CREATE TABLE undergraduate\_students (  
    student\_id SERIAL PRIMARY KEY,  
    student\_number VARCHAR(20) UNIQUE NOT NULL,  
    first\_name VARCHAR(50) NOT NULL,  
    last\_name VARCHAR(50) NOT NULL,  
    email VARCHAR(100) UNIQUE NOT NULL,  
    classification VARCHAR(15) NOT NULL CHECK (classification IN ('Freshman', 'Sophomore', 'Junior', 'Senior')),  
    major VARCHAR(100),  
    gpa DECIMAL(3,2),  
    enrollment\_status VARCHAR(20) DEFAULT 'Active',  
    admission\_date DATE NOT NULL  
);CREATE TABLE courses (  
    course\_id VARCHAR(10) PRIMARY KEY,  
    discipline VARCHAR(50) NOT NULL,  
    course\_number VARCHAR(10) NOT NULL  
);CREATE TABLE instructors (  
    instructor\_id VARCHAR(10) PRIMARY KEY,  
    first\_name VARCHAR(50) NOT NULL,  
    last\_name VARCHAR(50) NOT NULL,  
    department VARCHAR(50) NOT NULL,  
    email VARCHAR(100) UNIQUE NOT NULL,  
    degree\_institute VARCHAR(100),  
    degree\_type VARCHAR(20)  
);CREATE TABLE sections (  
    section\_id VARCHAR(20) PRIMARY KEY,  
    course\_id VARCHAR(10) NOT NULL,  
    semester VARCHAR(20) NOT NULL,  
    section\_number VARCHAR(3) NOT NULL,  
    instructor\_id VARCHAR(10) NOT NULL,  
    FOREIGN KEY (course\_id) REFERENCES courses(course\_id),  
    FOREIGN KEY (instructor\_id) REFERENCES instructors(instructor\_id)  
);CREATE TABLE roster (  
    roster\_id SERIAL PRIMARY KEY,  
    student\_id INT NOT NULL,  
    section\_id VARCHAR(20) NOT NULL,  
    enrollment\_date DATE DEFAULT CURRENT\_DATE,  
    grade VARCHAR(2),  
    FOREIGN KEY (student\_id) REFERENCES undergraduate\_students(student\_id),  
    FOREIGN KEY (section\_id) REFERENCES sections(section\_id),  
    UNIQUE (student\_id, section\_id)  
);-----studentsINSERT INTO undergraduate\_students (student\_number, first\_name, last\_name, email, classification, major, gpa, admission\_date) VALUES  
('UG2025001', 'Alice', 'Brown', '[alice.brown@university.edu](mailto:alice.brown@university.edu)', 'Freshman', 'Computer Science', 3.85, '2024-08-15'),  
('UG2025002', 'Bob', 'Clark', '[bob.clark@university.edu](mailto:bob.clark@university.edu)', 'Sophomore', 'Biology', 3.65, '2023-08-20'),  
('UG2025003', 'Carol', 'Davis', '[carol.davis@university.edu](mailto:carol.davis@university.edu)', 'Junior', 'Business', 3.45, '2022-08-18'),  
('UG2025004', 'Dan', 'Evans', '[dan.evans@university.edu](mailto:dan.evans@university.edu)', 'Senior', 'Engineering', 3.78, '2021-08-25'),  
('UG2025005', 'Eve', 'Frank', '[eve.frank@university.edu](mailto:eve.frank@university.edu)', 'Freshman', 'Mathematics', 3.91, '2024-08-28');-----coursesINSERT INTO courses (course\_id, discipline, course\_number) VALUES  
('CS105', 'Computer Science', '105'),  
('BIO150', 'Biology', '150'),  
('BUS220', 'Business', '220'),  
('ENG300', 'Engineering', '300'),  
('MATH200', 'Mathematics', '200');-----instructorsINSERT INTO instructors (instructor\_id, first\_name, last\_name, department, email, degree\_institute, degree\_type) VALUES  
('INST100', 'Grace', 'Hopper', 'Computer Science', '[grace.hopper@university.edu](mailto:grace.hopper@university.edu)', 'Yale University', 'PhD'),  
('INST101', 'Alan', 'Turing', 'Mathematics', '[alan.turing@university.edu](mailto:alan.turing@university.edu)', 'Princeton', 'PhD'),  
('INST102', 'Ada', 'Lovelace', 'Engineering', '[ada.lovelace@university.edu](mailto:ada.lovelace@university.edu)', 'University of London', 'PhD'),  
('INST103', 'Marie', 'Curie', 'Biology', '[marie.curie@university.edu](mailto:marie.curie@university.edu)', 'Sorbonne University', 'PhD'),  
('INST104', 'Elon', 'Musk', 'Business', '[elon.musk@university.edu](mailto:elon.musk@university.edu)', 'Wharton School', 'MBA');------sectionsINSERT INTO sections (section\_id, course\_id, semester, section\_number, instructor\_id) VALUES  
('CS105-001', 'CS105', 'Fall 2024', '001', 'INST100'),  
('BIO150-001', 'BIO150', 'Fall 2024', '001', 'INST103'),  
('BUS220-001', 'BUS220', 'Fall 2024', '001', 'INST104'),  
('ENG300-001', 'ENG300', 'Fall 2024', '001', 'INST102'),  
('MATH200-001', 'MATH200', 'Fall 2024', '001', 'INST101');-----rosterINSERT INTO roster (student\_id, section\_id, enrollment\_date, grade) VALUES  
(1, 'CS105-001', '2024-08-16', 'A'),  
(2, 'BIO150-001', '2024-08-18', 'B+'),  
(3, 'BUS220-001', '2024-08-20', 'A-'),  
(4, 'ENG300-001', '2024-08-22', 'B'),  
(5, 'MATH200-001', '2024-08-24', 'A');