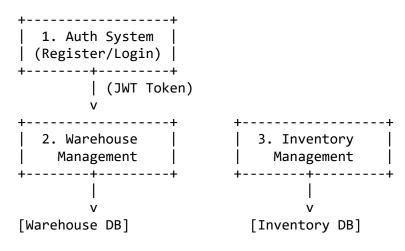
```
Level 0 DFD (Context Diagram)
```

Level 1 DFD (Decomposed Processes)



Detailed Flow (Level 2 DFD)

## 1. Authentication Flow

```
Shop User → (POST /register) → [Shop DB] → JWT Token Shop User → (POST /login) → [Shop DB] → JWT Token Shop User → (GET /profile) → [Shop DB] → Return Profile
```

## 2. Warehouse Management

```
Shop User → (POST /warehouses) → Create Warehouse → [Warehouse DB]
Shop User → (GET /warehouses) → Fetch Warehouses → [Warehouse DB]
Shop User → (DELETE /warehouses/:id) → Remove → [Warehouse DB]
```

## 3. Inventory Management

```
Shop User \rightarrow (POST /inventory) \rightarrow Add Product \rightarrow [Inventory DB] \leftrightarrow [Warehouse DB] Shop User \rightarrow (PUT /inventory/:id) \rightarrow Update Qty \rightarrow [Inventory DB] Shop User \rightarrow (DELETE /inventory/:id) \rightarrow Remove \rightarrow [Inventory DB] Shop User \rightarrow (GET /inventory) \rightarrow List Products \rightarrow [Inventory DB] Shop User \rightarrow (PATCH /inventory/update-quantities) \rightarrow Bulk Update \rightarrow [Inventory DB]
```