**Data Modeling Review**

1. Create two tables based on the E-R model shown in below and the business rules in the following list for a work order-tracking database. Include all the constraints in the CREATE TABLE statements. You should have only two CREATE TABLE statements and no ALTER TABLE statements. Name all constraints except NOT NULLs.

**Project**

ProjId

P\_name

P\_desc

P\_budget

**Workorders**

WoId

ProjId

Wo\_desc

Wo\_assigned Will hold a name for the person assigned

Wo\_hours

Wo\_start Dates

Wo\_due

Wo\_complete Will hold a Y or N

**Workorders E-R model**

• Use your judgment for column datatypes and sizes.

• ProjId and WoId are used to uniquely identify rows in s tables.

• Each project added must assigned a name, and no duplicate project names are allowed.

• Each work order must be assigned to a valid project when added, and be assigned a description and number of hours.

• Each work order added must have a different description.

• The number of hours assigned to a work order should be greater than zero.

• If data is provided for the Wo\_complete column, only Y or N are acceptable values.

Create and execute the SQL statements needed to enforce the data relationships among these tables.

Place your queries here including screen shots of objects created (tables - columns – constraints)

CREATE TABLE Project(

/\*Variables for Project table\*/

ProjId varchar(50), uix\_P\_name varchar(50),P\_desc varchar(50), P\_budget int,

/\*Constraints for Project table\*/

CONSTRAINT Project\_ProjId\_pk PRIMARY KEY(ProjId),

CONSTRAINT Project\_ProjId\_ck UNIQUE(ProjId),

);

CREATE TABLE Workorders(

/\*Variables for Workorders table\*/

WoId varchar(50), ProjId varchar(50), Wo\_desc varchar(50), Wo\_assigned varchar(50),

Wo\_Hours int, Wo\_start datetime, Wo\_Due datetime, Wo\_complete varchar(1),

/\*Constraints for Workorders table\*/

CONSTRAINT Workorders\_WoId\_pk PRIMARY KEY(WoId),

CONSTRAINT Workorders\_ProjId\_fk FOREIGN KEY(ProjId) REFERENCES Project(ProjId),

CONSTRAINT Workorders\_ProjId\_ck UNIQUE(ProjId),

CONSTRAINT Workorders\_WoId\_ck UNIQUE(WoId),

CONSTRAINT Workorders\_Wo\_desc\_ck UNIQUE(Wo\_desc),

CONSTRAINT Workorders\_Wo\_hours\_ck CHECK (Wo\_hours > 0),

CONSTRAINT Workorders\_Wo\_complete\_ck CHECK(Wo\_complete IN ('Y', 'N'))

);

Text

Description automatically generated with medium confidence