**CIS6300 Business Data Management**

**[Using Microsoft SQL Server Database]**

**Assignment 3**

**Fall 2019**

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**Part A:**

Entity: emplevel

Attributes: LevelNo, LowSalary, HighSalary

Primary Key: LevelNo

Foreign Key: None

Entity: Position

Attributes: PositionID, PosDec

Primary Key: PositionID

Foreign Key: None

Entity: qualification

Attributes: QualId, QualDesc

Primary Key: QualId

Foreign Key: None

Entity: dept

Attributes: DeptId, DeptName, Location, EmployeeId

Primary Key: DeptId

Foreign Key: EmployeeId

Entity: employee

Attributes: EmployeeId, Lname, Fname, PositionId, Supervisor, HireDate, Salary, Commission, DeptId, QualId

Primary Key: EmployeeId

Foreign Key: PositionId, Supervisor, DeptId, QualId

Entity: dependent

Attributes: EmployeeId, DependentId, DepDOB, Relation

Primary Key: DependentId, EmployeeId

Foreign Key: EmployeeId

**ERD**

**Part B**

CREATE TABLE zip

(ZIP CHAR(5), city varchar(20), state varchar(20),

CONSTRAINT zip\_zip\_pk PRIMARY KEY (ZIP));

CREATE TABLE customer

(CUSTID DECIMAL, FName VARCHAR(20), LName VARCHAR(20), Street VARCHAR(20), ZIP CHAR(5),

CONSTRAINT customer\_custid\_pk PRIMARY KEY (CUSTID), CONSTRAINT zip\_zip\_fk FOREIGN KEY(ZIP) REFERENCES zip (ZIP));

CREATE TABLE sales\_header

(SID INT, SaleDate DATE, SaleAmount DECIMAL,

CONSTRAINT sales\_header\_sid\_pk PRIMARY KEY (SID));

CREATE TABLE component

(COMPID INT, Description VARCHAR(20), Qty\_On\_Head INT, Qty\_Reserved INT, Qty\_Available INT, CONSTRAINT component\_compid\_pk PRIMARY KEY (COMPID));

CREATE TABLE equipment

(EQPID INT, Description VARCHAR(20), Deposit DECIMAL, Qty\_On\_Head INT, Qty\_Reserved INT, Qty\_Available INT, CONSTRAINT equipment\_eqpid\_pk PRIMARY KEY (EQPID));

CREATE TABLE reserv\_head

(RSVID INT, CUSTID DECIMAL, RSVDate DATE, Deposit DECIMAL,

CONSTRAINT reserv\_head\_resvid\_pk PRIMARY KEY(RSVID),

CONSTRAINT customer\_custid\_fk FOREIGN KEY (CUSTID) REFERENCES customer (CUSTID));

CREATE TABLE reserv\_detail

(RSVID INT, EQPID INT, Quantity INT, CostPerUnit DECIMAL, LineTotal INT,

CONSTRAINT reserv\_detail\_resvid\_pk PRIMARY KEY(RSVID),

CONSTRAINT reserv\_head\_resvid\_fk FOREIGN KEY (RSVID) REFERENCES reserv\_head (RSVID),

CONSTRAINT equipment\_eqpid\_fk FOREIGN KEY (EQPID) REFERENCES equipment (EQPID));

CREATE TABLE eqip\_bom

(EQPID INT, COMPID INT, Quantity INT,

CONSTRAINT eqip\_bom\_eqpid\_pk PRIMARY KEY (EQPID),

CONSTRAINT eqip\_bom\_eqpid\_fk FOREIGN KEY (EQPID) REFERENCES eqip\_bom (EQPID),

CONSTRAINT component\_compid\_fk FOREIGN KEY (COMPID) REFERENCES component (COMPID));

CREATE TABLE rent\_detail

(RENTID INT, EQPID INT, Quantity INT, CostPerUnit DECIMAL, LineTotal INT, Returned varchar(20), CONSTRAINT rent\_detail\_rentid\_pk PRIMARY KEY(RENTID),

CONSTRAINT rent\_detail\_rentid\_fk FOREIGN KEY (RENTID) REFERENCES rent\_detail (RENTID),

