
DBMS LAB



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Course: MCA 3rd Semester

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Assignment

Question :-

1. Using the information, implement the schema using Transact SQL (show SQL statements for each table). Implement the constraints as well.
2. Create the table shown here in SQL and show the statements you used.

Table: Employee

ATTRIBUTE (FIELD) NAME	DATA DECLARATION
EMP_NUM	CHAR(3)
EMP_LNAME	VARCHAR(15)
EMP_FNAME	VARCHAR(15)
EMP_INITIAL	CHAR(1)
EMP_HIREDATE	DATE
JOB_CODE	CHAR(3)

3. Having created the table structure in question 2, write the SQL code to enter the rows for the table shown below.

	EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE
►	01	News	John	G	08-Nov-00	502
	102	Senior	David	H	12-Jul-89	501
	103	Arbough	June	E	01-Dec-96	500
	104	Ramoras	Anne	K	15-Nov-87	501
	105	Johnson	Alice	K	01-Feb-93	502
	106	Smithfield	William		22-Jun-04	500
	107	Alonzo	Maria	D	10-Oct-93	500
	108	Washington	Ralph	B	22-Aug-91	501
	109	Smith	Larry	W	18-Jul-97	501

4. Write the SQL code to change the job code to 501 for the person whose personnel number is 107. After you have completed the task, examine the results, and then reset the job code to its original value.

5. Assuming that the data shown in the Employee table have been entered, write the SQL code that lists all attributes for a job code of 502.
6. Write the SQL code to delete the row for the person named William Smithfield, who was hired on June 22, 2004, and whose job code classification is 500. (Hint: Use logical operators to include all the information given in this problem.)
7. Add the attributes EMP_PCT and PROJ_NUM to the Employee table. The EMP_PCT is the bonus percentage to be paid to each employee.
8. Using a single command, write the SQL code that will enter the project number (PROJ_NUM) = 18 for all employees whose job classification (JOB_CODE) is 500.
9. Using a single command, write the SQL code that will enter the project number (PROJ_NUM) = 25 for all employees whose job classification (JOB_CODE) is 502 or higher.
10. Write the SQL code that will change the PROJ_NUM to 14 for those employees who were hired before January 1, 1994, and whose job code is at least 501. (You may assume that the table will be restored to its original condition preceding this question.)

