Survey of Programming Languages

Table Design

Table Name	Columns
user	user_id (PK), first_name, last_name, email, password, profile_id (FK), address_id (FK)
address	address_id (PK), address1, address2, city, state, zip _code, country
user_profile	profile_id (PK), role (Student, Professor, Admin)
course	course_id (PK), course_name
course_section	section_id (PK), course_id (FK), professor_id (FK), room_id (FK), semester_id (FK), total_seats
room	room_id (PK), room_number, building_name, location
attendance_qr	qr_id (PK), section_id (FK), qr_link, generated_date, generated_time, expiration_time
semester	semester_id (PK), semester_type (Fall, Spring, Summer-1, Summer-2), year, start_date, end_date
student_attendance	attendance_id (PK), student_id (FK), section_id (FK), qr_id (FK), attendance_date, attendance_time Attended (Boolean), student_answer student_question
section_schedule	schedule_id (PK), section_id (FK), day_of_week (Monday, Tuesday etc), start_time, end_time

Table Relationships:

User – Address -> 1: Many (1:1 if not able to handle)

User – User Profile -> Many: 1

Course_Section – Course -> Many: 1

Course_Section – Professor -> Many: 1

Course_Section – Room -> Many: 1

Course_Section – Semester -> Many: 1

Attendance_qr - Course_Section -> Many: 1

Student_attendance – User (Student) -> Many: 1

Student_attendance – Course_Section -> Many: 1

Student_attendance – Attendance_qr -> Many: 1

Section_schedule – Course_Section -> Many: 1