1. Write the SQL code to create the table named ‘EMP\_1’. This table is a subset of the EMPLOYEE table, and the structure of the table is summarized as shown below.

CREATE TABLE EMP\_1

(

EMP\_NUM CHAR(3),

EMP\_LNAME VARCHAR(15) NOT NULL,

EMP\_FNAME VARCHAR(15) NOT NULL,

EMP\_INITIAL CHAR(1),

EMP\_HIREDATE DATE,

JOB\_CODE CHAR(3),

PRIMARY KEY (EMP\_NUM),

FOREIGN KEY (JOB\_CODE) REFERENCES JOB);

1. After creating the table ‘EMP\_1’ in Qn1), write the SQL code to enter the 1st 2 rows of data based on the table shown below.

INSERT INTO EMP\_1

VALUES ("101", "News", "John", "G", "11/8/2000", "502");

INSERT INTO EMP\_1

VALUES ("102", "Senior", "David", "H", '7/12/1989', "501");

1. Not Applicable
2. Write the SQL code to list all attributes information for job code of 501

SELECT \*

FROM EMP\_1

WHERE JOB\_CODE='501';

1. Write the SQL code to change the job code to 501, for the person whose employee number (EMP\_NUM) is 107

UPDATE EMP\_1 SET JOB\_CODE = '501'

WHERE EMP\_NUM='107';

1. Write the SQL code to delete the row for the person named ‘Ramaroas Anne’, hired on Nov 15, 1987 and whose job code is 501.

DELETE \*

FROM EMP\_1

WHERE EMP\_LNAME='Ramoras'

AND EMP\_FNAME='Anne'

AND EMP\_HIREDATE=#11/15/1987#

AND JOB\_CODE='501';

1. Write the SQL code to create an **empty table**, named ‘EMP\_2’. EMP\_2 should have the exact same attributes, relationships and constraints as table EMP\_1.

CREATE TABLE EMP\_2 (

EMP\_NUM CHAR(3),

EMP\_LNAME VARCHAR(15) NOT NULL,

EMP\_FNAME VARCHAR(15) NOT NULL,

EMP\_INITIAL CHAR(1),

EMP\_HIREDATE DATE,

JOB\_CODE CHAR(3),

PRIMARY KEY (EMP\_NUM),

FOREIGN KEY (JOB\_CODE) REFERENCES JOB);

1. After creating the empty table EMP\_2 in Qn 7), write the SQL code to alter table EMP\_2 to include a new attribute / columns named ‘EMP\_PCT’. The data type is ‘NUMBER’.

ALTER TABLE EMP\_2

ADD EMP\_PCT NUMBER

1. Write the SQL code to alter table EMP\_2 to include another new attribute / columns named ‘PROJ\_NUM’. The data type is ‘CHAR(3)’

ALTER TABLE EMP\_2

ADD PROJ\_NUM CHAR(3);

1. Not Applicable
2. Referring to table EMP\_2, write the SQL code to change the EMP\_PCT value to 3.85, for the person whose employee number(EMP)NUM) is 103

UPDATE EMP\_2 SET EMP\_PCT = 3.85

WHERE EMP\_NUM='103';

1. Referring to table EMP\_2, using a single SQL command, write the SQL code that will change the project number (PROJ\_NUM) to 18, for all employees whose job classification (JOB\_CODE) is 500

UPDATE EMP\_2 SET PROJ\_NUM = 18

WHERE JOB\_CODE='500';

1. Referring to table EMP\_2, using a single SQL command, write the SQL code that will change the project number (PROJ\_NUM) to 25, for all employees whose job classification (JOB\_CODE) is 502 or higher.

UPDATE EMP\_2 SET PROJ\_NUM = 25

WHERE JOB\_CODE>='502';

1. Referring to table EMP\_2, write the SQL code that will change the PROJ\_NUM to 14, for those employees who were hired before Jan 1, 1994 and whose job code is at least 501.

UPDATE EMP\_2 SET PROJ\_NUM = 14

WHERE EMP\_HIREDATE<#1/1/1994#

AND JOB\_CODE>='501';

1. Referring to table EMP\_2, write the SQL code to list all employees whose last names **start with** ‘Smith’

SELECT \*

FROM EMP\_2

WHERE EMP\_LNAME LIKE 'SMITH\*';

1. Referring to the tables EMPLOYEE, PROJECT and JOB, write the SQL code that will return the results as shown in the figure below

SELECT PROJECT.PROJ\_NAME, PROJECT.PROJ\_VALUE, PROJECT.PROJ\_BALANCE, EMPLOYEE.EMP\_LNAME, EMPLOYEE.EMP\_FNAME, EMPLOYEE.EMP\_INITIAL, JOB.JOB\_CODE, JOB.JOB\_DESCRIPTION, JOB.JOB\_CHG\_HOUR

FROM EMPLOYEE, PROJECT, JOB

WHERE PROJECT.EMP\_NUM=EMPLOYEE.EMP\_NUM AND EMPLOYEE.JOB\_CODE=JOB.JOB\_CODE;

1. Referring to table JOB, write the SQL code to find the average job’s charge per hour.

SELECT AVG(JOB\_CHG\_HOUR) AS AVERAGE\_HOUR

FROM JOB;

1. Write the SQL code that will produce a listing for the data in JOB table, order by job’s charge per hour, in descending order.

SELECT \*

FROM JOB

ORDER BY JOB\_CHG\_HOUR DESC;

1. Referring to the table EMPLOYEE, write the SQL code that will list only the distinct job code number.

SELECT DISTINCT JOB\_CODE

FROM EMPLOYEE;

1. Write the SQL code to compute and update all the ASSIGN\_CHARGE values in the ASSIGNMENT table, given that the value is given by the formula: ASSIGN\_CHARGE = ASSIGN\_CHG\_HR \* ASSIGN\_HOURS

UPDATE ASSIGNMENT SET ASSIGN\_CHARGE = ASSIGN\_CHG\_HR\*ASSIGN\_HOURS;

1. Using data from assignment and employee tables, write the sql code that will produce the total number of hours worked for each employee, and the total charges based on those hours worked.

SELECT ASSIGNMENT.EMP\_NUM, EMPLOYEE.EMP\_LNAME, SUM (ASSIGNMENT.ASSIGN\_HOURS) AS TOTAL\_ASSIGN\_HOURS, SUM (ASSIGNMENT.ASSIGN\_CHARGE) AS TOTAL\_ASSIGN\_CHARGE

FROM ASSIGNMENT, EMPLOYEE

WHERE EMPLOYEE.EMP\_NUM = ASSIGNMENT.EMP\_NUM

GROUP BY ASSIGNMENT.EMP\_NUM, EMPLOYEE.EMP\_LNAME;