

-- Enum type for User roles

```
CREATE TYPE user_role AS ENUM ('ADMIN', 'PATRON');
```

-- Users Table

```
CREATE TABLE users (  
    id SERIAL PRIMARY KEY,  
    name VARCHAR(255) NOT NULL,  
    email VARCHAR(255) UNIQUE NOT NULL,  
    password VARCHAR(255) NOT NULL,  
    role user_role NOT NULL  
);
```

-- Staff Table inheriting from Users

```
CREATE TABLE staffs (  
    id INT PRIMARY KEY REFERENCES users(id),  
    position VARCHAR(255),  
    salary NUMERIC(10, 2)  
);
```

-- Books Table

```
CREATE TABLE books (  
    id SERIAL PRIMARY KEY,  
    title VARCHAR(255) NOT NULL,  
    author VARCHAR(255) NOT NULL,  
    isbn VARCHAR(13) UNIQUE NOT NULL,  
    copies_available INT DEFAULT 0,  
    CONSTRAINT title_author_idx UNIQUE (title, author)  
);
```

-- Indexes for books

CREATE INDEX title\_idx ON books (title);

CREATE INDEX author\_idx ON books (author);

-- Borrowing History Table

```
CREATE TABLE borrowing_histories (  
    id SERIAL PRIMARY KEY,  
    user_id INT NOT NULL REFERENCES users(id) ON DELETE CASCADE,  
    book_id INT NOT NULL REFERENCES books(id) ON DELETE CASCADE,  
    borrow_date DATE NOT NULL,  
    return_date DATE,  
    CONSTRAINT user_book_idx UNIQUE (user_id, book_id, borrow_date)  
);
```

-- Indexes for Borrowing History

CREATE INDEX idx\_user\_id ON borrowing\_histories (user\_id);

CREATE INDEX idx\_book\_id ON borrowing\_histories (book\_id);