CONSTRAINT rent\_detail\_eqpid\_fk FOREIGN KEY (EQPID) REFERENCES equipment (EQPID));

CREATE TABLE rent\_head

(RENTID INT, RENTDate DATE, CHK\_Date DATE, Return\_Date DATE, RSVID INT, RentAmount decimal, Tax DECIMAL, GrandTot DECIMAL, ReturnAll VARCHAR(20),

CONSTRAINT rent\_head\_rentid\_pk PRIMARY KEY (RENTID),

CONSTRAINT reserv\_head\_rsvid\_fk FOREIGN KEY (RSVID) REFERENCES reserv\_head (RSVID));

CREATE TABLE payment

(PMTID INT, SID INT, RENTID INT, AmountDue decimal, AmountPaid DECIMAL, PayAdjustment DECIMAL

CONSTRAINT payment\_pmtid\_pk PRIMARY KEY (PMTID),

CONSTRAINT sales\_header\_sid\_fk FOREIGN KEY (SID) REFERENCES sales\_header (SID),

CONSTRAINT rent\_head\_rentid\_fk FOREIGN KEY (RENTID) REFERENCES rent\_head (RENTID));

CREATE TABLE sales\_detail

(EQPID INT, SID INT, LineNumber INT, quantity int, UnitPrice DECIMAL, LinePrice DECIMAL

CONSTRAINT sales\_detail\_linenumber\_pk PRIMARY KEY (LineNumber),

CONSTRAINT sales\_detail\_eqpid\_fk FOREIGN KEY (EQPID) REFERENCES equipment (EQPID),

CONSTRAINT sales\_detail\_sid\_fk FOREIGN KEY (SID) REFERENCES sales\_header (SID),

);

**Adding Values:**

zip

INSERT INTO zip VALUES( 49006, 'kalamazoo', 'michigan');

INSERT INTO zip VALUES( 49009, 'kalamazoo', 'michigan');

INSERT INTO zip VALUES( 49546, 'grand rapids', 'michigan');

customer

INSERT INTO customer VALUES (123, 'sam', 'tal', 'kendall ave', 49006);

INSERT INTO customer VALUES(222, 'vam', 'anne', 'shade leaf', 49546);

sales\_header

INSERT INTO sales\_header VALUES(1111, '01/09/2019', 1000);

INSERT INTO sales\_header VALUES(9999, '09/19/2019', 1000);

component

INSERT INTO component VALUES(56545, 'new', 10, 5, 5);

INSERT INTO component VALUES(95645, 'old', 20, 5, 10);

equipment

INSERT INTO equipment VALUES(996696, 'old',50, 10, 5, 5);

INSERT INTO equipmentVALUES (565646, 'new',30, 20, 5, 10);

reserv\_head

INSERT INTO reserv\_head VALUES(757565, 123, 01/09/2019, 10);

INSERT INTO reserv\_head VALUES(565859, 222, 09/19/2019, 10);

reserv\_detail

INSERT INTO reserv\_detail VALUES(757565, 996696, 5, 100, 10);

INSERT INTO reserv\_detail VALUES(565859, 565646, 5, 100, 10);

eqip\_bom

INSERT INTO eqip\_bom VALUES(996696, 56545, 10);

INSERT INTO eqip\_bom VALUES(565646, 95645, 10);

rent\_detail

INSERT INTO rent\_detail VALUES(101010, 996696, 10, 15, 10, 'yes');

INSERT INTO rent\_detail VALUES(110110, 565646, 10, 15, 10, 'no');

rent\_head

INSERT INTO rent\_head VALUES (101010, '01/09/2019', '05/09/2019', '10/09/2019', 757565, 15, '.90', '15.9', 'no');

INSERT INTO rent\_head VALUES(110110, '09/09/2019', '15/09/2019', '19/09/2019', 565859, 15, 1, 16, 'no');

payment

INSERT INTO payment VALUES(2528, 1111, 101010, 1, 15, 0);

INSERT INTO payment VALUES(2825, 9999, 110110, 1, 15, 0);

sales\_details

INSERT INTO sales\_detail VALUES(996696, 1111, 1, 10, 100, 1000);

INSERT INTO sales\_detail VALUES(565646, 9999, 2, 10, 100, 1000);