**1. Overview**

The Pricing Calculator is a web application designed to allow companies to manage their pricing tools efficiently. Companies can sign up, log in, and create multiple pricing tools, each composed of sections and components with different pricing mechanisms.

**2. System Architecture**

* **Frontend**: (Optional) Can be built using React, Vue, or any framework interacting with Flask APIs.
* **Backend**: Flask (Python) with RESTful APIs.
* **Database**: PostgreSQL/MySQL with SQLAlchemy ORM.
* **Deployment**: Dockerized application hosted on AWS/GCP/Heroku.

**3. Database Schema**

* **Users** (id, name, email, password, company\_id)
* **Companies** (id, name, profile\_details)
* **Pricing Tools** (id, company\_id, name, version)
* **Sections** (id, pricing\_tool\_id, name)
* **Components** (id, section\_id, type, variant, pricing\_mechanism)

**4. API Endpoints**

* **Authentication**: /api/auth/signup, /api/auth/login
* **Company Management**: /api/companies/{id} (CRUD operations)
* **Pricing Tools**: /api/tools/ (Create, Read, Update, Delete tools)
* **Sections & Components**: /api/tools/{id}/sections & /api/tools/{id}/components

**5. Deployment & Future Enhancements**

* CI/CD pipeline with GitHub Actions.
* JWT-based authentication for security.
* Future additions: Multi-tier pricing, AI-based pricing recommendations.

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