



School of Computer Science and Engineering

BTech CSE Database Systems Lab

Aim: To study Data Definition and Data Manipulation commands.

Consider the following schema:

Aim: To know how the constraints are used to make table contain valid data.

Table Name: Employee

Attribute	Data Type	Constraint
First Name	Varchar (15)	Not Null
Mid Name	Char(2)	
Last Name	Varchar (15)	Not Null
SSN Number	Char (9)	Primary Key
Birthday	Date	
Address	Varchar (50)	
Sex	Char(1)	Sex In (M,F,m,f)
Salary	Number (7)	Default 800
Supervisor SSN	Char (9)	Foreign Key Employee (SSN) on delete set null
Department number	Number(5)	Foreign key to department number of department table on delete cascade

Table Name : Department

Attribute	Data type	Constraint
Department Name	Varchar(15)	Not Null
Department number	Number(5)	Primary key
Manager SSN	Char (9)	Foreign key-Employee (SSN) on delete set null
Manage start date	Date	

Table Name : Dept_locations

Attribute	Data type	Constraint
Department Number	Number(5)	Department (dep no) on delete cascade
Department Location	Varchar (15)	

Table Name: Project

Attribute	Data type	Constraint
Project Name	Varchar2(15)	Not Null
Project number	Number(5)	Primary key
Project Location	Varchar2(50)	

Department Number	Number(5)	Foreign Key –Department (dep no) on delete set null
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Table Name: Works_On

The combination of Employee SSN and Project Number must be a Primary Key

Attribute	Data type	Constraint
Employee SSN	Char (9)	Foreign Key Employee (SSN) on delete cascade
Project number	INT(5)	Foreign Key project (Pnumber) on delete cascade
Hours	Decimal (3,1)	Not null

Name: Dependent

The combination of Employee SSN and Dependent Name must be a Primary Key.

Attribute	Datatype	Constraint
Employee	Char (9)	Foreign Key- Employee (SSN) on delete cascade
Dependent Name	Varchar(15)	
Sex	Char(1)	Check Sex in (M,F,m,f)
Birthday	Date	
Relationship	Varchar(8)	

Data For Employee Table

FName	Mini t	LName	SSN	BDate	Address	Sex	Salary	SuperSSN	DepNo
Doug	E	Gilbert	554433221	09-JUN-60	11 S 59 E, Salt Lake City, UT	M	80000	NULL	3
Joyce		PAN	543216789	07-FEB-78	35 S 18 E, Salt Lake City, UT	F	70000	NULL	2
Frankin	T	Wong	333445555	08-DEC-45	638 Voss, Houston, TX	M	40000	554433221	5
Jennifer	S	Wallace	987654321	20-JUN-31	291 Berry, Bellaire, TX	F	43000	554433221	4
Johny	B	Smith	123456789	09-JAN-55	731 Fondren, Houston, TX	M	30000	333445555	5
Ramesh	K	Narayan	666884444	15-SEP-52	975 Fire Oak, Humble, TX	M	38000	333445555	5
Joyce	A	English	453453453	31-JUL-62	5631 Rice, Houston, TX	F	25000	333445555	5
James	E	Borg	888665555	10-NOV-27	450 Stone, Houston, TX	M	55000	543216789	1
Alicia	J	Zelaya	999887777	19-JUL-58	3321 Castle, Spring, TX	F	25000	987654321	4
Ahmad	V	Jabbar	987987987	29-MAR-59	980 Dallas, Houston, TX	M	25000	987654321	4

Data For Department table

DName	DepNo	MgrSSN	MgrStartDate
Manufacture	1	888665555	19-JUN-71
Administration	2	543216789	04-JAN-99
Headquarter	3	554433221	22-SEP-55
Finance	4	987654321	01-JAN-85
Research	5	333445555	22-MAY-78

Data For Project

PName	PNumber	Plocation	DepNo
ProjectA	3388	Houston	1
ProjectB	1945	Salt Lake City	3
ProjectC	6688	Houston	5
ProjectD	2423	Bellaire	4
ProjectE	7745	Sugarland	5
ProjectF	1566	Salt Lake City	3
ProjectG	1234	New York	2
ProjectH	3467	Stafford	4
ProjectI	4345	Chicago	1
ProjectJ	2212	San Francisco	2

Data for table - Dept_Locations

Dep No	D Location
1	Houston
1	Chicago
2	New York
2	San Francisco
3	Salt Lake City
4	Stafford
4	Bellaire
5	Sugarland
5	Houston

Data for Table - Works_On

ESSN	Pno	Hours
123456789	3388	32.5
123456789	1945	7.5
666884444	3388	40.0
453453453	7745	20.0
453453453	2212	20.0
333445555	7745	10.0
333445555	6688	10.0
333445555	4345	35.0
333445555	2212	28.5
999887777	2212	11.5
543216789	2212	17.0
554433221	1945	21.5

Data for Table - Dependent

ESSN	Dependent_name	Sex	Bdate	Relationship
333445555	Alice	F	05-Apr-76	Daughter
333445555	Theodore	M	25-Oct-73	Son
333445555	Joy	F	03-May-48	Spouse
987654321	Abner	M	29-Feb-32	Spouse
123456789	Alice	F	31-Dec-78	Daughter
123456789	Elizabeth	F	05-may-57	Spouse