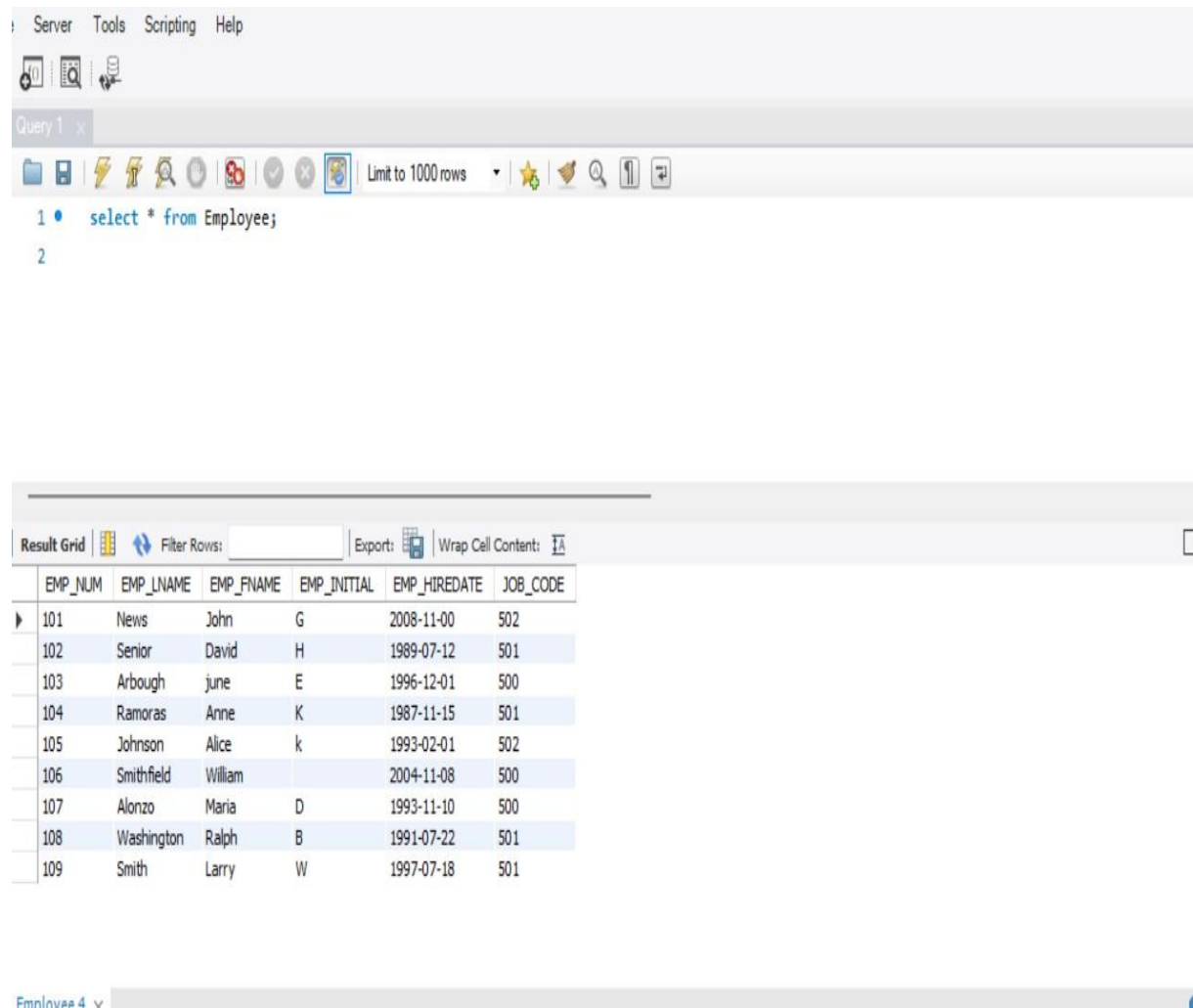
ANSWER 2: CREATE INTO TABLE.

```
create table Employee(  
  EMP_NUM CHAR(3),  
  EMP_LNAME VARCHAR(15),  
  EMP_FNAME VARCHAR(15),  
  EMP_INITIAL CHAR(1),  
  EMP_HIREDATE DATE,  
  JOB_CODE CHAR(3)  
);
```

ANSWER 3: INSERT INTO TABLE .

```
INSERT INTO Employee VALUES(  
  102,'Senior','David','H','89-07-12',501  
);  
INSERT INTO Employee VALUES(  
  103,'Arbough','june','E','96-12-01',500  
);  
INSERT INTO Employee VALUES(  
  104,'Ramoras','Anne','K','87-11-15',501  
);  
INSERT INTO Employee VALUES(  
  105,'Johnson','Alice','k','93-02-01',502  
);  
INSERT INTO Employee VALUES(  
  106,'Smithfield','William','','04-11-08',500  
);  
INSERT INTO Employee VALUES(  
  107,'Alonzo','Maria','D','93-11-10',500  
);  
INSERT INTO Employee VALUES(  
  108,'Washington','Ralph','B','91-07-22',501  
);  
INSERT INTO Employee VALUES(  
  109,'Smith','Larry','W','97-07-18',501  
);
```

.TABLE:-



The screenshot shows a database query tool interface. At the top, there is a menu bar with 'Server', 'Tools', 'Scripting', and 'Help'. Below the menu bar is a toolbar with various icons. The main area displays a SQL query: `select * from Employee;`. Below the query, there is a 'Result Grid' section. The 'Result Grid' has a toolbar with 'Filter Rows', 'Export', and 'Wrap Cell Content' options. The data is presented in a table with the following columns: EMP_NUM, EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, and JOB_CODE. The table contains 10 rows of data, with the first row highlighted in blue. The status bar at the bottom shows 'Employees 4'.

