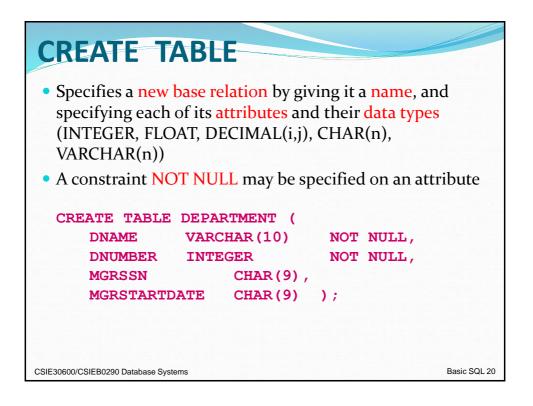
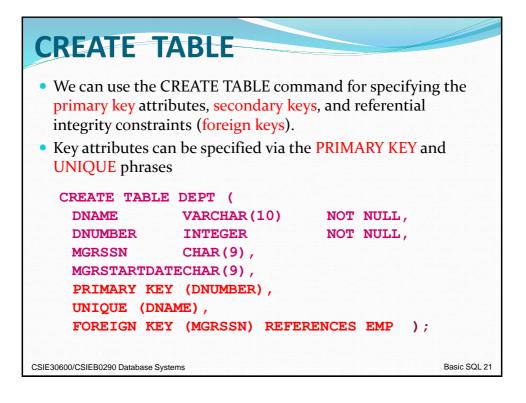


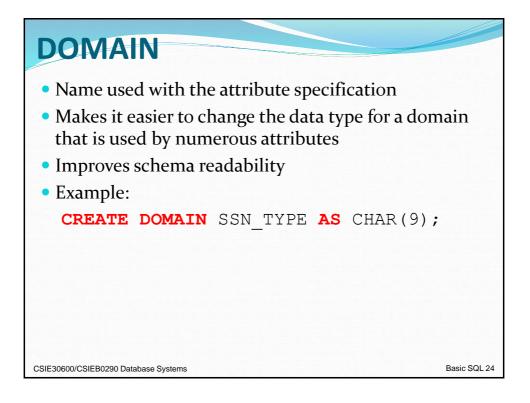
Туре	Stores	Literal	
DATE	year, month, day	DATE 'YYYY-MM-DD'	
TIME	hour, minute, and second	TIME 'HH:MM:SS'	
TIMESTAMP	year, month, day, hour, minute, and second	TIMESTAMP 'YYYY-MM-DD HH:M	M:SS
Туре	Example Literal	Description	
	Example Literal	Description 5 years	
		-	
	INTERVAL '5' YEAR	5 years	
Year–Month	INTERVAL '5' YEAR INTERVAL '2' MONTH	5 years 2 months 3 years and 1 month	s, and
	INTERVAL '5' YEAR INTERVAL '2' MONTH INTERVAL '3-1' YEAR TO MONTH	5 years 2 months 3 years and 1 month COND 5 days, 10 hours, 30 minutes	s, and

