Postgres DB

You are given a JSON dataset of medicines. Your task is to design and implement a **search system** using PostgreSQL that supports:

- **Prefix search** (e.g., typing `Ava` should return `Avastin`)
- **Substring search** (e.g., `Injection` should match all injection medicines)
- **Full-text search** (e.g., `antibiotic` should match relevant medicines)
- **Fuzzy Search** (typo-tolerant search)Example: typing `"Avastn"` (typo) should still return `"Avastin"`.

The challenge tests your ability to design the schema, indexes, and queries efficiently while also building a benchmark to evaluate performance.

Dataset

Download from this link.

https://drive.google.com/file/d/11aYU10aRSrf1PWR8wOfrE1EoScSz_d54/view?usp=sharing

You will be provided with a JSON dump of medicines (sample included).
Each record contains fields like:

- `id`, `sku_id`, `name`
- `manufacturer_name`, `marketer_name`
- `type`, `price`, `pack_size_label`
- `short_composition`
- `is_discontinued`, `available`

Deliverables

Each participant/team must submit a **GitHub repository** containing:

1. **Schema & Setup**
    - SQL schema (`schema.sql`) with indexes
    - Data import script (`import_data.py` or SQL COPY command)

2. **Search API**
    - Implement a simple REST API (FastAPI) with endpoints:
        - `/search/prefix?q=...`

        - `/search/substring?q=...`
        - `/search/fulltext?q=...`
        - `/search/fussy?q=...`

3. **Benchmark Report (`benchmark.md`)**
    - Document query performance (latency, throughput, indexes used).
    - Use the **fixed query set** below for benchmarking.

4. **Run Instructions**

    - `README.md` with clear steps.
    - Detailed description on what approach was used in order to achieve the performance.

Evaluation Plan

Each submission must upload a file named `submission.json` by running the script to evaluate benchmark_queries.json in the following format

`submission.json`

```
{
  "results":
        {
           "1": ["Avastin", "Avastin Injection"],
           "2": ["Paracetamol"],
           "3": ["Clexane Injection", "Avastin Injection"],
           "4": ["Amoxicillin", "Azithromycin", "Ciprofloxacin"],
           "5": ["Ibuprofen", "Diclofenac", "Paracetamol"]
         }
}
```