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**CS530**

**Schema and Implementation**

1 & 2 Revised ER Diagram/Relational Schema

Untitled Diagram.png

3. Create Tables:

DROP TABLE IF EXISTS certify\_employee;

DROP TABLE IF EXISTS empschedule\_employee;

DROP TABLE IF EXISTS department\_employee;

DROP TABLE IF EXISTS location\_inventory;

DROP TABLE IF EXISTS invschedule\_inventory;

DROP TABLE IF EXISTS works;

DROP TABLE IF EXISTS employee;

DROP TABLE IF EXISTS empschedule;

DROP TABLE IF EXISTS certify;

DROP TABLE IF EXISTS department;

DROP TABLE IF EXISTS inventory;

DROP TABLE IF EXISTS location;

DROP TABLE IF EXISTS invschedule;

CREATE TABLE employee(

employee\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

first\_name VARCHAR(25) NOT NULL,

middle\_initial VARCHAR(1),

last\_name VARCHAR(25) NOT NULL,

employee\_street VARCHAR(30) NOT NULL,

employee\_city VARCHAR(30) NOT NULL,

employee\_state VARCHAR(2) NOT NULL,

employee\_zip INTEGER(5) NOT NULL,

primary key (employee\_id)

);

CREATE TABLE empschedule(

empschedule\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

hours\_a\_week INTEGER(3) NOT NULL,

work\_weekends VARCHAR(3) NOT NULL,

shift INTEGER(1),

PRIMARY KEY (empschedule\_id)

);

CREATE TABLE department(

department\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

division VARCHAR(30) NOT NULL,

role VARCHAR(30) NOT NULL,

PRIMARY KEY (department\_id)

);

CREATE TABLE certify(

certify\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

certification VARCHAR(50) NOT NULL,

PRIMARY KEY (certify\_id)

);

CREATE TABLE empschedule\_employee(

empschedule\_id INTEGER NOT NULL,

employee\_id INTEGER NOT NULL,

CONSTRAINT con\_empschedule\_employee FOREIGN KEY(empschedule\_id) REFERENCES empschedule(empschedule\_id)

ON DELETE CASCADE,

CONSTRAINT con\_employee\_empschedule FOREIGN KEY(employee\_id) REFERENCES employee(employee\_id)

ON DELETE CASCADE

);

CREATE TABLE certify\_employee(

certify\_id INTEGER NOT NULL,

employee\_id INTEGER NOT NULL,

CONSTRAINT con\_certify\_employee FOREIGN KEY(certify\_id) REFERENCES certify(certify\_id)

ON DELETE CASCADE,

CONSTRAINT con\_employee\_certify FOREIGN KEY(employee\_id) REFERENCES employee(employee\_id)

ON DELETE CASCADE

);

CREATE TABLE department\_employee(

department\_id INTEGER NOT NULL,

employee\_id INTEGER NOT NULL,

CONSTRAINT con\_department\_employee FOREIGN KEY(department\_id) REFERENCES department(department\_id)

ON DELETE CASCADE,

CONSTRAINT con\_employee\_department FOREIGN KEY(employee\_id) REFERENCES employee(employee\_id)

ON DELETE CASCADE

);

CREATE TABLE inventory(

inventory\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

date\_purchased DATE,

date\_implemented DATE NOT NULL,

model VARCHAR(25) NOT NULL,

serial\_number VARCHAR(30) NOT NULL,

company VARCHAR(30),

type VARCHAR(15) NOT NULL,

product\_description VARCHAR(140) NOT NULL,

add\_notes VARCHAR(140),

PRIMARY KEY (inventory\_id)

);

CREATE TABLE location(

location\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

building VARCHAR(30) NOT NULL,

room\_number INTEGER(3) NOT NULL,

PRIMARY KEY (location\_id)

);

CREATE TABLE invschedule(

invschedule\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

week INTEGER(1) NOT NULL,

months INTEGER(12) NOT NULL,

PRIMARY KEY(invschedule\_id)

);

CREATE TABLE location\_inventory(

location\_id INTEGER NOT NULL,

inventory\_id INTEGER NOT NULL,

CONSTRAINT con\_location\_inventory FOREIGN KEY(location\_id) REFERENCES location(location\_id)

ON DELETE CASCADE,

CONSTRAINT con\_inventory\_location FOREIGN KEY(inventory\_id) REFERENCES inventory(inventory\_id)

ON DELETE CASCADE

);

CREATE TABLE invschedule\_inventory(

invschedule\_id INTEGER NOT NULL,

inventory\_id INTEGER NOT NULL,

CONSTRAINT con\_invschedule\_inventory FOREIGN KEY(invschedule\_id) REFERENCES invschedule(invschedule\_id)