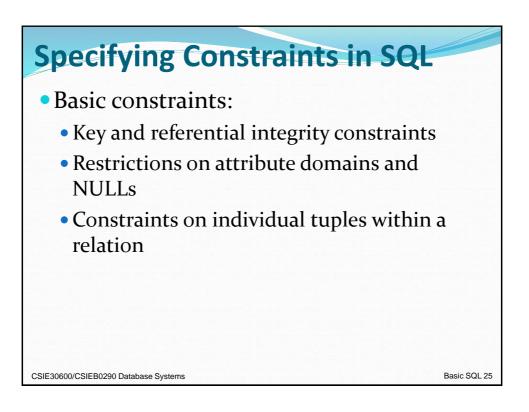


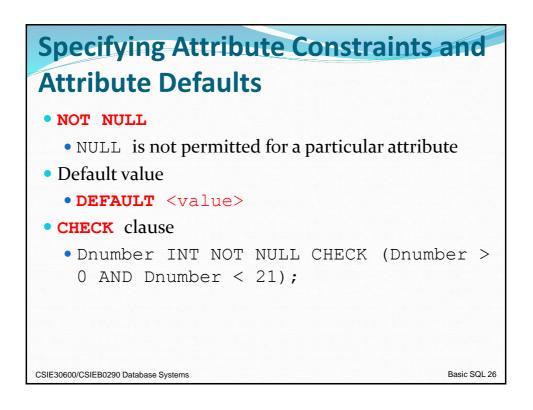


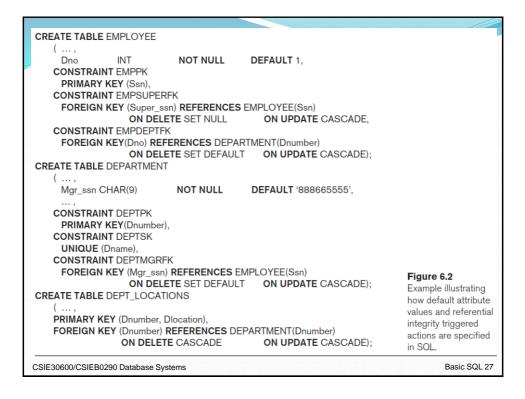
A more co	omplete ex	ample	
CREATE TABLE EMPLOYEE			Figure 6.1
(Fname	VARCHAR(15)	NOT NULL.	SOL CREATE
Minit	CHAR.		TABLE data
Lname	VARCHAR(15)	NOT NULL.	definition statements
Ssn	CHAR(9)	NOT NULL.	for defining the
Bdate	DATE.		COMPANY schema
Address	VARCHAR(30),		from Figure 5.7.
Sex	CHAR,		0
Salary	DECIMAL(10,2),		
Super_ssn	CHAR(9),		
Dno	INT	NOT NULL,	
PRIMARY KEY (Ssn),			
CREATE TABLE DEPARTMENT			
(Dname	VARCHAR(15)	NOT NULL,	
Dnumber	INT	NOT NULL,	
Mgr_ssn	CHAR(9)	NOT NULL,	
Mgr_start_date	DATE,		
PRIMARY KEY (Dnumb	per),		
UNIQUE (Dname),			
FOREIGN KEY (Mgr_ss	sn) REFERENCES EMPLOYEE(Ssn)));	
CREATE TABLE DEPT_LOCATI	ONS		
(Dnumber	INT	NOT NULL,	
Dlocation	VARCHAR(15)	NOT NULL,	
PRIMARY KEY (Dnumb			
FOREIGN KEY (Dnumb	per) REFERENCES DEPARTMENT(Onumber));	

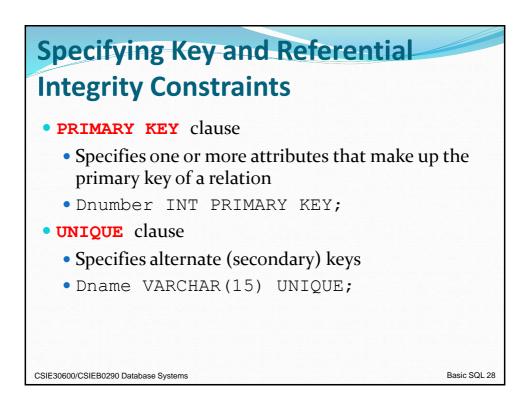
CREATE TABLE PROJECT		
(Pname	VARCHAR(15)	NOT NULL,
Pnumber	INT	NOT NULL.
Plocation	VARCHAR(15),	NOT NOLL,
Dnum	INT	
		NOT NULL,
PRIMARY KEY (Pnumb	er),	
UNIQUE (Pname),		
. ,	REFERENCES DEPARTMENT(Dnur	nber));
CREATE TABLE WORKS_ON		
(Essn	CHAR(9)	NOT NULL,
Pno	INT	NOT NULL,
Hours	DECIMAL(3,1)	NOT NULL,
PRIMARY KEY (Essn, F	Pno),	
FOREIGN KEY (Essn) F	REFERENCES EMPLOYEE(Ssn),	
FOREIGN KEY (Pno) R	EFERENCES PROJECT(Pnumber));	
CREATE TABLE DEPENDENT		
(Essn	CHAR(9)	NOT NULL,
Dependent_name	VARCHAR(15)	NOT NULL,
Sex	CHAR.	,
Bdate	DATE,	
Relationship	VARCHAR(8),	
PRIMARY KEY (Essn, D		
	REFERENCES EMPLOYEE(Ssn));	
		D'- 00
SIE30600/CSIEB0290 Database Systems		Basic SQL

