10
6 WHERE NAME='Radha';
7 DELETE FROM FACULTY
8 WHERE SUBJECT='English';
9
```

The 'History' tab shows the execution results:

Script	Date	Status	Runtime
Untitled - 3	Sep 28, 2022 12:53:26 PM	3	0.045 s
INSERT INTO FACULTY VALUES (45,'Kavitha','Cloud Computing'), ...		✓	0.097 s
UPDATE FACULTY SET ID=10 WHERE NAME='Radha'		✓	0.032 s
DELETE FROM FACULTY WHERE SUBJECT='English'		✓	0.006 s
Untitled - 2	Sep 28, 2022 12:51:07 PM	3	0.025 s

The Windows taskbar at the bottom shows the time as 12:53 on 28-09-2022.

OUTPUT:



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, displaying a table named 'RBC20807.FACULTY'. The table has three columns: 'ID', 'NAME', and 'SUBJECT'. The data rows are as follows:

ID	NAME	SUBJECT
10	Radha	Python
32	Navamani	IOT
45	Kavitha	Cloud Computing
99	Priya	C

At the bottom of the interface, there is a Windows taskbar with the search bar and various application icons. The system clock shows 12:55 on 28-09-2022.

VOTERID

QUERY:

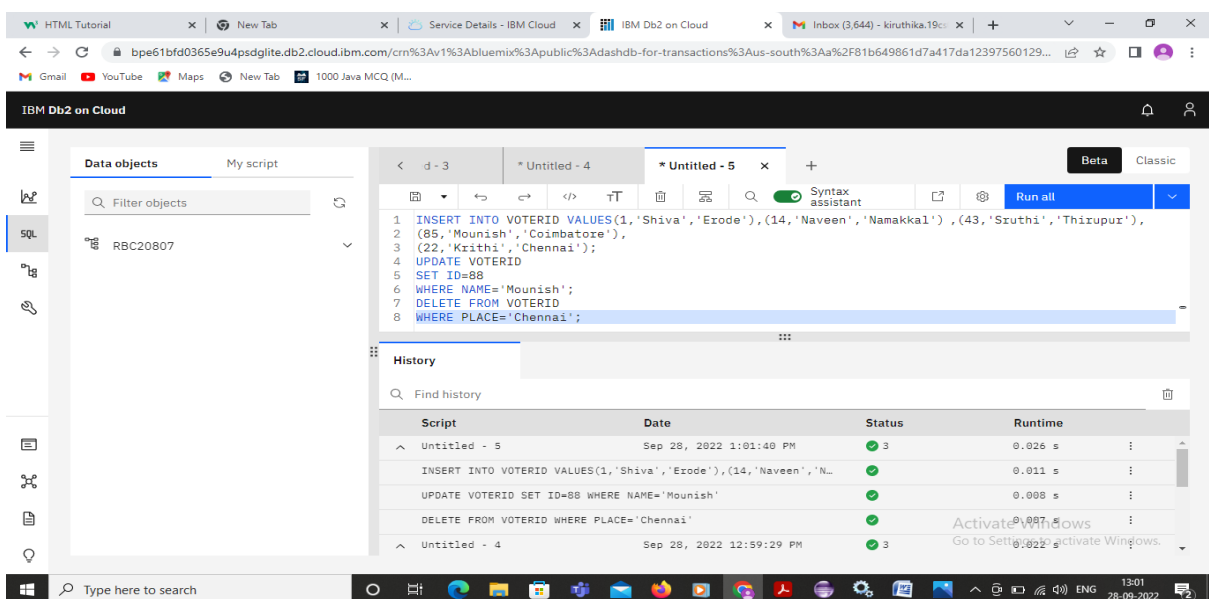
UPDATE VOTERID

SET ID=88

WHERE NAME='Mounish';

DELETE FROM VOTERID

WHERE PLACE='Chennai';



The screenshot shows the IBM Db2 on Cloud web interface with a SQL script editor open. The script contains the following SQL statements:

