**COMPUTER SCIENCE**

**MYSQL ASSAIGNMENT 1**

**R.A.DEEPAK RAJA**

**XII – “C”**

**12307**

**QUESTION-1**

CREATE TABLE empl

(epmno PRIMARY KEY ,

ename varchar(25) NOT NULL ,

job varchar(25) NOT NULL ,

mgr integer ,

hiredate DATE ,

sal DECIMAL ,

comm float CHECK(comm BETWEEN 0 AND 2000 ) ,

deptno integer);

**QUESTION-2**

INSERT INTO empl

VALUES(8369,"SMITH","CLERK",8902,1990-12-18,800 , NULL , NULL);

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Empno** | **Ename** | **Job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8521** | **SETH** | **SALESMAN** | **8698** | **1991-02-22** | **1250** | **500** | **30** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1250** | **1400** | **30** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |
| **8888** | **SCOTT** | **ANALYST** | **8566** | **1992-12-09** | **3000** | **NULL** | **20** |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1500** | **0.00** | **30** |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1100** | **NULL** | **20** |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **950** | **NULL** | **30** |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3000** | **NULL** | **20** |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1300** | **NULL** | **10** |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **800** | **NULL** | **20** |

**QUESTION-3**

INSERT INTO empl

VALUES(8499,"ANYA","SALESMAN",8698,1991-02-22,1500,300,30);

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Empno** | **ename** | **Job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8521** | **SETH** | **SALESMAN** | **8698** | **1991-02-22** | **1250** | **500** | **30** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1250** | **1400** | **30** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |
| **8888** | **SCOTT** | **ANALYST** | **8566** | **1992-12-09** | **3000** | **NULL** | **20** |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1500** | **0.00** | **30** |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1100** | **NULL** | **20** |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **950** | **NULL** | **30** |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3000** | **NULL** | **20** |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1300** | **NULL** | **10** |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **800** | **NULL** | **20** |
| **8499** | **ANYA** | **SALESMAN** | **8698** | **1991-02-20** | **1600** | **300** | **30** |

**QUESTION-4**

ALTER TABLE empl

ADD qualificationVARCHAR(20);

SELECT \* FROM empl;

**OUTPUT:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **empno** | **ename** | **Job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** | **qualification** |
| **8521** | **SETH** | **SALESMAN** | **8698** | **1991-02-22** | **1250** | **500** | **30** |  |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |  |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1250** | **1400** | **30** |  |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |  |
| **8882** | **SHIAVNSH** | **MANA GER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |  |
| **8888** | **SCOTT** | **ANALYST** | **8566** | **1992-12-09** | **3000** | **NULL** | **20** |  |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |  |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1500** | **0.00** | **30** |  |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1100** | **NULL** | **20** |  |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **950** | **NULL** | **30** |  |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3000** | **NULL** | **20** |  |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1300** | **NULL** | **10** |  |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **800** | **NULL** | **20** |  |
| **8499** | **ANYA** | **SALESMAN** | **8698** | **1991-02-20** | **1600** | **300** | **30** |  |

**QUESTION-5**

SELECT ename FROM empl

WHERE mgr = 8902 OR mgr = 8888;

**OUTPUT:**

|  |
| --- |
| **Ename** |
| **SMITH** |
| **ANOOP** |

**QUESTION-6**

SELECT ename ,sal FROM empl

WHERE deptno = 20;

**OUTPUT:**

|  |  |
| --- | --- |
| **Ename** | **sal** |
| **SMITH** | **800** |
| **MAHADEVAN** | **2985** |
| **SCOTT** | **3000** |
| **ANOOP** | **1100** |
| **FAKIR** | **3000** |

**QUESTION-7**

SELECT ename ,sal FROM empl

WHERE comm IS NULL;

**OUTPUT:**

|  |  |
| --- | --- |
| **Ename** | **salary** |
| **SMITH** | **800** |
| **MAHADEVAN** | **2985** |
| **BINA** | **2850** |
| **SHIAVNSH** | **2450** |
| **SCOTT** | **3000** |
| **AMIR** | **5000** |
| **ANOOP** | **1100** |
| **JATIN** | **950** |
| **FAKIR** | **3000** |
| **MITA** | **1300** |

**QUESTION-8**

SELECT ename ,deptno FROM empl

WHERE job = "CLERK";

**OUTPUT:**

|  |  |
| --- | --- |
| **ename** | **Deptno** |
| **SMITH** | **20** |
| **ANOOP** | **20** |
| **JATIN** | **30** |
| **MITA** | **10** |

**QUESTION-9**

SELECT ename FROM empl

WHERE job = "ANALYST" OR job = "SALESMAN";

**OUTPUT:**

|  |
| --- |
| **Ename** |
| **ANYA** |
| **SETH** |
| **MOMIN** |
| **SCOTT** |
| **KULDEEP** |
| **FAKIR** |

**QUESTION-10**

SELECT \* FROM empl

WHERE mgr IS NULL;