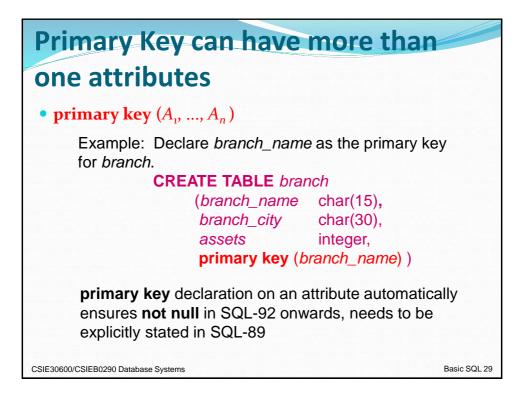


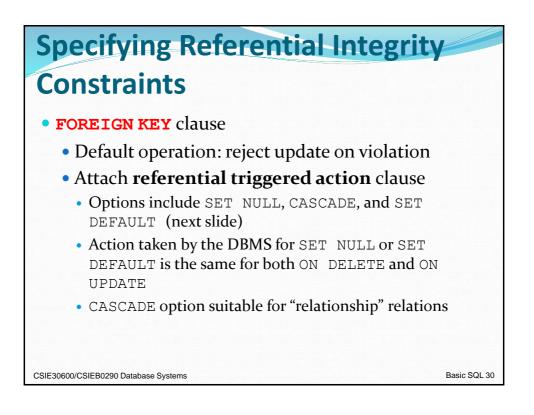


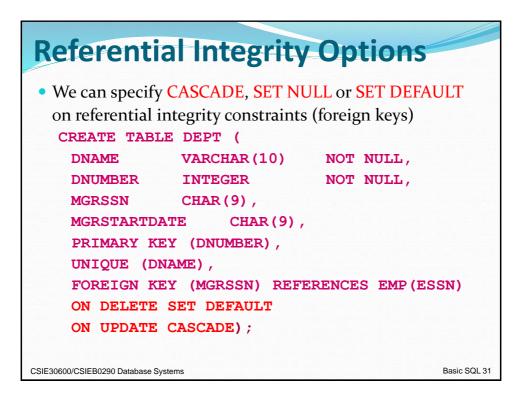


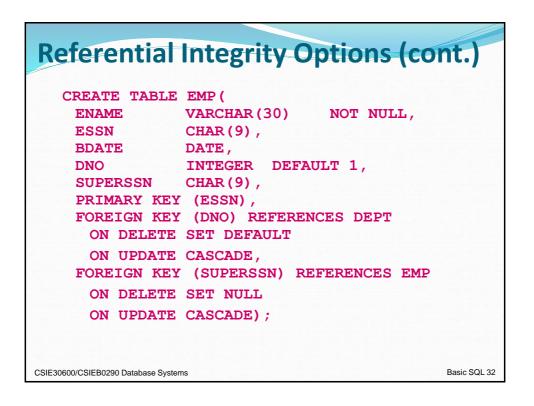


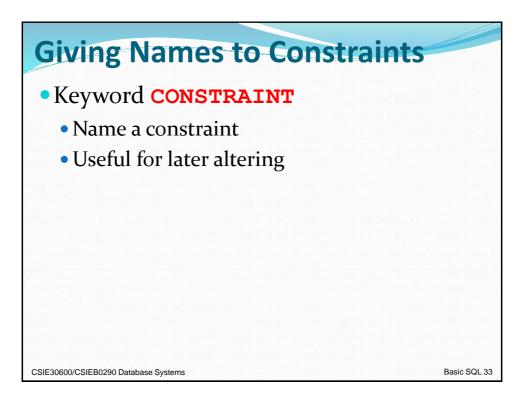


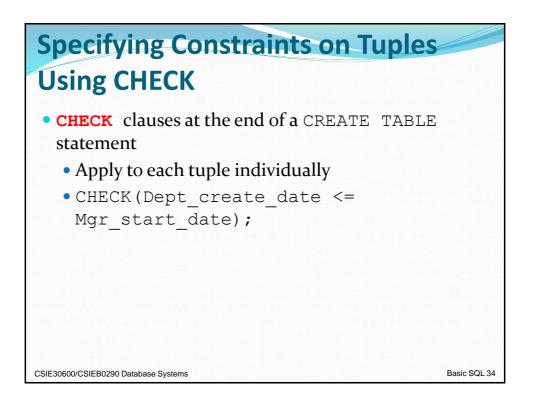


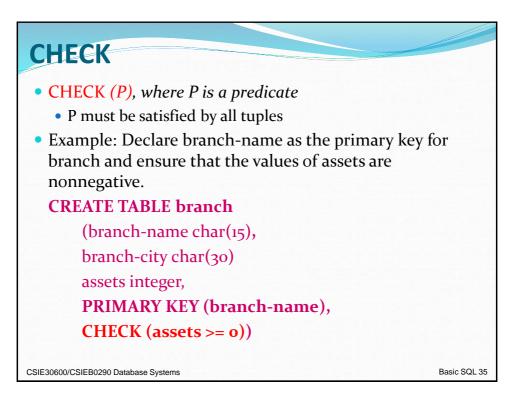


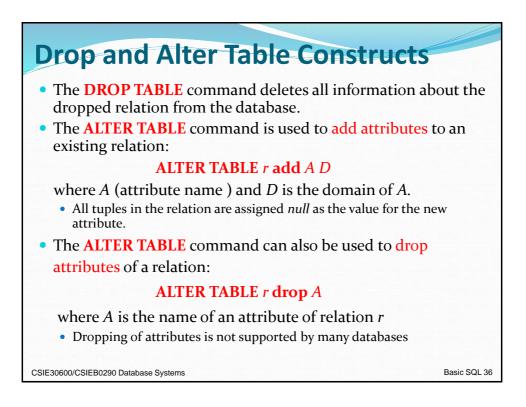


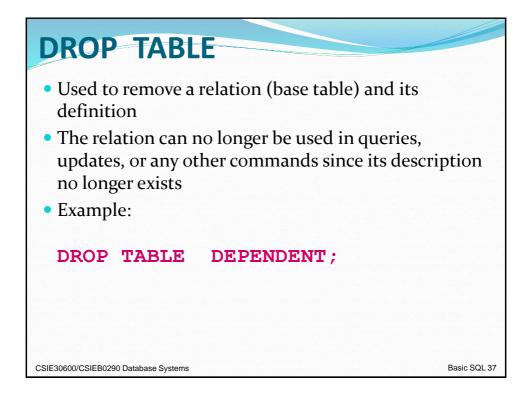


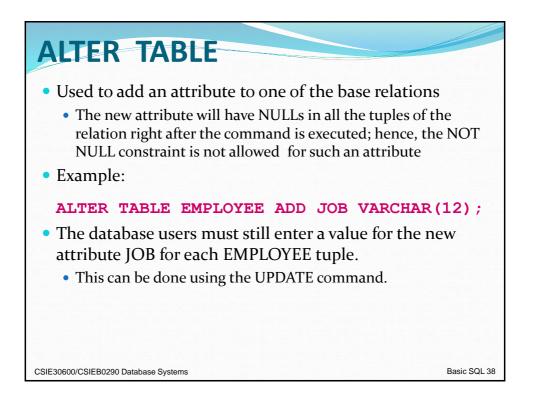


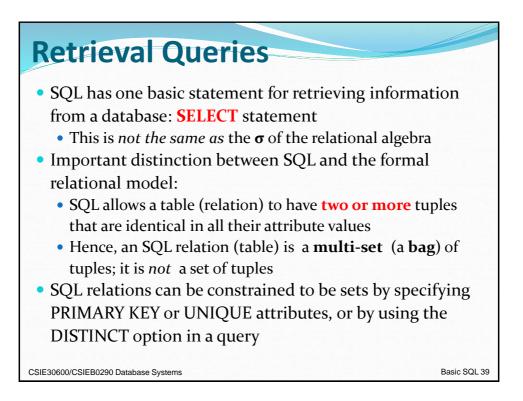


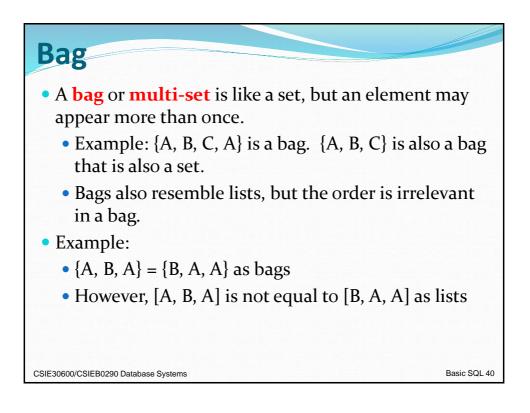


