Documentation of Assumptions

UNIVERSITY/COLLEGE:
- Technically Colleges and Universities are different entities, but they are represented by one entity in this database.
- University IDs should be a unique 8 character string.

DEPARTMENT
- Department ID should be at most a 10 character string unique to its university.

MAJOR/MINOR
- Majors and minors must have a unique name. Thus they do not need a department to be in the primary key.
- Students cannot pursue two of the same major/minor/degree
- We are only interested in the majors and minors that students are currently pursuing.
- Students may have multiple declared majors/minors, but if their major in undeclared it will be automatically given the value "Liberal Arts" (this is what real colleges do).

STUDENT
- Students must have a valid visa and an unexpired I20
- Student type is either graduate or undergraduate.

JOB
- We do not need to record the information for jobs that students are not currently working
- Student can work a maximum of 20 hours a week
- Because students can work a maximum of 20 hours a week we assume that they can only work 1 part-time job.
- Students must work on campus, or have special permission from USCIS

CITIZEN
- Students in this database must be international students, and they can have dual or multiple citizenship.

COURSE
- Course IDs are at most a 10 character string unique to their university
- Students cannot take the same course in a semester, but they can repeat courses later. Thus the record of course taken must include semester.

DIPLOMA
- Students could have attended a college previously without receiving a diploma.

REGISTERED
- Undergraduates must be registered for a minimum of 12 credit classes.
- Graduates must be registered for a minimum of 9 credit classes.

Entity-Relationship Diagram

UNIVERSITY entity attributes: U_id (key), U_name, U_address, Dean (composite: Dean_name, Dean_address)

DEPARTMENT entity attributes: D_id (key), D_name, D_address, Head (composite: Head_name, Head_address)

DEGREE entity attributes: Degree_name (key), Degree_descr

COUNTRY entity attributes: Country_name (key), Lang, Capital, Ethnicity

REGULATION entity attributes: R_id (key), R_name, R_descr

COURSE entity attributes: C_id (key), C_name, Credits

JOB entity attributes: J_name (key), J_type, Employer (composite: Emp_name, Emp_phone, Emp_address)

STUDENT entity attributes: Name (Fname, Minit, Lname), Ssn (key), Visa (V_type, I20_exp), Bdate, Sex, Adress, Type, Class, Enroll_date

Relationships:
- PART OF (UNIVERSITY N — 1 DEPARTMENT)
- DIPLOMA (UNIVERSITY N — DEGREE N), attributes: Attained, Gpa
- DEGREE SOUGHT
- CITIZEN
- REGULATES (REGULATION N — N)
- OFFERS (N — 1 COURSE)
- MAJOR (DEPARTMENT N — N), attribute: Mj_name
- MINOR (DEPARTMENT N — N), attribute: Mn_name
- REGISTERED (N — N)
- TRANSCRIPT, attributes: Grade, Semester
- WORKS AT (STUDENT N — 1 JOB), attribute: Hrs_per_week