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |

**QUESTION-11**

UPDATE empl

SET sal= sal+ (sal \* 10/100)

WHERE deptno = 10 OR deptno = 20;

SELECT ename ,sal

FROM empl

WHERE deptno = 10 OR deptno = 20;

**OUTPUT:**

|  |  |
| --- | --- |
| **Ename** | **salary** |
| **SMITH** | **800** |
| **MAHADEVAN** | **2985** |
| **SHIAVNSH** | **2450** |
| **SCOTT** | **3000** |
| **AMIR** | **5000** |
| **ANOOP** | **1100** |
| **FAKIR** | **3000** |
| **MITA** | **1300** |

**QUESTION-12**

SELECT ename ,sal \* 0.02 AS commission

FROM empl

WHERE sal BETWEEN 1500 AND 3000;

**OUTPUT:**

|  |  |
| --- | --- |
| **Ename** | **commission** |
| **ANYA** | **32.0** |
| **MAHADEVAN** | **59.7** |
| **BINA** | **57.0** |
| **SHIVANSH** | **49.0** |
| **SCOTT** | **60.0** |
| **KULDEEP** | **30.0** |
| **FAKIR** | **60.0** |

**QUESTION-13**

UPDATE empl

SET sal = sal + (sal\* 5/100);

SELECT \* FROM empl ;

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **empno** | **Ename** | **job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **840** | **NULL** | **20** |
| **8499** | **ANYA** | **SALESMAN** | **8698** | **1991-02-20** | **1680** | **300** | **30** |
| **8521** | **SETH** | **SALESMAN** | **8698** | **1991-02-22** | **1312** | **500** | **30** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **3134** | **NULL** | **20** |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1312** | **1400** | **30** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2992** | **NULL** | **30** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2572** | **NULL** | **10** |
| **8888** | **SCOTT** | **ANALYST** | **8566** | **1992-12-09** | **3150** | **NULL** | **20** |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5250** | **NULL** | **10** |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1575** | **0** | **30** |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1155** | **NULL** | **20** |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **977** | **NULL** | **30** |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3150** | **NULL** | **20** |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1365** | **NULL** | **10** |

**QUESTION-14**

ALTER TABLE empl

ADD amount DECIMAL;

UPDATE empl

SET amount = (sal + (sal\*7/100)) - sal;

SELECT ename ,sal , amount FROM empl;

**OUTPUT:**

|  |  |  |
| --- | --- | --- |
| **Ename** | **salary** | **Amount** |
| **SMITH** | **800** | **56** |
| **ANYA** | **1600** | **112** |
| **SETH** | **1250** | **87** |
| **MAHADEVAN** | **2985** | **208** |
| **MOMIN** | **1250** | **87** |
| **BINA** | **2850** | **199** |
| **SHIAVNSH** | **2450** | **171** |
| **SCOTT** | **3000** | **210** |
| **AMIR** | **5000** | **350** |
| **KULDEEP** | **1500** | **105** |
| **ANOOP** | **1100** | **77** |
| **JATIN** | **950** | **66** |
| **FAKIR** | **3000** | **210** |
| **MITA** | **1300** | **91** |

**QUESTION-15**

SELECT SUM(sal) "amount" , deptno FROM empl

GROUP BY deptno;

**OUTPUT:**

|  |  |
| --- | --- |
| **Amount** | **Deptno** |
| **8750** | **10** |
| **10885** | **20** |
| **9400** | **30** |

**QUESTION-16**

SELECT epmno ,deptno FROM empl;

**OUTPUT:**

|  |  |
| --- | --- |
| **empno** | **Deptno** |
| **8369** | **20** |
| **8499** | **30** |
| **8521** | **30** |
| **8566** | **20** |
| **8654** | **30** |
| **8698** | **30** |
| **8882** | **10** |
| **8888** | **20** |
| **8839** | **10** |
| **8844** | **30** |
| **8886** | **20** |
| **8900** | **30** |
| **8902** | **20** |
| **8934** | **10** |

**QUESTION-17**

SELECT MIN(sal) , MAX(sal) FROM empl;

**OUTPUT:**

|  |  |
| --- | --- |
| **MIN** | **MAX** |
| **800** | **5000** |

**QUESTION-18**

SELECT COUNT(epmno) FROM empl

WHERE comm IS NULL;

**OUTPUT:**

|  |
| --- |
| **Count** |
| **10** |

**QUESTION-19**

SELECT job FROM empl;

**OUTPUT:**

|  |
| --- |
| **job** |
| **CLERK** |
| **SALESMAN** |
| **SALESMAN** |
| **MANAGER** |
| **SALESMAN** |
| **MANAGER** |
| **MANAGER** |
| **ANALYST** |
| **PRESIDENT** |
| **SALESMAN** |
| **CLERK** |
| **CLERK** |
| **ANALYST** |
| **CLERK** |

**QUESTION-20**

SELECT \* FROM empl

ORDER BY hiredate;