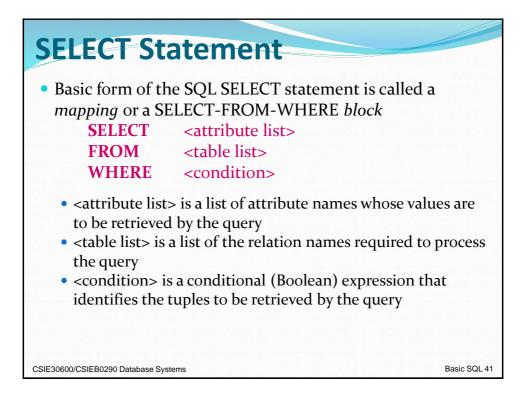


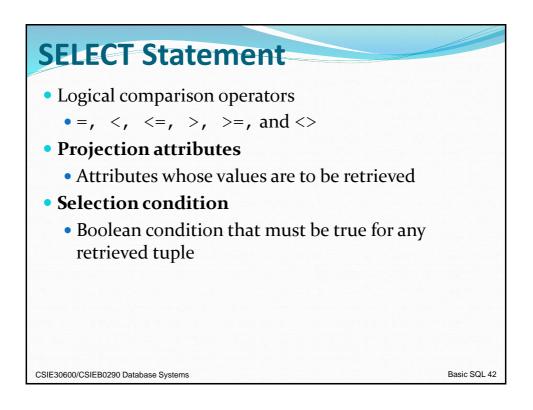


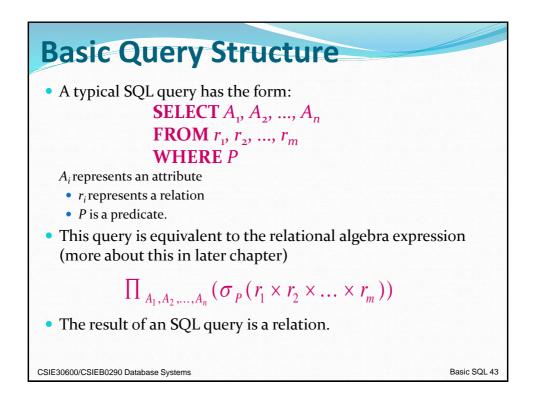






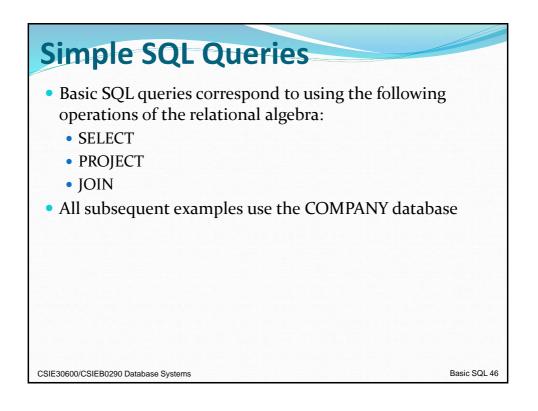






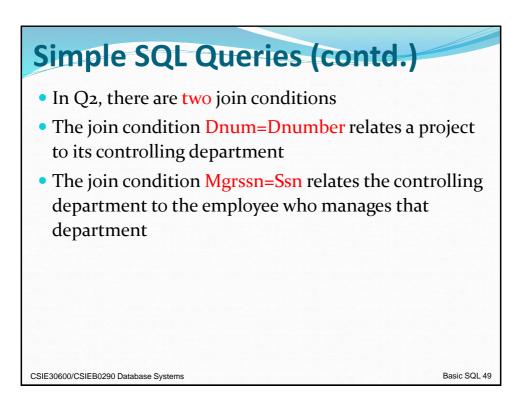
FNAME	MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSSN	DNO
		DEPA	ARTMEN	т					
DNAME <u>DNUMBER</u> MGRSSN MGRSTARTDATE									
DNUMBER DLOCATION PROJECT PNAME PNUMBER PLOCATION									
WORKS_ON									
ESSN PNO HOURS									
		DEPENDE	NT						
	Г	ESSN DE		T NAME	SEX B	DATE	RELATIONSHI		