ON DELETE CASCADE,

CONSTRAINT con\_inventory\_invschedule FOREIGN KEY(inventory\_id) REFERENCES inventory(inventory\_id)

ON DELETE CASCADE

);

CREATE TABLE works(

work\_id INTEGER UNIQUE NOT NULL AUTO\_INCREMENT,

employee\_id INTEGER,

inventory\_id INTEGER NOT NULL,

date\_assigned DATE NOT NULL,

date\_complete DATE,

description VARCHAR(140) NOT NULL,

notes VARCHAR(140),

PRIMARY KEY(work\_id),

FOREIGN KEY(inventory\_id) REFERENCES inventory(inventory\_id)

ON DELETE CASCADE,

FOREIGN KEY(employee\_id) REFERENCES employee(employee\_id)

ON DELETE CASCADE

);

4. Populate Tables With 6 Rows of Data

#EMPLOYEE

INSERT INTO employee(first\_name,middle\_initial,last\_name,employee\_street,employee\_city,employee\_state,employee\_zip)

VALUES ('Michael', 'J', 'Dolan', '4552 Wilmont Ave', 'Eldersburg', 'MD', 21784);

INSERT INTO employee(first\_name,middle\_initial,last\_name,employee\_street,employee\_city,employee\_state,employee\_zip)

VALUES ('Greg', 'D', 'Brown', '6804 Hamlet Ct', 'Frederick', 'MD', 21098);

INSERT INTO employee(first\_name,middle\_initial,last\_name,employee\_street,employee\_city,employee\_state,employee\_zip)

VALUES ('Jason','', 'Brown', '22 Breadford Ave', 'Baltimore', 'MD', 21768);

INSERT INTO employee(first\_name,middle\_initial,last\_name,employee\_street,employee\_city,employee\_state,employee\_zip)

VALUES ('Sean', 'P', 'Dolan', '8360 Court Ave', 'Frostburg', 'MD', 21532);

INSERT INTO employee(first\_name,middle\_initial,last\_name,employee\_street,employee\_city,employee\_state,employee\_zip)

VALUES ('Andy','', 'Leio', '435 Oriole Street', 'LaVale', 'MD', 21502);

INSERT INTO employee(first\_name,middle\_initial,last\_name,employee\_street,employee\_city,employee\_state,employee\_zip)

VALUES ('Jackson', 'W', 'Hammock', '87 Fairview Street', 'Cumberland', 'MD', 21502);

#EMPSCHEDULE

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (30,'yes',1);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (30,'yes',2);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (30,'yes',3);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (30,'no',1);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (30,'no',2);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (30,'no',3);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (40,'yes',1);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (40,'yes',2);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (40,'yes',3);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (40,'no',1);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (40,'no',2);

INSERT INTO empschedule(hours\_a\_week,work\_weekends,shift) VALUES (40,'no',3);

#EMPSCHEDULE\_EMPLOYEE

INSERT INTO empschedule\_employee(empschedule\_id,employee\_id) VALUES (1,1);

INSERT INTO empschedule\_employee(empschedule\_id,employee\_id) VALUES (2,2);

INSERT INTO empschedule\_employee(empschedule\_id,employee\_id) VALUES (10,3);

INSERT INTO empschedule\_employee(empschedule\_id,employee\_id) VALUES (10,4);

INSERT INTO empschedule\_employee(empschedule\_id,employee\_id) VALUES (10,5);

INSERT INTO empschedule\_employee(empschedule\_id,employee\_id) VALUES (8,6);

#DEPARTMENT

INSERT INTO department(division,role) VALUES ('HelpDesk', 'Phone Tech');

INSERT INTO department(division,role) VALUES ('HelpDesk', 'Bench Tech');

INSERT INTO department(division,role) VALUES ('HelpDesk', 'Configuration Tech');

INSERT INTO department(division,role) VALUES ('Network', 'System Administrator');

INSERT INTO department(division,role) VALUES ('Network', 'System Redundancy');

INSERT INTO department(division,role) VALUES ('Network', 'Network Administrator');

INSERT INTO department(division,role) VALUES ('Network', 'Network Engineer');

#DEPARTMENT\_EMPLOYEE

INSERT INTO department\_employee(department\_id,employee\_id) VALUES (2,1);

INSERT INTO department\_employee(department\_id,employee\_id) VALUES (2,2);

INSERT INTO department\_employee(department\_id,employee\_id) VALUES (5,3);

INSERT INTO department\_employee(department\_id,employee\_id) VALUES (6,4);

INSERT INTO department\_employee(department\_id,employee\_id) VALUES (1,5);

INSERT INTO department\_employee(department\_id,employee\_id) VALUES (6,6);

