SEG 2120 – Database I

Course Project Report

University of Ottawa

Faculty of Engineering

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## Technologies Used

**Database Management System (DBMS)**

* **PostgreSQL** – used to design and implement the relational database schema, constraints, views, triggers, and data population.

**Backend**

* **Node.js + Express.js**
* **TypeScript** – strongly typed backend API development.
* **Prisma ORM** – used for managing database access and schema migrations.

**Frontend**

* **React.js (with Next.js framework)** – for building the user interface.
* **Tailwind CSS** – for styling and responsive design.
* **TypeScript**

Installation Steps

**1. Prerequisites**

* Node.js (v18+)
* PostgreSQL (v13+)
* npm (v9+) or yarn
* Git

**2. Clone the Project**

git clone https://github.com/your-username/ehotels.git

cd ehotels

**3. Run database script in PostgresSQL**

**4. Configure the Environment**

**Backend**

* cd backend
* npm install
* npm run dev

The back-end app will be served on http://localhost:**5000**

**Frontend**

* cd frontend
* npm install
* npm start

The front-end app will be served on http://localhost:**3000**

## Database DDLs

The full SQL Data Definition Language (DDL) for the e-Hotels project includes the following:

* HotelChain
* Hotel
* Room
* Customer
* Employee
* AddressInfo
* ContactInfo
* Booking
* Renting
* Transaction

## Table 1: Contents of the video

|  |  |
| --- | --- |
| **Requirement** | **Start timestamp** |
| 1 | 00:13 |
| 2 | 00:42 |
| 3 | 01:34 |
| 4 | 02:53 |
| 5 | 03:34 |
| 6 | 04:10 |
| 7 | 05:30 |
| 8 | 06:24 |
| 9 | 06:55 |