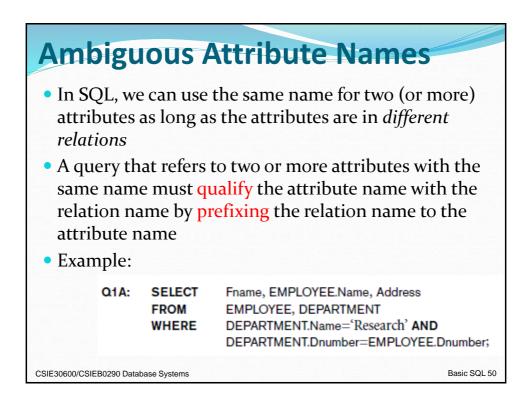
		-								_
EMPLOYEE	FNAM	E MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSS	N DN
	John	В	Smith	123456789	1965-01-09	731 Fondren, Houston, T		30000	333445555	
	Frankli		Wong	333445555	1955-12-08	638 Voss, Houston, TX	M F	40000	888665555	
	Jennife	J	Zelaya Wallace	999687777 987654321	1968-07-19 1941-06-20	3321 Castle, Spring, TX 291 Berry, Bellaire, TX	F	25000 43000	987654321	
	Rames		Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TA		38000	333445555	
	Joyce	. <u>n</u>	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	25000	333445555	
	Ahmad	V	Jabbar	987987987	1969-03-29	960 Dallas, Houston, TX	M	25000	987654321	4
	James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	м	55000	nul	1
						DEPT_LOCATI	ONS .	DNUMBER	DLOCATIC	<u>N</u>
								1	Houston	
0501071	-	-		0444050	1000001	1000071070175	- F	4	Stafford	_
DEPARTM	ENT	DNAME Research		DNUMBER 5	MGRSSN 333445555	MGRSTARTDATE 1988-05-22	- H	5	Bellaire Sugarland	_
	ŀ	Administra	tion	4	987654321	1995-01-01	- H	5	Houston	-
	F	Headquart		1	889665555	1981-06-19				
	453 333 333 333 333 999 999 999 987 987 987 987	45555 87777 87777 67987 67987 54321 54321	2 2 1 3 1 10 1 20 1 30 3 30 3 20 1	000 00 00 00 00 00 00 00 00 00 50 50 00	PROJECT	PNAME ProductX ProductY ProductZ Computerization Recognitization Newbenefits	PNUMBE 1 2 3 10 20 30	Bolk	arland ston ston ston	
DEPENDEN		ESSN	DEPEN	ENT_NAME	SEX BDA	TE RELATIONS	IP			
-	33	3445555	A	ice	F 1986-0	1-05 DAUGHTER				
		3445555	т	eodore	M 1983-10					
		3445555	Jo		F 1958-05					
		7654321 3456789		ner	M 1942-03 M 1988-07					
		3456789		ice	F 1988-12					

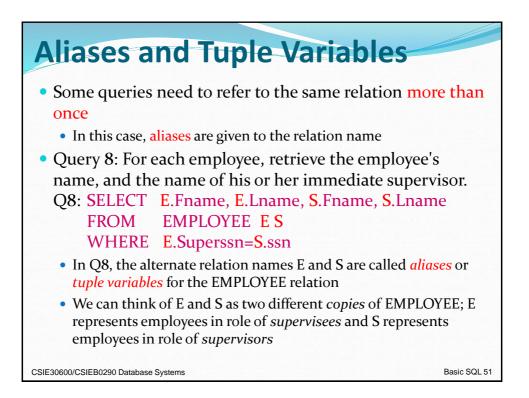


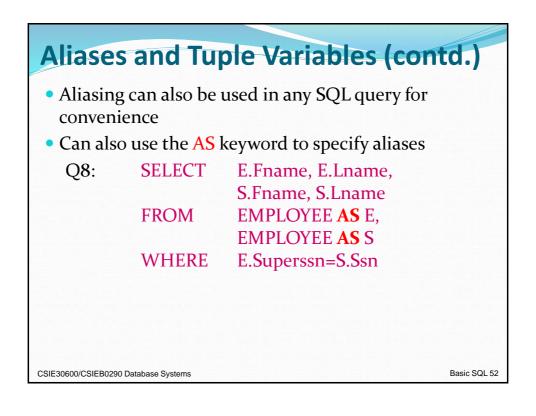
•	Exa Figure Results	mple 6.3 5 of SQL	e of	a sin	LQU nple que oplied to the CO 02. (d) 08. (e) (e ry on MPANY dat	one	relat	ion	td.)	
	(;	a) <u>B</u>	date_	<u> </u>	Address		(b)	Fname	Lname_	Address	
		1965	-01-09	731Fond	ren, Houston, TX			John	Smith	731 Fondren, Hou	uston, TX
								Franklin	Wong	638 Voss, Housto	on, TX
								Ramesh	Narayan	975 Fire Oak, Hu	mble, TX
								Joyce	English	5631 Rice, Houst	ton, TX
		Query is 'Johr			he birth date	and addr	ess of	the emp	loyee(s)	whose name	
		Q0:	SELI FRO WHE	M	Bdate, Addre EMPLOYEE Fname='Johr		nit='B	AND Ln	ame='Sr	nith';	
		Query 1. Retrieve the name and address of all employees who work for the 'Research' department.									
		Q1:	SEL FRO WHE	M	Fname, Lnam EMPLOYEE, Dname='Res	DEPART	IENT	mber=Dr	10;		
CSIE3	0600/C	SIEB029	0 Datab	ase Syste	ems						Basic SQL 47