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **empno** | **ename** | **job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1250** | **1400** | **30** |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **800** | **NULL** | **20** |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1300** | **NULL** | **10** |
| **8499** | **ANYA** | **SALESMAN** | **8698** | **1991-02-20** | **1600** | **300** | **30** |
| **8521** | **SETH** | **SALESMAN** | **8698** | **1991-02-22** | **1250** | **500** | **30** |
| **8888** | **SCOTT** | **ANALYST** | **8566** | **1992-12-09** | **3000** | **NULL** | **20** |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1500** | **0** | **30** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **950** | **NULL** | **30** |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3000** | **NULL** | **20** |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1100** | **NULL** | **20** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |

**QUESTION-21**

SELECT \* FROM empl

ORDER BY ename DESC;

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **empno** | **ename** | **job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **800** | **NULL** | **20** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |
| **8521** | **SETH** | **SALESMAN** | **8698** | **1991-02-22** | **1250** | **500** | **30** |
| **8888** | **SCOTT** | **ANALYST** | **8566** | **1992-12-09** | **3000** | **NULL** | **20** |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1250** | **1400** | **30** |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1300** | **NULL** | **10** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1500** | **0** | **30** |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **950** | **NULL** | **30** |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3000** | **NULL** | **20** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |
| **8499** | **ANYA** | **SALESMAN** | **8698** | **1991-02-20** | **1600** | **300** | **30** |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1100** | **NULL** | **20** |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |

**QUESTION-22**

SELECT ename FROM empl

WHERE ename LIKE "M%";

**OUTPUT:**

|  |
| --- |
| **ename** |
| **MAHADEVAN** |
| **MOMIN** |
| **MITA** |

**QUESTION-23**

SELECT ename FROM empl

WHERE ename LIKE "%P";

**OUTPUT:**

|  |
| --- |
| **ename** |
| **KULDEEP** |
| **ANOOP** |

**QUESTION-24**

SELECT ename FROM empl

WHERE ename like "%o%";

**OUTPUT:**

|  |
| --- |
| **ename** |
| **MOMIN** |
| **SCOTT** |
| **ANOOP** |

**QUESTION-25**

SELECT ename FROM empl

WHERE ename LIKE "%T\_";

**OUTPUT:**

|  |
| --- |
| **ename** |
| **SMITH** |
| **SETH** |
| **SCOTT** |
| **MITA** |

**QUESTION-26**

SELECT ename FROM empl

WHERE ename LIKE "A%" AND ename LIKE "%A";

**OUTPUT:**

|  |
| --- |
| **ename** |
| **ANYA** |

**QUESTION-27**

SELECT ename ,epmno , job FROM empl

WHERE mgr = 8566 OR mgr = 8882;

**OUTPUT:**

|  |  |  |
| --- | --- | --- |
| **ename** | **epmno** | **Job** |
| **SCOTT** | **8888** | **ANALYST** |
| **FAKIR** | **8902** | **ANALYST** |
| **MITA** | **8934** | **CLERK** |

**QUESTION-28**

SELECT \* FROM empl

WHERE job = "MANAGER";

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Empno** | **ename** | **job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |

**QUESTION-29**

DELETE FROM empl

WHERE ename = “SETH” OR ename = “ANYA” OR ename = “SCOTT”

SELECT \* FROM empl;

**OUTPUT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Empno** | **ename** | **job** | **mgr** | **Hiredate** | **salary** | **comm** | **Deptno** |
| **8369** | **SMITH** | **CLERK** | **8902** | **1990-12-18** | **800** | **NULL** | **20** |
| **8566** | **MAHADEVAN** | **MANAGER** | **8839** | **1991-04-02** | **2985** | **NULL** | **20** |
| **8654** | **MOMIN** | **SALESMAN** | **8698** | **1991-09-28** | **1250** | **1400** | **30** |
| **8698** | **BINA** | **MANAGER** | **8839** | **1991-05-01** | **2850** | **NULL** | **30** |
| **8882** | **SHIAVNSH** | **MANAGER** | **8839** | **1991-06-09** | **2450** | **NULL** | **10** |
| **8839** | **AMIR** | **PRESIDENT** | **NULL** | **1991-11-18** | **5000** | **NULL** | **10** |
| **8844** | **KULDEEP** | **SALESMAN** | **8698** | **1991-09-08** | **1500** | **0** | **30** |
| **8886** | **ANOOP** | **CLERK** | **8888** | **1993-01-12** | **1100** | **NULL** | **20** |
| **8900** | **JATIN** | **CLERK** | **8698** | **1991-12-03** | **950** | **NULL** | **30** |
| **8902** | **FAKIR** | **ANALYST** | **8566** | **1991-12-03** | **3000** | **NULL** | **20** |
| **8934** | **MITA** | **CLERK** | **8882** | **1992-01-23** | **1300** | **NULL** | **10** |

**QUESTION-30**

BEOFRE:

Cardinality = 8

Degree = 14

After:

Cardinality = 9

[due to adding of a column(qualification)]

Degree = 11

[due to deletion of 3 tuples(SETH , ANYA , SCOTT)]