Homework 2

Name: Nam Jun Lee

WSU ID: 011606459

**Part a**



CREATE TABLE STUDENT (

StudentID INT NOT NULL PRIMARY KEY,

StudentFirst VARCHAR(20) NOT NULL,

StudentLast VARCHAR(20) NOT NULL,

StudentGender VARCHAR(6) NOT NULL,

StudnetDOB DATE NOT NULL);

CREATE TABLE INSTRUCTOR (

InstructorID INT NOT NULL PRIMARY KEY,

InstructorFirst VARCHAR(20) NOT NULL,

InstructorLast VARCHAR(20) NOT NULL,

InstructorEmail CHAR(20) NOT NULL);

CREATE TABLE CLASS (

ClassID INT NOT NULL,

Title CHAR(20) NOT NULL,

InstructorID INT NOT NULL,

CONSTRAINT pk\_class PRIMARY KEY (ClassID),

CONSTRAINT fk\_instructor\_class FOREIGN KEY (InstructorID)

REFERENCES INSTRUCTOR (InstructorID));

CREATE TABLE ENROLLMENT (

EnrollmentID INT NOT NULL,

StudentID INT NOT NULL,

ClassID INT NOT NULL,

Semester VARCHAR(20) NOT NULL,

Year CHAR(4) NOT NULL,

CONSTRAINT pk\_enrollment PRIMARY KEY (EnrollmentID),

CONSTRAINT fk\_student\_enrollment FOREIGN KEY (StudentID)

REFERENCES STUDENT (StudentID),

CONSTRAINT fk\_class\_enrollment FOREIGN KEY (ClassID)

REFERENCES CLASS (ClassID));

INSERT INTO STUDENT (StudentID, StudentFirst, StudentLast, StudentGender, StudnetDOB)

VALUES (1, 'Chris', 'Young', 'Male', '03-14-1996');

INSERT INTO STUDENT (StudentID, StudentFirst, StudentLast, StudentGender, StudnetDOB)

VALUES (2, 'Rouis', 'Jane', 'Female', '01-11-1998');

INSERT INTO STUDENT (StudentID, StudentFirst, StudentLast, StudentGender, StudnetDOB)

VALUES (3, 'Olive', 'James', 'Male', '06-25-1993');

INSERT INTO INSTRUCTOR (InstructorID, InstructorFirst, InstructorLast, InstructorEmail)

VALUES (1, 'Chark', 'Lee', 'char12@gmail.com');

INSERT INTO INSTRUCTOR (InstructorID, InstructorFirst, InstructorLast, InstructorEmail)

VALUES (2, 'Jayo', 'Christina', 'jayo5672@gmail.com');

INSERT INTO INSTRUCTOR (InstructorID, InstructorFirst, InstructorLast, InstructorEmail)

VALUES (3, 'Steven', 'John', 'manner33@gmail.com');

INSERT INTO CLASS (ClassID, Title, InstructorID)

VALUES (1, 'ECON 201', 2);

INSERT INTO CLASS (ClassID, Title, InstructorID)

VALUES (2, 'MATH 435', 3);

INSERT INTO CLASS (ClassID, Title, InstructorID)

VALUES (3, 'ENGLISH 401', 1);

INSERT INTO ENROLLMENT (EnrollmentID, StudentID, ClassID, Semester, Year)

VALUES (1, 1, 1, 'Spring', '2016');

INSERT INTO ENROLLMENT (EnrollmentID, StudentID, ClassID, Semester, Year)

VALUES (2, 2, 3, 'Fall', '2018');

INSERT INTO ENROLLMENT (EnrollmentID, StudentID, ClassID, Semester, Year)

VALUES (3, 3, 2, 'Spring', '2019');

INSERT INTO ENROLLMENT (EnrollmentID, StudentID, ClassID, Semester, Year)

VALUES (4, 1, 1, 'Spring', '2019');

select \* from STUDENT;

select \* from INSTRUCTOR;

select \* from CLASS;

select \* from ENROLLMENT;

**Part b**



DROP TABLE PRESIDENT;

DROP TABLE PARTY;

DROP TABLE PRESIDENT\_PARTY;

DROP TABLE TERM;