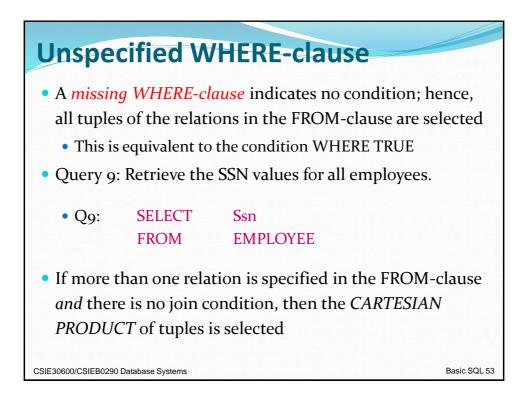
sult				o the COMPANY datab Q8. (e) Q9. (f) Q10. (g		vn	
(c)	Pnumber	Dnum	Lname	Address	Bdate		
	10	4	Wallace	291Berry, Bellaire, TX	1941-06-20		
	30	4	Wallace	291Berry, Bellaire, TX	1941-06-20		
coi ado	ntrolling dej dress, and bir	partment rth date.	number,	ed in 'Stafford', list the and the department i	nanager's last		
Q2: SELECT FROM WHERE			Pnumber, Dnum, Lname, Address, Bdate PROJECT, DEPARTMENT, EMPLOYEE Dnum=Dnumber AND Mgr_ssn=Ssn AND Plocation='Stafford';				