#CERTIFY

INSERT INTO certify(certification) VALUES ('CompTIA A+');

INSERT INTO certify(certification) VALUES ('CompTIA Network+');

INSERT INTO certify(certification) VALUES ('CompTIA Security+');

INSERT INTO certify(certification) VALUES ('MCSE');

INSERT INTO certify(certification) VALUES ('MCITP');

INSERT INTO certify(certification) VALUES ('MCTS');

INSERT INTO certify(certification) VALUES ('CompTIA Linux+');

INSERT INTO certify(certification) VALUES ('CCNP');

INSERT INTO certify(certification) VALUES ('CCNA');

INSERT INTO certify(certification) VALUES ('CCiE');

#CERTIFY\_EMPLOYEE

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (1,1);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (1,2);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (1,3);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (2,4);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (2,5);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (2,6);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (2,1);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (5,4);

INSERT INTO certify\_employee(certify\_id,employee\_id) VALUES (6,3);

#INVENTORY

INSERT INTO inventory(date\_purchased,date\_implemented,model,serial\_number,company,type,product\_description,add\_notes)

VALUES (null,'2010-3-23','DF56D33','RRFFR44324','HP','Printer','Color with networking','');

INSERT INTO inventory(date\_purchased,date\_implemented,model,serial\_number,company,type,product\_description,add\_notes)

VALUES ('2014-6-14','2014-7-1','FC34224','TRE44533324','Cisco','Router','Allows access to back room','');

INSERT INTO inventory(date\_purchased,date\_implemented,model,serial\_number,company,type,product\_description,add\_notes)

VALUES ('2014-6-14','2014-7-1','CD343334','REWRFE333322','Dell','Printer','BW with networking','');

INSERT INTO inventory(date\_purchased,date\_implemented,model,serial\_number,company,type,product\_description,add\_notes)

VALUES ('2015-3-6','2015-4-23','WE338374','YTR6566544','Dell','Printer','BW local','');

INSERT INTO inventory(date\_purchased,date\_implemented,model,serial\_number,company,type,product\_description,add\_notes)

VALUES ('2015-3-6','2015-4-23','YU3478484','OP554432224','HP','Laptop','Standard Config','');

INSERT INTO inventory(date\_purchased,date\_implemented,model,serial\_number,company,type,product\_description,add\_notes)

VALUES ('2015-3-6','2015-4-23','IO47754','WERWEEF4445','Microsoft','Software','Proprietary for backend accouting','');

#LOCATION

INSERT INTO location(building,room\_number) VALUES ('Macnore',232);

INSERT INTO location(building,room\_number) VALUES ('Macnore',123);

INSERT INTO location(building,room\_number) VALUES ('Macnore',255);

INSERT INTO location(building,room\_number) VALUES ('Truman',3);

INSERT INTO location(building,room\_number) VALUES ('Morris',34);

INSERT INTO location(building,room\_number) VALUES ('Stallworth',156);

INSERT INTO location(building,room\_number) VALUES ('Truman',221);

#LOCATION\_INVENTORY

INSERT INTO location\_inventory(location\_id,inventory\_id) VALUES (4,1);

INSERT INTO location\_inventory(location\_id,inventory\_id) VALUES (3,1);

INSERT INTO location\_inventory(location\_id,inventory\_id) VALUES (1,1);

INSERT INTO location\_inventory(location\_id,inventory\_id) VALUES (6,1);

INSERT INTO location\_inventory(location\_id,inventory\_id) VALUES (4,1);

INSERT INTO location\_inventory(location\_id,inventory\_id) VALUES (2,1);

#INVSCHEDULE

INSERT INTO invschedule(week,months) VALUES (1,1);

INSERT INTO invschedule(week,months) VALUES (2,1);

INSERT INTO invschedule(week,months) VALUES (3,1);

INSERT INTO invschedule(week,months) VALUES (4,1);

INSERT INTO invschedule(week,months) VALUES (5,1);

INSERT INTO invschedule(week,months) VALUES (1,2);

INSERT INTO invschedule(week,months) VALUES (2,2);

INSERT INTO invschedule(week,months) VALUES (3,2);

INSERT INTO invschedule(week,months) VALUES (4,2);

INSERT INTO invschedule(week,months) VALUES (5,2);

INSERT INTO invschedule(week,months) VALUES (1,3);

INSERT INTO invschedule(week,months) VALUES (2,3);

INSERT INTO invschedule(week,months) VALUES (3,3);

INSERT INTO invschedule(week,months) VALUES (4,3);

INSERT INTO invschedule(week,months) VALUES (5,3);

INSERT INTO invschedule(week,months) VALUES (1,4);

INSERT INTO invschedule(week,months) VALUES (2,4);