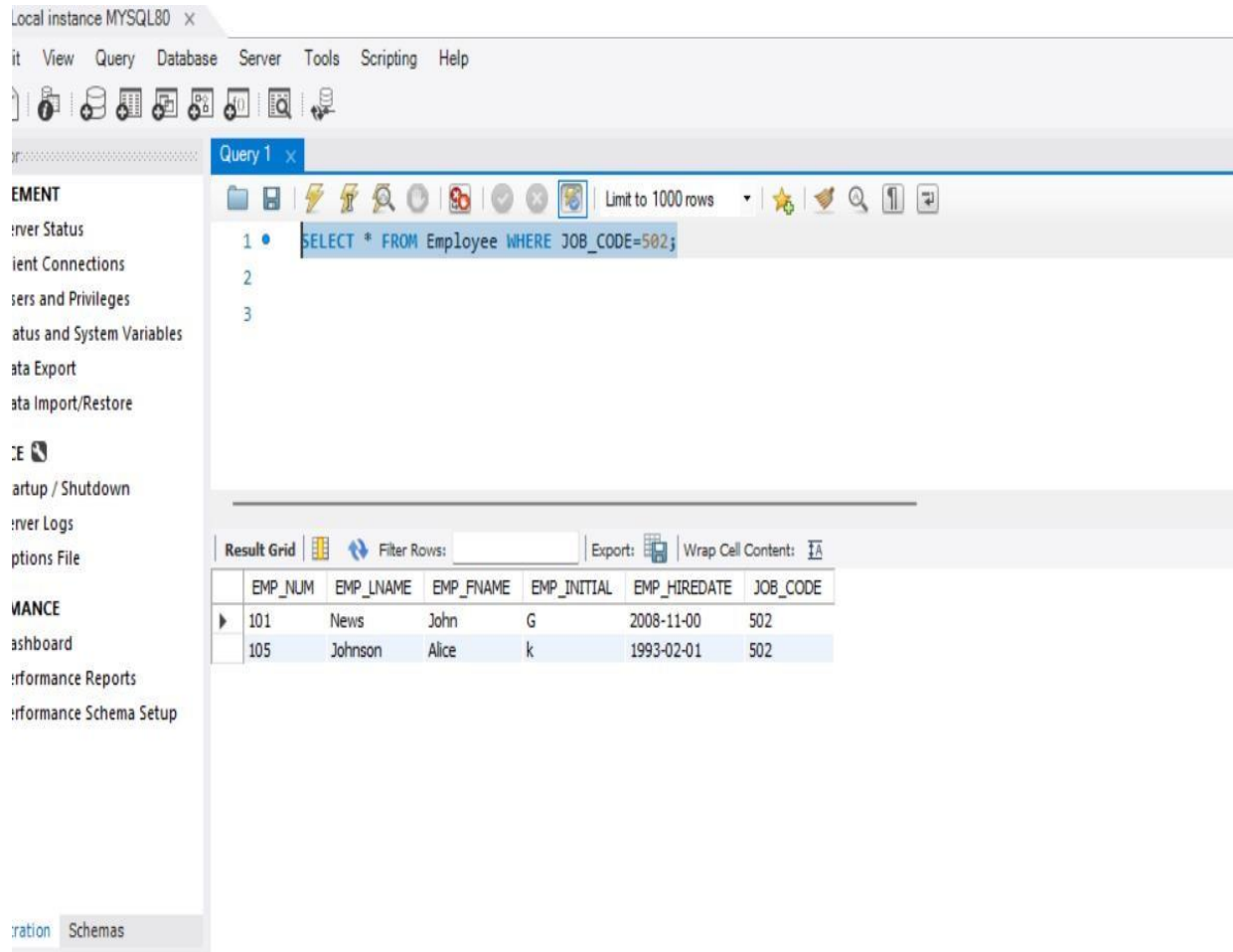
	EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE
▶	101	News	John	G	2008-11-00	502
	102	Senior	David	H	1989-07-12	501
	103	Arbough	june	E	1996-12-01	500
	104	Ramoras	Anne	K	1987-11-15	501
	105	Johnson	Alice	k	1993-02-01	502
	106	Smithfield	William		2004-11-08	500
	107	Alonzo	Maria	D	1993-11-10	500
	108	Washington	Ralph	B	1991-07-22	501
	109	Smith	Larry	W	1997-07-18	501

ANSWER 4:

UPDATE Employee SET
JOB_CODE=501 where EMP_NUM=107;