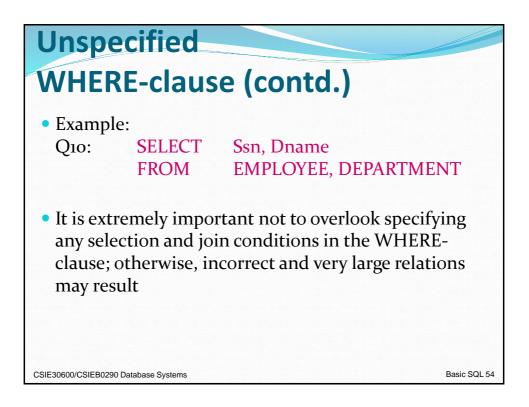


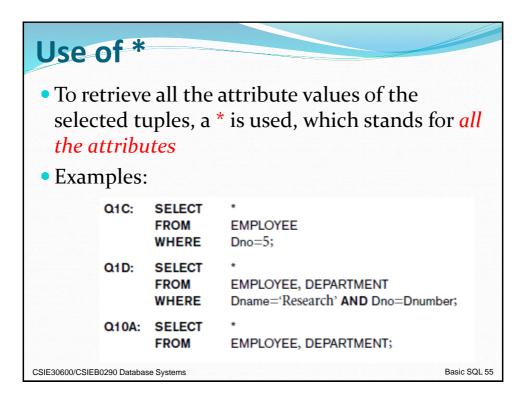


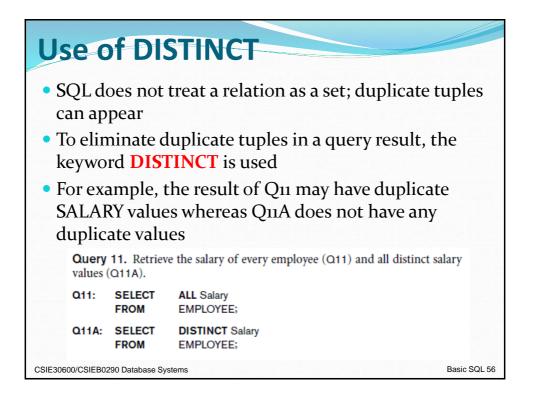




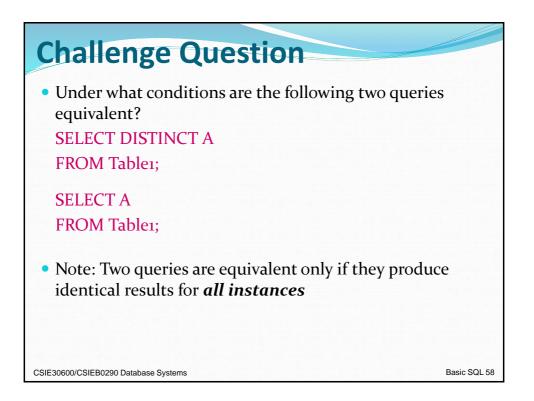


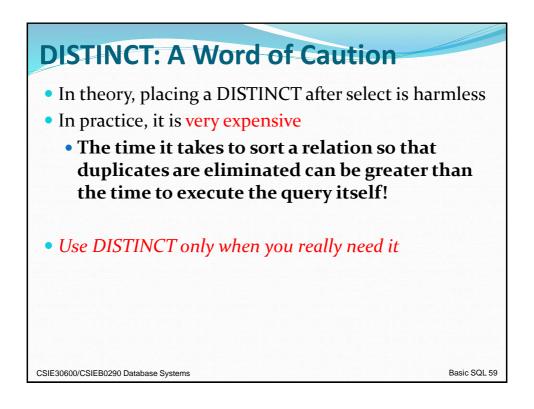


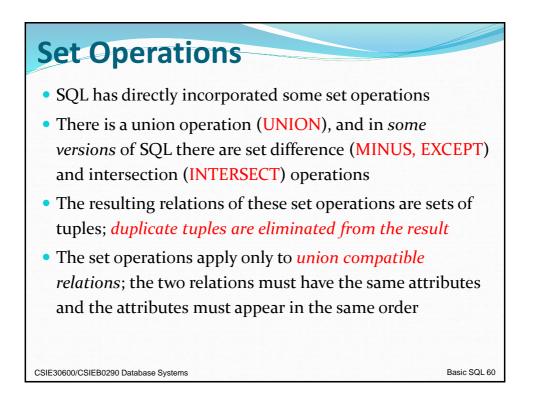




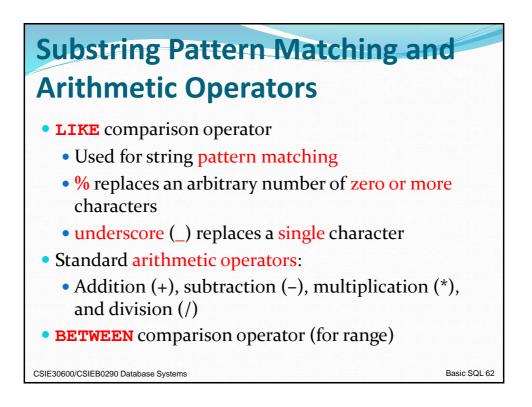
	(a)	Salary	(b)	Salary
		30000		30000
Figure 6.4		40000		40000
Results of additional		25000		25000
SQL queries when applied to the		43000		43000
COMPANY database		38000		38000
state shown in		25000		55000
Figure 5.6. (a) Q11. (b) Q11A. (c) Q16.		25000		
(d) Q18.		55000		

