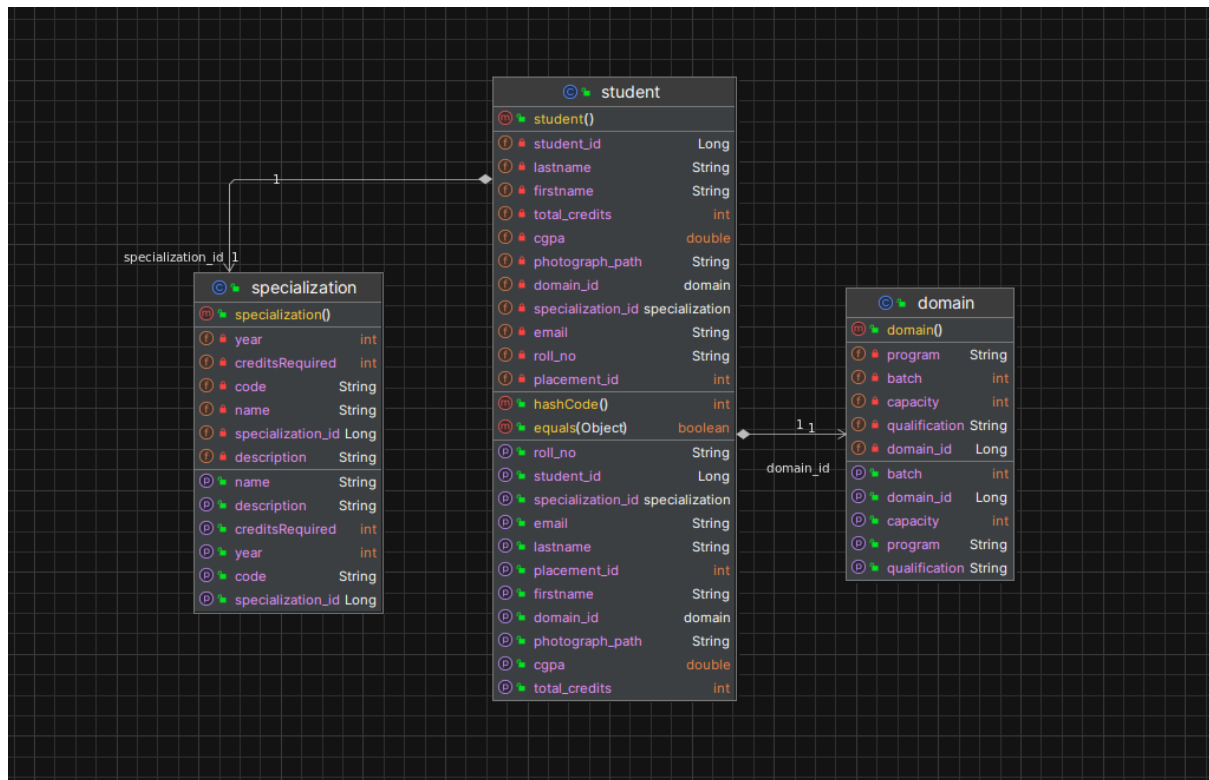
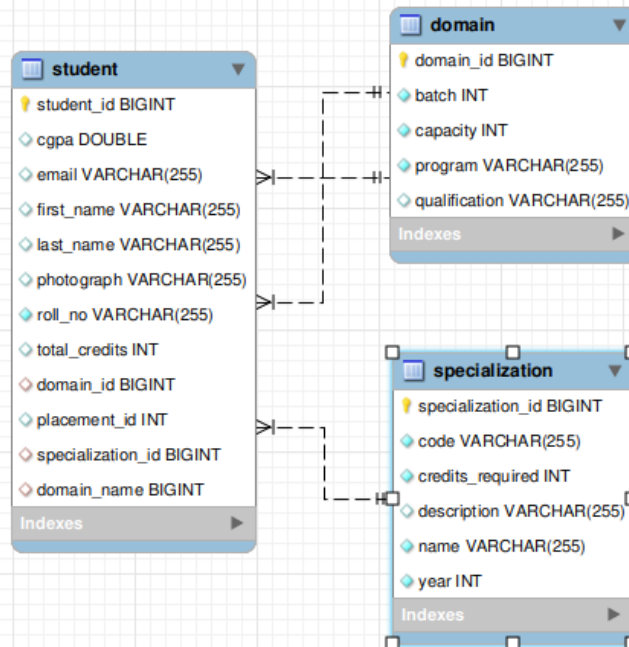


Name : Aryan Patel
Roll No : MT2023009

CLASS DIAGRAM:



ORM:



SQL SCRIPTS:

1. Table Creation

1. STUDENT

```
CREATE TABLE student (  
    student_id BIGINT PRIMARY KEY AUTO_INCREMENT,  
    roll_no VARCHAR(255) UNIQUE NOT NULL,  
    first_name VARCHAR(255),  
    last_name VARCHAR(255),  
    email VARCHAR(255),  
    photograph_path VARCHAR(255),  
    cgpa DOUBLE,  
    total_credits INT,  
    domain_id BIGINT,  
    specialization_id BIGINT,  
    placement_id INT,  
    FOREIGN KEY (domain_id) REFERENCES domain(domain_id),  
    FOREIGN KEY (specialization_id) REFERENCES specialization(specialization_id)  
);
```

2. DOMAIN

```
CREATE TABLE domain (  
    domain_id BIGINT PRIMARY KEY AUTO_INCREMENT,  
    program VARCHAR(255) NOT NULL,  
    batch INT NOT NULL,  
    capacity INT NOT NULL,  
    qualification VARCHAR(255)  
);
```

3. SPECIALIZATION

```
CREATE TABLE specialization (  
    specialization_id BIGINT PRIMARY KEY AUTO_INCREMENT,  
    code VARCHAR(255) UNIQUE NOT NULL,  
    name VARCHAR(255) NOT NULL,  
    description VARCHAR(255),  
    year INT NOT NULL,  
    credits_required INT NOT NULL  
);
```

2. Insertion

1. STUDENT

```
INSERT INTO student (roll_no, first_name, last_name, email, photograph_path, cgpa,  
total_credits, domain_id, specialization_id, placement_id)  
VALUES  
( 'MT2023009', 'Harsh', 'Singhal', 'harsh.life@gmail.com', '/photos/harsh.jpg', 4, 12, 1, 1, 1);
```

2. DOMAIN

```
INSERT INTO domain (program, batch, capacity, qualification)  
VALUES  
( 'M.Tech CSE', 2022, 150, 'B.Tech CSE/IT and GATE qualified');
```

3. SPECIALIZATION

```
INSERT INTO specialization (code, name, description, year, credits_required)  
VALUES  
( 'CS-100', 'ALGO', 'ALGORITHMS CONCEPTS', 2022, 4);
```

3. Update

1. UPDATE student SET first_name = 'NewFirstName', last_name = 'NewLastName'
WHERE student_id = 1;