```
1 INSERT INTO VOTERID VALUES(1,'Shiva','Exode'),(14,'Naveen','Namakkal'),(43,'Szuthi','Thirupur'),
2 (85,'Mounish','Coimbatore'),
3 (22,'Krithi','Chennai');
4 UPDATE VOTERID
5 SET ID=88
6 WHERE NAME='Mounish';
7 DELETE FROM VOTERID
8 WHERE PLACE='Chennai';
```

The 'History' tab is active, showing a table with the execution history of the script:

Script	Date	Status	Runtime
Untitled - 5	Sep 28, 2022 1:01:40 PM	3	0.026 s
INSERT INTO VOTERID VALUES(1,'Shiva','Exode'),(14,'Naveen','N...		0.011 s	
UPDATE VOTERID SET ID=88 WHERE NAME='Mounish'		0.008 s	
DELETE FROM VOTERID WHERE PLACE='Chennai'		0.007 s	
Untitled - 4	Sep 28, 2022 12:59:29 PM	3	

At the bottom of the interface, there is a Windows taskbar with the search bar and various application icons. The system clock shows 13:01 on 28-09-2022.

OUTPUT:

The screenshot shows the IBM Db2 on Cloud interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying a table named 'RBC20807.VOTERID'. The table has three columns: 'ID', 'NAME', and 'PLACE'. The data is as follows:

ID	NAME	PLACE
1	Shiva	Erode
14	Naveen	Namakkal
43	Sruthi	Thirupur
88	Mounish	Coimbatore

Buttons for 'Back', 'Export to CSV', and 'Download' are visible. An 'Activate Windows' watermark is present at the bottom right.

3.LOAD EXCEL COMMA SEPERATED FILE TO db2

The screenshot shows the 'Load Data' section of the IBM Db2 on Cloud interface. The 'Status' tab is selected, displaying a donut chart and the following statistics:

Rows read	Rows loaded	Rows rejected
14	14	0

The 'Settings' tab shows the source as 'My computer' and the target as 'DATABASE.csv'. The 'Load More Data' button is visible. The 'Errors' and 'Warnings' tabs are also present, showing 'No errors' and 'No warnings' respectively. The 'Load Data' job is marked as 'COMPLETE'.

IBM Db2 on Cloud

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

Find schemas or tables Refresh

Tables New table

Name	Schema	Properties
<input type="checkbox"/> CUSTOMER	RBC20807	...
<input checked="" type="checkbox"/> DEMO	RBC20807	...
<input type="checkbox"/> EMPLOYEE	RBC20807	...
<input type="checkbox"/> FACULTY	RBC20807	...
<input type="checkbox"/> STUDENT	RBC20807	...
<input type="checkbox"/> VOTERID	RBC20807	...

Total: 6, selected: 1

Table definition

VOTERID
Approximate 4 rows (32.0 KB)
Updated on 2022-09-28 07:37:14

Name	Data type	Nullable	Length	Scale
ID	INTEGER	Y		0
NAME	VARCHAR	Y	32	0
PLACE	VARCHAR	Y	32	0

View data

Activate Windows
Go to Settings to activate Windows.

IBM Db2 on Cloud

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

RBC20807.DEMO Back

Export to CSV

ATTENDANCE_FOR_	CLASS_LIST	COLUMN_2	COLUMN_3	COLUMN_4	COLUMN_5	COLUMN_6	COLUMN_7	COLUMN_8
19CS054		""	""	"11:28"	"11:54"	"27"	"1"	
19CS055		""	""	"11:30"	"11:54"	"25"	"1"	
19CSL01		""	""	"11:30"	"11:54"	"25"	"1"	
19CSL09		""	""	"11:30"	"11:54"	"25"	"1"	
19CSL15		""	""	"11:30"	"11:54"	"25"	"1"	
Date:	"2022-03-04"	"Time:"	"11:26"	"Meet ID:"	"uez-gzfw-cro"			

Activate Windows
Go to Settings to activate Windows.

IBM Db2 on Cloud

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

RBC20807.DEMO Back

Export to CSV

ATTENDANCE_FOR_	CLASS_LIST	COLUMN_2	COLUMN_3	COLUMN_4	COLUMN_5	COLUMN_6	COLUMN_7	COLUMN_8
Help/more info:	"https://tinyurl.com/y5peu3nk"							
Kavitha		"	"	"11:28"	"11:51"	"24"	"1"	
Names	"2022-03-04"	"Email"	"Comments"	"Arrival time"	"Last Seen"	"# of Checks"	"Joined"	"Details"
Peter		"	"	"11:30"	"11:54"	"25"	"1"	
© Google Meet Attendance	https://tinyurl.com/y6k2yqts							

Activate Windows
Go to Settings to activate Windows.

4.CONNECT PYTHON TO db2:

ASS - Jupyter Notebook

about:blank

localhost:8888/notebooks/ASS.ipynb#

jupyter ASS Last Checkpoint: a few seconds ago (unsaved changes)

File Edit View Insert Cell Kernel Widgets Help

Python 3

```
In [1]: import ibm_db

hostname = '9938aec0-8105-433e-8bf9-0fbb7e483086.clogj3sd0gtu0lqde00.databases.appdomain.cloud'
uid = 'qfk33398'
pwd = 'jnffMalMeTzcout'
driver = '{IBM DB2 ODBC DRIVER}'
db = 'bludb'
port = '32459'
protocol = 'TCP/IP'
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.clogj3sd0gtu0lqde00.databases.appdomain.cloud;PORT = 32459;UID = qfk33398;SECURITY = SSL;SSLServerCertificate = CRT1.crt;PWD = jnffMalMeTzcout;
connect to database
```

In []:

CODE :

```
import ibm_db

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

uid = 'qfk33398'

pwd = 'jnfFMaLlMeTZcout'

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())
```