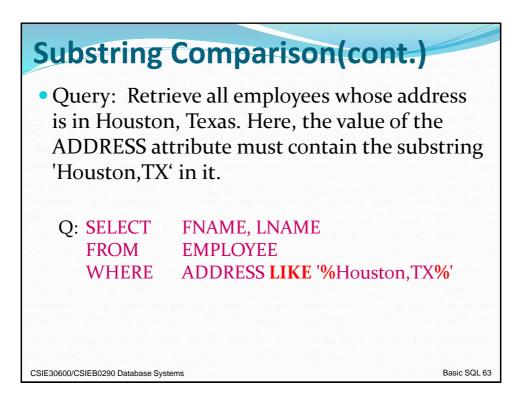


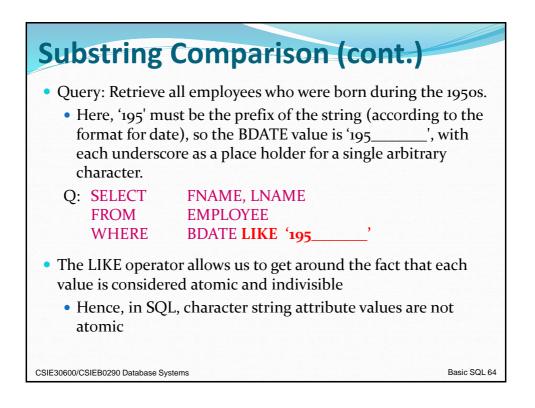


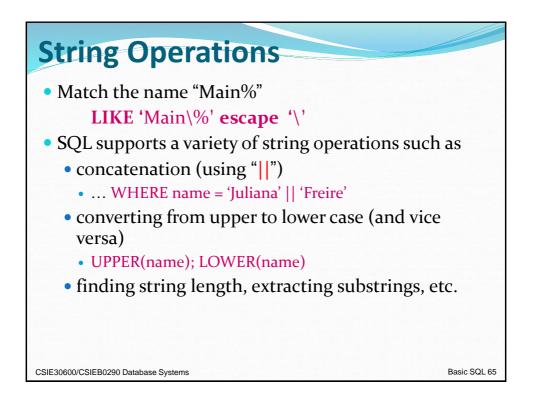


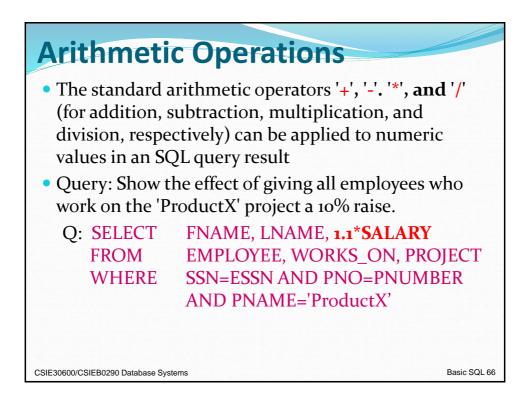
Set Oper	rations (cont.)
that involve	ake a list of all project names for projects an employee whose last name is 'Smith' as as a manager of the department that project.
	a list of all project numbers for projects that involve an st name is 'Smith', either as a worker or as a manager of the ontrols the project.
Q4A: (SELECT FROM WHERE UNION	DISTINCT Pnumber PROJECT, DEPARTMENT, EMPLOYEE Dnum=Dnumber AND Mgr_ssn=Ssn AND Lname='Smith')
(SELECT FROM WHERE	DISTINCT Pnumber PROJECT, WORKS_ON, EMPLOYEE Pnumber=Pno AND Essn=Ssn AND Lname='Smith');
CSIE30600/CSIEB0290 Databas	e Systems Basic SQL 61

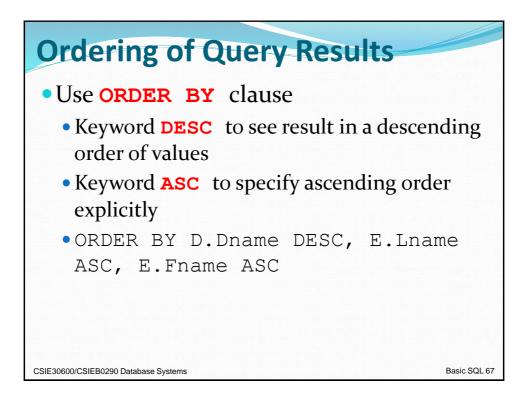


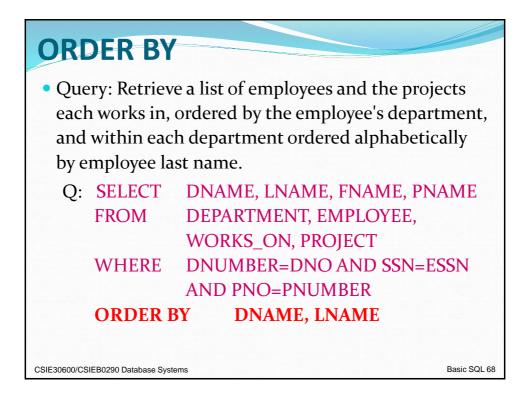


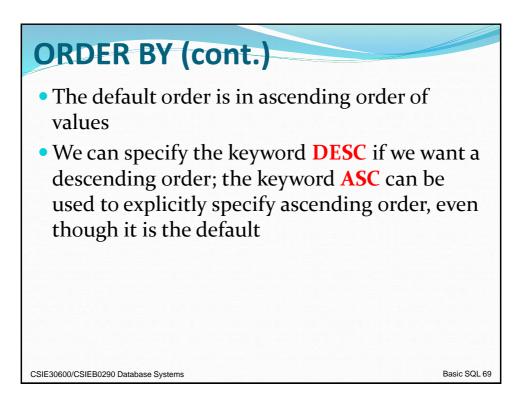


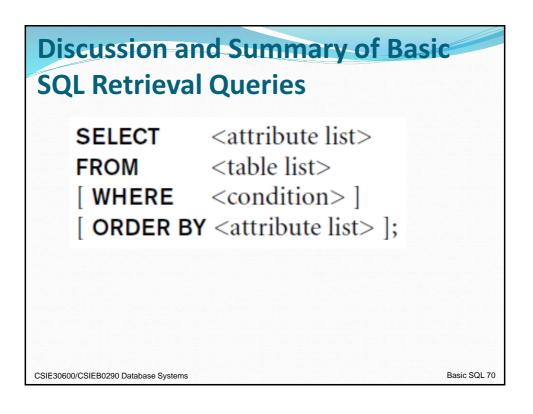


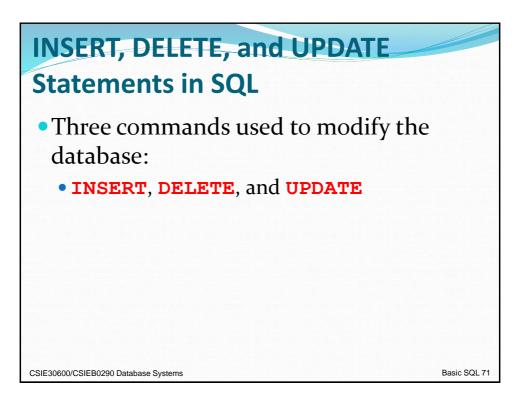












The	INSERT	Command
-	cify the <mark>re</mark> les for the	e <mark>lation name</mark> and a <mark>list of</mark> tuple
U1:	INSERT INTO VALUES	EMPLOYEE ('Richard', 'K', 'Marini', '653298653', '1962-12-30', '98 Oak Forest, Katy, TX', 'M', 37000, '653298653', 4);
U3B:	INSERT INTO SELECT FROM WHERE	WORKS_ON_INFO (Emp_name, Proj_name, Hours_per_week) E.Lname, P.Pname, W.Hours PROJECT P, WORKS_ON W, EMPLOYEE E P.Pnumber=W.Pno AND W.Essn=E.Ssn;
CSIE30600/CSIE	B0290 Database Systems	Basic SQL 72

