Project description

**Online Learning Feedback and Course Evaluation System**

This project is a structured **PostgreSQL database system** designed to manage and analyze student feedback in online learning environments. It provides institutions with actionable insights into course performance, instructor effectiveness, and learner satisfaction.

**Case Study Overview**

The database records key academic entities — students, courses, instructors, departments, and feedback — to support efficient data-driven decision-making.

**Core Tables**

* **Department** – Stores faculty information and contacts.
* **Instructor** – Contains instructor details and department associations.
* **Course** – Links instructors and departments with course offerings.
* **Student** – Holds student personal and academic information.
* **Feedback** – Captures student ratings and comments for courses.
* **EvaluationSummary** – Aggregates course ratings and responses.

**Relationships**

* Department → Instructor (1:N)
* Instructor → Course (1:N)
* Course → Feedback (1:N)
* Student → Feedback (1:N)
* Course → Evaluation Summary (1:1)

**Key Features & Tasks**

* Well-structured schema with **foreign keys** and **CASCADE DELETE** on Course → Feedback.
* Sample data with **5+ instructors** and **10+ students**.
* Query to calculate **average feedback ratings per course**.
* **Trigger** to automatically update evaluation summaries when new feedback is added.
* View showcasing **top-rated courses by department**.
  + Identify instructors with the **lowest-rated courses**.

**Use Case**

This system can be used in schools, universities, or online learning platforms to manage feedback efficiently and maintain data integrity. It also serves as an excellent **learning resource** for mastering SQL, triggers, foreign keys, and database design.