ANSWER 5:

```
SELECT * FROM Employee WHERE JOB_CODE=502;
```



The screenshot shows the MySQL Workbench interface. The query editor contains the SQL statement: `SELECT * FROM Employee WHERE JOB_CODE=502;`. The query has been executed, and the results are displayed in the Result Grid. The Result Grid shows two rows of data:

EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE
101	News	John	G	2008-11-00	502
105	Johnson	Alice	k	1993-02-01	502

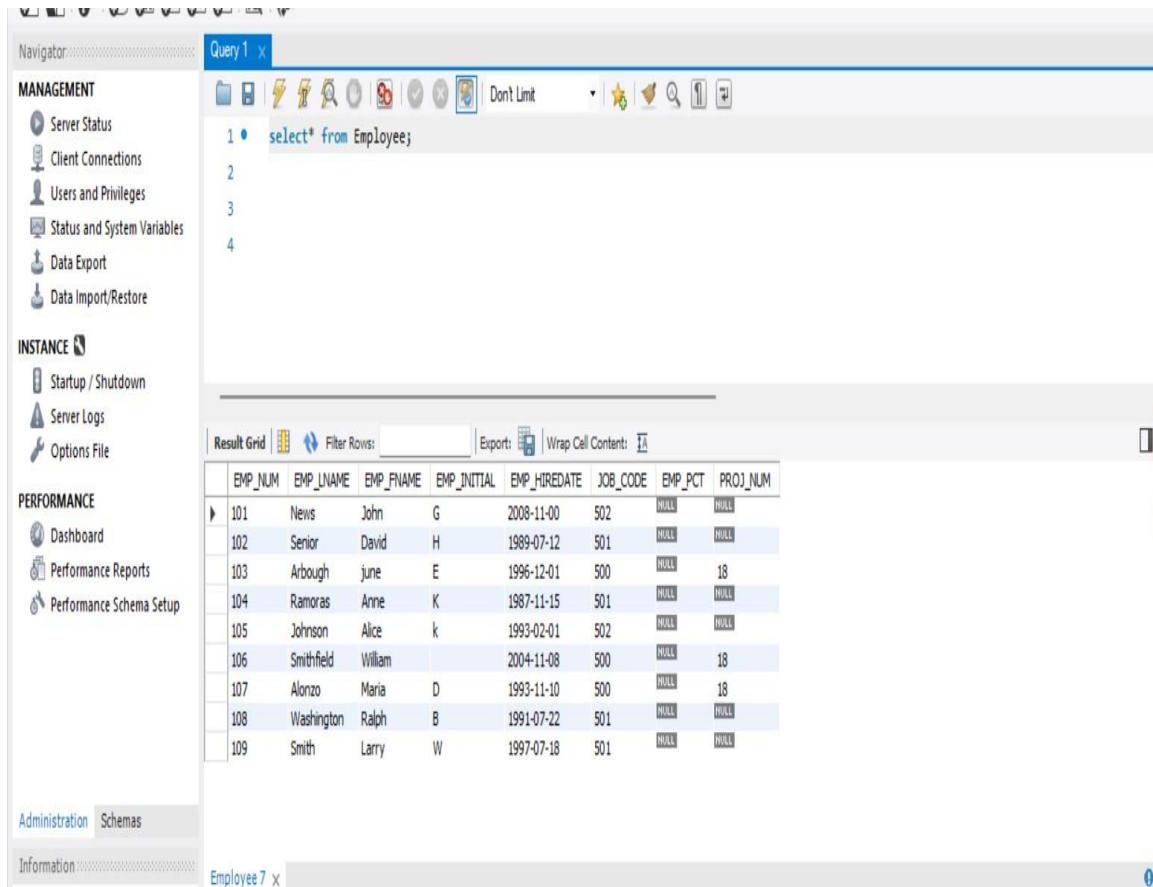
ANSWER : 6

```
DELETE FROM Employee WHERE EMP_LNAME='William' ||  
EMP_HIREDATE='04-11-08' || JOB_CODE=500;
```


ANSWER 8:

UPDATE Employee SET PROJ_NUM = 18 where JOB_CODE = '500';

SELECT * FROM Employee;