INSERT INTO invschedule(week,months) VALUES (3,4);

INSERT INTO invschedule(week,months) VALUES (4,4);

INSERT INTO invschedule(week,months) VALUES (5,4);

INSERT INTO invschedule(week,months) VALUES (1,5);

INSERT INTO invschedule(week,months) VALUES (2,5);

INSERT INTO invschedule(week,months) VALUES (3,5);

INSERT INTO invschedule(week,months) VALUES (4,5);

INSERT INTO invschedule(week,months) VALUES (5,5);

INSERT INTO invschedule(week,months) VALUES (1,6);

INSERT INTO invschedule(week,months) VALUES (2,6);

INSERT INTO invschedule(week,months) VALUES (3,6);

INSERT INTO invschedule(week,months) VALUES (4,6);

INSERT INTO invschedule(week,months) VALUES (5,6);

INSERT INTO invschedule(week,months) VALUES (1,7);

INSERT INTO invschedule(week,months) VALUES (2,7);

INSERT INTO invschedule(week,months) VALUES (3,7);

INSERT INTO invschedule(week,months) VALUES (4,7);

INSERT INTO invschedule(week,months) VALUES (5,7);

INSERT INTO invschedule(week,months) VALUES (1,8);

INSERT INTO invschedule(week,months) VALUES (2,8);

INSERT INTO invschedule(week,months) VALUES (3,8);

INSERT INTO invschedule(week,months) VALUES (4,8);

INSERT INTO invschedule(week,months) VALUES (5,8);

INSERT INTO invschedule(week,months) VALUES (1,9);

INSERT INTO invschedule(week,months) VALUES (2,9);

INSERT INTO invschedule(week,months) VALUES (3,9);

INSERT INTO invschedule(week,months) VALUES (4,9);

INSERT INTO invschedule(week,months) VALUES (5,9);

INSERT INTO invschedule(week,months) VALUES (1,10);

INSERT INTO invschedule(week,months) VALUES (2,10);

INSERT INTO invschedule(week,months) VALUES (3,10);

INSERT INTO invschedule(week,months) VALUES (4,10);

INSERT INTO invschedule(week,months) VALUES (5,11);

INSERT INTO invschedule(week,months) VALUES (1,11);

INSERT INTO invschedule(week,months) VALUES (2,11);

INSERT INTO invschedule(week,months) VALUES (3,11);

INSERT INTO invschedule(week,months) VALUES (4,11);

INSERT INTO invschedule(week,months) VALUES (5,11);

INSERT INTO invschedule(week,months) VALUES (1,12);

INSERT INTO invschedule(week,months) VALUES (2,12);

INSERT INTO invschedule(week,months) VALUES (3,12);

INSERT INTO invschedule(week,months) VALUES (4,12);

INSERT INTO invschedule(week,months) VALUES (5,12);

#INVSCHEDULE\_INVENTORY

INSERT INTO invschedule\_inventory(invschedule\_id,inventory\_id) VALUES (4,1);

INSERT INTO invschedule\_inventory(invschedule\_id,inventory\_id) VALUES (23,2);

INSERT INTO invschedule\_inventory(invschedule\_id,inventory\_id) VALUES (22,3);

INSERT INTO invschedule\_inventory(invschedule\_id,inventory\_id) VALUES (14,4);

INSERT INTO invschedule\_inventory(invschedule\_id,inventory\_id) VALUES (13,5);

INSERT INTO invschedule\_inventory(invschedule\_id,inventory\_id) VALUES (19,6);

#WORKS

INSERT INTO works(employee\_id,inventory\_id,date\_assigned,date\_complete,description,notes)

VALUES (5,3,'2015-1-13','2015-1-14','Modification made to back', null);

INSERT INTO works(employee\_id,inventory\_id,date\_assigned,date\_complete,description,notes)

VALUES (4,4,'2015-2-1','2015-2-2','Update complete', 'transfer belt starting to go');

INSERT INTO works(employee\_id,inventory\_id,date\_assigned,date\_complete,description,notes)

VALUES (2,6,'2015-2-1','2015-2-1','Called company, mod firmware', 'may have overheating issue');

INSERT INTO works(employee\_id,inventory\_id,date\_assigned,date\_complete,description,notes)

VALUES (6,2,'2015-3-13','2015-3-13','Update complete for this year', null);

INSERT INTO works(employee\_id,inventory\_id,date\_assigned,date\_complete,description,notes)

VALUES (1,1,'2015-3-23',null,'Waiting for part 443223', null);

INSERT INTO works(employee\_id,inventory\_id,date\_assigned,date\_complete,description,notes)

VALUES (6,5,'2015-4-13',null,'Waiting for call back from company', null);