Guide: Using Pelias with Docker

1. Install Docker and Docker Compose

You need Docker and Docker Compose installed on your system.

For Ubuntu/Linux:

```
sudo apt update
sudo apt install docker.io
sudo apt install docker-compose
sudo systemctl start docker
sudo systemctl enable docker
```

For macOS/Windows:

Download and install **Docker Desktop** from https://www.docker.com/products/docker-desktop. It includes Docker Compose.

2. Clone the Pelias Docker Repository

```
git clone https://github.com/pelias/docker
cd docker
```

3. Set Up Pelias Configuration

1. Copy the default configuration file:

   ```
   cp pelias.json.example pelias.json
   ```

2. Edit `pelias.json` to customize your setup.

4. Download Data

Download geospatial data (e.g., OpenStreetMap):

```
mkdir -p data/openstreetmap
wget -O data/openstreetmap/region.osm.pbf https://download.geofabrik.de/your-region.osm.pbf
```

5. Run Pelias Services

1. Build and start services:

```
docker-compose up
```

2. Run in detached mode:

```
docker-compose up -d
```

6. Check Running Services

1. List running containers:

```
docker ps
```

2. Check service logs:

```
docker-compose logs
```

7. Import Data

1. Run the OpenStreetMap importer:

```
docker-compose run import-openstreetmap
```

2. Import other datasets (e.g., OpenAddresses):

```
docker-compose run import-openaddresses
```

3. Build the geographic hierarchy:

```
docker-compose run prepare-all
```

8. Test Pelias API

1. Test forward geocoding:

```
curl "http://localhost:4000/v1/search?text=1600
   Pennsylvania Ave NW, Washington, DC"
```

2. Test reverse geocoding:

```
curl "http://localhost:4000/v1/reverse?point.lat
   =38.8977&point.lon=-77.0365"
```

9. Stop Services

To stop running services:

```
docker-compose down
```

Additional Tips

- **Restart Services:** Restart after changes:

  ```
  docker-compose restart
  ```

- **Clean Elasticsearch:** Reset data:

  ```
  docker-compose down -v
  ```

- **Update Docker Images:** Keep Pelias up to date:

  ```
  docker-compose pull
  ```