-- Addresses(Address, ZIP, City\_Name, State\_Name)

CREATE TABLE Addresses (

Address VARCHAR(255) NOT NULL PRIMARY KEY,

ZIP VARCHAR(255),

City\_Name VARCHAR(255),

State\_Name VARCHAR(255)

);

-- Person(Address, Person\_ID, Name, School, Phone, Email)

CREATE TABLE Person (

Person\_ID INT NOT NULL PRIMARY KEY,

Name VARCHAR(255),

School VARCHAR(255),

Phone VARCHAR(255),

Email VARCHAR(255),

Address VARCHAR(255)

);

CREATE TABLE Laboratory (

Name VARCHAR(255) NOT NULL,

School VARCHAR(255) NOT NULL,

Location VARCHAR(255),

CONSTRAINT KEY1 PRIMARY KEY (Name, School)

);

CREATE TABLE Equipment (

Name VARCHAR(255),

Model\_No VARCHAR(255),

Date\_purchased VARCHAR(255),

ID VARCHAR(255) NOT NULL,

Lab\_Name VARCHAR(255) NOT NULL,

Lab\_School VARCHAR(255) NOT NULL,

CONSTRAINT KEY2 PRIMARY KEY (ID, Lab\_Name, Lab\_School),

CONSTRAINT KEY20 FOREIGN KEY (Lab\_Name, Lab\_School)

REFERENCES Laboratory (Name, School)

ON UPDATE NO ACTION,

);

CREATE TABLE Professor (

Person\_ID INT NOT NULL PRIMARY KEY,

FOREIGN KEY (Person\_ID)

REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Fields\_of\_Expertise VARCHAR(255)

);

-- Student(Person\_ID, Student\_ID, Majors\_Minors, Admission\_Date, takecourse\_Prof\_Person\_ID)

CREATE TABLE Student (

Person\_ID INT NOT NULL,

FOREIGN KEY (Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Student\_ID INT NOT NULL PRIMARY KEY,

Majors\_Minors VARCHAR(255),

Admissin\_Date DATE,

takecourse\_Prof\_Person\_ID INT,

FOREIGN KEY (takecourse\_Prof\_Person\_ID)

REFERENCES Professor (Person\_ID)

ON UPDATE NO ACTION,

);

-- Undergraduate(Person\_ID, Undergraduate\_Student\_ID)

CREATE TABLE Undergraduate (

Person\_ID INT,

FOREIGN KEY (Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Undergraduate\_Student\_ID INT NOT NULL PRIMARY KEY,

FOREIGN KEY (Undergraduate\_Student\_ID) REFERENCES Student (Student\_ID)

ON UPDATE NO ACTION,

);

-- Graduate(Student\_Person\_ID, Graduate\_Student\_ID, Prof\_ Person\_ID, Supervise\_Topic)

CREATE TABLE Graduate (

Person\_ID INT,

FOREIGN KEY (Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Graduate\_Student\_ID INT NOT NULL,

FOREIGN KEY (Graduate\_Student\_ID) REFERENCES Student (Student\_ID)

ON UPDATE NO ACTION,

Prof\_Person\_ID INT,

FOREIGN KEY (Prof\_Person\_ID) REFERENCES Professor (Person\_ID)

ON UPDATE NO ACTION,

Supervise\_Topic VARCHAR(255),

PRIMARY KEY (Graduate\_Student\_ID, Prof\_Person\_ID)

);

CREATE TABLE Experiments (

Teaching\_Lab\_Name VARCHAR(255) NOT NULL,

Teaching\_Lab\_School VARCHAR(255) NOT NULL,

Undergraduate\_Person\_ID INT NOT NULL,

FOREIGN KEY (Undergraduate\_Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Undergraduate\_Student\_ID INT NOT NULL,

FOREIGN KEY (Undergraduate\_Student\_ID) REFERENCES Student (Student\_ID)

ON UPDATE NO ACTION,

Dates DATE,

Attendance INT,

CONSTRAINT KEY3 PRIMARY KEY (Teaching\_Lab\_Name, Teaching\_Lab\_School, Undergraduate\_Person\_ID, Undergraduate\_Student\_ID),

CONSTRAINT KEY30 FOREIGN KEY (Teaching\_Lab\_Name, Teaching\_Lab\_School) REFERENCES Laboratory (Name, School)

ON UPDATE NO ACTION,

);

CREATE TABLE Teaching\_Laboratory (

Lab\_Name VARCHAR(255) NOT NULL,

Lab\_School VARCHAR(255) NOT NULL,

CONSTRAINT KEY40 FOREIGN KEY (Lab\_Name, Lab\_School)

