DATABASE MANAGEMENT SYSTEM

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EXP: 2

DATA MANIPULATION

1.
   a) 1
   b) 1
   c) 1
   d) 1
   e) 1
   f) 1

2. CREATE table EMP(EmpNo number(4),Empname varchar(25),Job varchar(25),Basic number(8) NULL,DA number(8) NULL,HRA number(9) NULL,PF number(9) NULL, GrossPay number(9) NULL, NetPay number(9) NULL);

Object Type **TABLE** Object **EMP**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	EMPNO	NUMBER	-	4	0	-	✓	-	-
	EMPNAME	VARCHAR2	25	-	-	-	✓	-	-
	JOB	VARCHAR2	25	-	-	-	✓	-	-
	BASIC	NUMBER	-	8	0	-	✓	-	-
	DA	NUMBER	-	8	0	-	✓	-	-
	HRA	NUMBER	-	9	0	-	✓	-	-
	PF	NUMBER	-	9	0	-	✓	-	-
	GROSSPAY	NUMBER	-	9	0	-	✓	-	-
	NETPAY	NUMBER	-	9	0	-	✓	-	-
									1 - 9

   a) Begin
   INSERT INTO EMP (EmpNo, Empname, Job, Basic, DA, HRA, PF) VALUES (1001, 'John Doe', 'Manager', 50000, 50000 * 0.3, 50000 * 0.4, 5000);
   INSERT INTO EMP (EmpNo, Empname, Job, Basic, DA, HRA, PF) VALUES (1002, 'Jane Smith', 'Analyst', 40000, 40000 * 0.3, 40000 * 0.4, 4000);
   INSERT INTO EMP (EmpNo, Empname, Job, Basic, DA, HRA, PF) VALUES (1003, 'Mark Taylor', 'Developer', 45000, 45000 * 0.3, 45000 * 0.4, 4500);
   INSERT INTO EMP (EmpNo, Empname, Job, Basic, DA, HRA, PF) VALUES (1004, 'Emily Davis', 'Tester', 35000, 35000 * 0.3, 35000 * 0.4, 3500);

INSERT INTO EMP (EmpNo, Empname, Job, Basic, DA, HRA, PF) VALUES
(1005, 'Luke Johnson', 'Support', 30000, 30000 * 0.3, 30000 * 0.4, 3000);
end
;
/

EMPNO	EMPNAME	JOB	BASIC	DA	HRA	PF	GROSSPAY	NETPAY
1001	John Doe	Manager	50000	15000	20000	5000	-	-
1002	Jane Smith	Analyst	40000	12000	16000	4000	-	-
1003	Mark Taylor	Developer	45000	13500	18000	4500	-	-
1004	Emily Davis	Tester	35000	10500	14000	3500	-	-
1005	Luke Johnson	Support	30000	9000	12000	3000	-	-

UPDATE EMP
SET GrossPay = Basic + DA + HRA,
NetPay = (Basic + DA + HRA) - PF;

EMPNO	EMPNAME	JOB	BASIC	DA	HRA	PF	GROSSPAY	NETPAY
1001	John Doe	Manager	50000	15000	20000	5000	85000	80000
1002	Jane Smith	Analyst	40000	12000	16000	4000	68000	64000
1003	Mark Taylor	Developer	45000	13500	18000	4500	76500	72000
1004	Emily Davis	Tester	35000	10500	14000	3500	59500	56000
1005	Luke Johnson	Support	30000	9000	12000	3000	51000	48000

b) SELECT EmpName,Job,Basic from EMP where Basic in(SELECT min(Basic)
from EMP group by Job);

EMPNAME	JOB	BASIC
John Doe	Manager	50000
Jane Smith	Analyst	40000
Mark Taylor	Developer	45000
Emily Davis	Tester	35000
Luke Johnson	Support	30000

c) SELECT EmpNo,EmpName,NetPay from EMP where NetPay>10000;

EMPNO	EMPNAME	NETPAY
1001	John Doe	80000
1002	Jane Smith	64000
1003	Mark Taylor	72000
1004	Emily Davis	56000
1005	Luke Johnson	48000

3.

a) CREATE table DEPT(ID number(7), NAME varchar(25));

Object Type **TABLE** Object **DEPT**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT	ID	NUMBER	-	7	0	-	✓	-	-
	NAME	VARCHAR2	25	-	-	-	✓	-	-
									1 - 2

b) CREATE table EMP(ID number(7),Last_Name varchar(25),First_Name varchar(25),Dept_ID number (7));

Object Type **TABLE** Object **EMPS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPS	ID	NUMBER	-	7	0	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	DEPT_ID	NUMBER	-	7	0	-	✓	-	-
									1 - 4

c) ALTER table EMP MODIFY(Last_Name varchar(50));

Object Type **TABLE** Object **EMPS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPS	ID	NUMBER	-	7	0	-	✓	-	-
	LAST_NAME	VARCHAR2	50	-	-	-	✓	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	DEPT_ID	NUMBER	-	7	0	-	✓	-	-
									1 - 4

d) CREATE table EMPLOYEES2(Employee_id number(9),First_Name varchar(25),Last_Name varchar(25),Salary number(9),Dept_id number(4));

Object Type **TABLE** Object **EMPLOYEES2**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEES2	EMPLOYEE_ID	NUMBER	-	9	0	-	✓	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	SALARY	NUMBER	-	9	0	-	✓	-	-
	DEPT_ID	NUMBER	-	4	0	-	✓	-	-
									1 - 5

e) drop table EMP;

Table dropped.

0.03 seconds

f) ALTER table EMPLOYEES2 RENAME to EMP;

Table altered.

0.03 seconds

Object Type **TABLE** Object **EMPS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPS	EMPLOYEE_ID	NUMBER	-	9	0	-	✓	-	-
	FIRST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	SALARY	NUMBER	-	9	0	-	✓	-	-
	DEPT_ID	NUMBER	-	4	0	-	✓	-	-
									1 - 5

g) To comment on table
   SELECT *FROM user_tab_comments;
   comment on table DEPT is 'All Departments';
   comment on table EMPS is 'ALL Employees';

TABLE_NAME	TABLE_TYPE	COMMENTS
MY_EMPLOYEE	TABLE	-
HTMLDB_PLAN_TABLE	TABLE	-
EMPS	TABLE	ALL Employees
EMP	TABLE	-
DEPT	TABLE	ALL Departments
DEMO_USERS	TABLE	-
DEMO_STATES	TABLE	-
DEMO_PRODUCT_INFO	TABLE	-
DEMO_ORDER_ITEMS	TABLE	-
DEMO_ORDERS	TABLE	-
More than 10 rows available. Increase rows selector to view more rows.		

To comment on Specific Column
COMMENT on COLUMN DEPT.id is 'Should only be numbers';
DESC DEPT;

Object Type **TABLE** Object **DEPT**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT	ID	NUMBER	-	7	0	-	✓	-	Should only be numbers
	NAME	VARCHAR2	25	-	-	-	✓	-	-
									1 - 2

h) ALTER TABLE EMP DROP COLUMN First_Name;

Object Type **TABLE** Object **EMPS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPS	EMPLOYEE_ID	NUMBER	-	9	0	-	✓	-	-
	LAST_NAME	VARCHAR2	25	-	-	-	✓	-	-
	SALARY	NUMBER	-	9	0	-	✓	-	-
	DEPT_ID	NUMBER	-	4	0	-	✓	-	-
									1 - 4