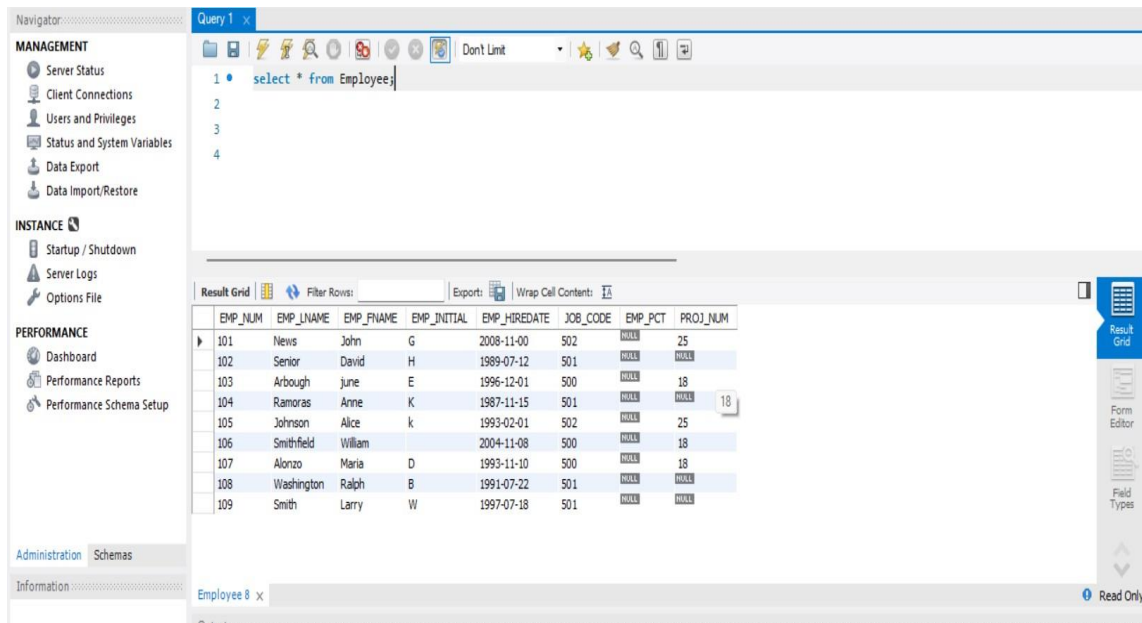
The screenshot shows the SQL Enterprise Manager interface. The left pane contains a tree view with categories: MANAGEMENT (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup / Shutdown, Server Logs, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The bottom pane shows 'Administration' and 'Schemas' tabs. The main area displays 'Query 1' with the SQL statement: `select* from Employee;`. Below the query, the 'Result Grid' shows the data from the Employee table. The grid has columns: EMP_NUM, EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, JOB_CODE, EMP_PCT, and PROJ_NUM. The data is as follows:

EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE	EMP_PCT	PROJ_NUM
101	News	John	G	2008-11-00	502	NULL	NULL
102	Senior	David	H	1989-07-12	501	NULL	NULL
103	Arbough	june	E	1996-12-01	500	NULL	18
104	Ramoras	Anne	K	1987-11-15	501	NULL	NULL
105	Johnson	Alice	k	1993-02-01	502	NULL	NULL
106	Smithfield	William		2004-11-08	500	NULL	18
107	Alonzo	Maria	D	1993-11-10	500	NULL	18
108	Washington	Ralph	B	1991-07-22	501	NULL	NULL
109	Smith	Larry	W	1997-07-18	501	NULL	NULL

ANSWER 9:

UPDATE Employee SET PROJ_NUM = 25 where JOB_CODE >= '502';

SELECT * FROM Employee;