REFERENCES Laboratory (Name, School)

ON UPDATE NO ACTION,

CONSTRAINT KEY4 PRIMARY KEY (Lab\_Name, Lab\_School)

);

CREATE TABLE Research\_Laboratory (

Lab\_Name VARCHAR(255) NOT NULL,

Lab\_School VARCHAR(255) NOT NULL,

CONSTRAINT KEY5 PRIMARY KEY (Lab\_Name, Lab\_School),

CONSTRAINT KEY50 FOREIGN KEY (Lab\_Name, Lab\_School)

REFERENCES Laboratory (Name, School)

ON UPDATE NO ACTION,

);

CREATE TABLE Assign (

Graduate\_Person\_ID INT NOT NULL,

FOREIGN KEY (Graduate\_Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Graduate\_Student\_ID INT NOT NULL,

FOREIGN KEY (Graduate\_Student\_ID) REFERENCES Student (Student\_ID)

ON UPDATE NO ACTION,

Lab\_Name VARCHAR(255) NOT NULL,

Lab\_School VARCHAR(255) NOT NULL,

CONSTRAINT KEY6 PRIMARY KEY (Graduate\_Person\_ID, Graduate\_Student\_ID, Lab\_Name, Lab\_School),

CONSTRAINT KEY60 FOREIGN KEY (Lab\_Name, Lab\_School)

REFERENCES Laboratory (Name, School)

ON UPDATE NO ACTION,

);

CREATE TABLE Timetable (

Prof\_Person\_ID INT NOT NULL,

FOREIGN KEY (Prof\_Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Date\_Time DATE NOT NULL,

Class VARCHAR(255) NOT NULL,

CONSTRAINT KEY7 PRIMARY KEY (Date\_Time, Class, Prof\_Person\_ID)

);

CREATE TABLE Course (

ID VARCHAR(255) NOT NULL PRIMARY KEY,

Name VARCHAR(255),

Dates DATE,

Prof\_Person\_ID INT

);

-- Take(Person\_ID, Student\_ID, Course\_ID, Take\_Date)

CREATE TABLE Takes (

Person\_ID INT NOT NULL,

FOREIGN KEY (Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Student\_ID INT NOT NULL,

Course\_ID VARCHAR(255) NOT NULL,

Take\_Date DATE,

CONSTRAINT KEY8 PRIMARY KEY (Person\_ID, Student\_ID, Course\_ID)

);

-- State(Name)

CREATE TABLE States (

Name VARCHAR(255) NOT NULL PRIMARY KEY

);

-- City(City\_Name, State\_Name)

CREATE TABLE City (

City\_Name VARCHAR(255) NOT NULL,

State\_Name VARCHAR(255) NOT NULL,

FOREIGN KEY (State\_Name) REFERENCES States (Name)

ON UPDATE NO ACTION,

CONSTRAINT Key9 PRIMARY KEY (State\_Name, City\_Name)

);

-- Staff(Person\_ID, Staff\_ID, Date\_Hired, Position)

CREATE TABLE Staff (

Person\_ID INT,

FOREIGN KEY (Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Staff\_ID INT NOT NULL PRIMARY KEY,

Date\_Hired DATE,

Position VARCHAR(255)

);

-- A child table references a Parent table's unique key as a foreign key,

-- the column(s) in the child table that references should also have a unique key on it.

CREATE TABLE Admin\_Staff (

Person\_ID INT,

FOREIGN KEY (Person\_ID) REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Admin\_Staff\_ID INT PRIMARY KEY

);

-- Technical\_Staff(Person\_ID, Technical\_Staff\_ID, Lab\_Name, Lab\_School)

CREATE TABLE Technical\_Staff (

Person\_ID INT,

FOREIGN KEY (Person\_ID)

REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Technical\_Staff\_ID INT NOT NULL PRIMARY KEY,

Lab\_Name VARCHAR(255),

Lab\_School VARCHAR(255)

);

-- Stakeholder(Person\_ID, Domain)

CREATE TABLE Stakeholder (

Person\_ID INT NOT NULL PRIMARY KEY,

FOREIGN KEY (Person\_ID)

REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Domain VARCHAR(255)

);

-- Comments/Suggestions(Stakeholder\_Person\_ID, Date, Topic)

CREATE TABLE Comments\_n\_Suggestions (

Stakeholder\_Person\_ID INT NOT NULL,

FOREIGN KEY (Stakeholder\_Person\_ID)

REFERENCES Person (Person\_ID)

ON UPDATE NO ACTION,

Dates DATE,

Topic VARCHAR(255),

PRIMARY KEY (Stakeholder\_Person\_ID, Dates, Topic)

);