CREATE TABLE PRESIDENT (

PresidentID INT NOT NULL PRIMARY KEY,

PresidentFirst VARCHAR(20) NOT NULL,

PresidentLast VARCHAR(20) NOT NULL,

PresidentCity VARCHAR(20) NOT NULL,

PresidentState VARCHAR(20) NOT NULL,

PresidentGender VARCHAR(6) NOT NULL,

PresidentDOB DATE NOT NULL);

CREATE TABLE PARTY (

PartyID INT NOT NULL PRIMARY KEY,

PartyName VARCHAR(15) NOT NULL);

CREATE TABLE PRESIDENT\_PARTY (

PartyID INT NOT NULL,

PresidentID INT NOT NULL,

PartyChange VARCHAR(40) NOT NULL,

CONSTRAINT pk\_party PRIMARY KEY (PartyID, PresidentID),

CONSTRAINT fk\_party\_each\_president FOREIGN KEY (PartyID)

REFERENCES PARTY (PartyID),

CONSTRAINT fk\_party\_president FOREIGN KEY (PresidentID)

REFERENCES PRESIDENT (PresidentID));

CREATE TABLE TERM (

TermID INT NOT NULL,

PresidentID INT NOT NULL,

TermStart DATE NOT NULL,

TermEnd DATE NOT NULL,

CONSTRAINT pk\_term PRIMARY KEY (TermID, PresidentID),

CONSTRAINT fk\_term\_president FOREIGN KEY (PresidentID)

REFERENCES PRESIDENT (PresidentID));

INSERT INTO PRESIDENT (PresidentID, PresidentFirst, PresidentLast, PresidentCity,

PresidentState, PresidentGender, PresidentDOB)

VALUES (1, 'Grover', 'Clevelad', 'Caldwell', 'NJ', 'Male', '03-18-1837');

INSERT INTO PRESIDENT (PresidentID, PresidentFirst, PresidentLast, PresidentCity,

PresidentState, PresidentGender, PresidentDOB)

VALUES (2, 'Benjamin', 'Harrison', 'North Bend', 'OH', 'Male', '08-20-1833');

INSERT INTO PRESIDENT (PresidentID, PresidentFirst, PresidentLast, PresidentCity,

PresidentState, PresidentGender, PresidentDOB)

VALUES (3, 'Calvin', 'Coolidge', 'Plymouth', 'VT', 'Male', '07-04-1872');

INSERT INTO PARTY (PartyID, PartyName)

VALUES (1, 'Republican');

INSERT INTO PARTY (PartyID, PartyName)

VALUES (2, 'Democratic');

INSERT INTO PARTY (PartyID, PartyName)

VALUES (3, 'Whig');

INSERT INTO PRESIDENT\_PARTY (PartyID, PresidentID, PartyChange)

VALUES (2, 1, 'Democrat his entire career');

INSERT INTO PRESIDENT\_PARTY (PartyID, PresidentID, PartyChange)

VALUES (1, 2, 'Whig until 01-01-1856');

INSERT INTO PRESIDENT\_PARTY (PartyID, PresidentID, PartyChange)

VALUES (1, 3, 'Repulic his entire career');

INSERT INTO TERM (TermID, PresidentID, TermStart, TermEnd)

VALUES (22, 1, '03-04-1885', '03-04-1889');

INSERT INTO TERM (TermID, PresidentID, TermStart, TermEnd)

VALUES (23, 2, '03-04-1889', '03-04-1893');

INSERT INTO TERM (TermID, PresidentID, TermStart, TermEnd)

VALUES (30, 3, '08-02-1923', '03-04-1929');

select \* from PRESIDENT;

select \* from PARTY;

select \* from PRESIDENT\_PARTY;

select \* from TERM;

**How will you model the case of Grover Cleveland who served nonconsecutive terms as president?**

In the case of Grover Cleveland, where he did not serve a second term, his predecessors and successors can be identified on the start and end dates, and will be drawn through the president's id term id to create a data model.

**Is it feasible that political party affiliation may change? If so, how will you handle it?**

Party affiliation may change. But one president can belong to one party. So, I can set up another PRESIDENT\_PARTY table to see which political party who are currently in and when it changed.