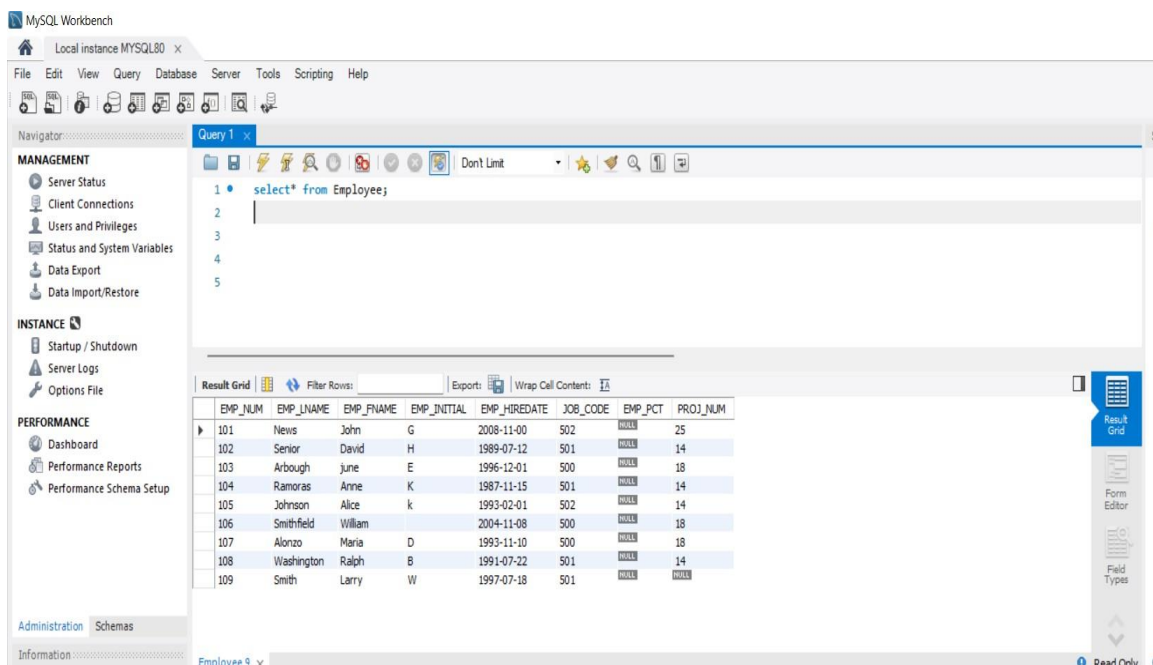
The screenshot shows the SQL Server Enterprise Manager interface. The left pane contains a tree view with categories: MANAGEMENT (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup / Shutdown, Server Logs, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The right pane shows a query window with the text 'select * from Employee;'. Below the query window, the 'Result Grid' tab is active, displaying a table with 9 rows and 8 columns. The columns are EMP_NUM, EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, JOB_CODE, EMP_PCT, and PROJ_NUM. The data is as follows:

EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE	EMP_PCT	PROJ_NUM
101	News	John	G	2008-11-00	502	NULL	25
102	Senior	David	H	1989-07-12	501	NULL	14
103	Arbough	June	E	1996-12-01	500	NULL	18
104	Ramoras	Anne	K	1987-11-15	501	NULL	14
105	Johnson	Alice	k	1993-02-01	502	NULL	14
106	Smithfield	William		2004-11-08	500	NULL	18
107	Alonzo	Maria	D	1993-11-10	500	NULL	18
108	Washington	Ralph	B	1991-07-22	501	NULL	14
109	Smith	Larry	W	1997-07-18	501	NULL	14

ANSWER 10:

UPDATE Employee SET PROJ_NUM = 14 where EMP_HIREDATE < '1994-01-01' AND JOB_CODE >= '501';

SELECT * FROM Employee;



The screenshot shows the MySQL Workbench interface. The left pane contains a tree view with categories: MANAGEMENT (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup / Shutdown, Server Logs, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The right pane shows a query window with the text 'select* from Employee;'. Below the query window, the 'Result Grid' tab is active, displaying a table with 9 rows and 8 columns. The columns are EMP_NUM, EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, JOB_CODE, EMP_PCT, and PROJ_NUM. The data is as follows:

EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE	EMP_PCT	PROJ_NUM
101	News	John	G	2008-11-00	502	NULL	25
102	Senior	David	H	1989-07-12	501	NULL	14
103	Arbough	June	E	1996-12-01	500	NULL	18
104	Ramoras	Anne	K	1987-11-15	501	NULL	14
105	Johnson	Alice	k	1993-02-01	502	NULL	14
106	Smithfield	William		2004-11-08	500	NULL	18
107	Alonzo	Maria	D	1993-11-10	500	NULL	18
108	Washington	Ralph	B	1991-07-22	501	NULL	14
109	Smith	Larry	W	1997-07-18	501	NULL	14

