

# ERD Schema Sistem Inventory Walet

```
Project walet_inventory {  
  database_type: "PostgreSQL"  
  Note: 'ERD importable schema for lot-based traceable walet inventory system'  
}
```

```
Table suppliers {  
  id bigint [pk, increment]  
  code varchar [not null, unique]  
  name varchar [not null]  
  phone varchar  
  email varchar  
  bank_name varchar  
  bank_account_number varchar  
  address text  
  status varchar [not null, default: 'ACTIVE']  
  created_at timestamp [not null]  
  updated_at timestamp [not null]  
}
```

```
Table customers {  
  id bigint [pk, increment]  
  code varchar [not null, unique]  
  name varchar [not null]  
  phone varchar  
  email varchar  
  bank_name varchar  
  bank_account_number varchar  
  address text  
  status varchar [not null, default: 'ACTIVE']  
  created_at timestamp [not null]  
  updated_at timestamp [not null]  
}
```

```
Table roles {  
  id bigint [pk, increment]  
  code varchar [not null, unique]  
  name varchar [not null]  
  created_at timestamp [not null]  
  updated_at timestamp [not null]  
}
```

```
Table users {  
  id bigint [pk, increment]  
  role_id bigint [not null]  
  name varchar [not null]  
  email varchar  
  phone varchar  
  status varchar [not null, default: 'ACTIVE']  
  created_at timestamp [not null]
```

```
    updated_at timestamp [not null]
}
```

```
Table units {
    id bigint [pk, increment]
    code varchar [not null, unique]
    name varchar [not null]
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table item_types {
    id bigint [pk, increment]
    code varchar [not null, unique]
    name varchar [not null]
    description text
    status varchar [not null, default: 'ACTIVE']
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table item_grades {
    id bigint [pk, increment]
    code varchar [not null, unique]
    name varchar [not null]
    rank_order int
    description text
    status varchar [not null, default: 'ACTIVE']
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table warehouses {
    id bigint [pk, increment]
    code varchar [not null, unique]
    name varchar [not null]
    address text
    status varchar [not null, default: 'ACTIVE']
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table warehouse_locations {
    id bigint [pk, increment]
    warehouse_id bigint [not null]
    code varchar [not null]
    name varchar [not null]
    location_type varchar
    status varchar [not null, default: 'ACTIVE']
    created_at timestamp [not null]
    updated_at timestamp [not null]
```

```
indexes {
```

```
    (warehouse_id, code) [unique]
}
}
```

```
Table adjustment_reasons {
    id bigint [pk, increment]
    code varchar [not null, unique]
    name varchar [not null]
    category varchar [not null]
    status varchar [not null, default: 'ACTIVE']
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table purchases {
    id bigint [pk, increment]
    purchase_no varchar [not null, unique]
    supplier_id bigint [not null]
    purchase_date date [not null]
    supplier_invoice_no varchar
    status varchar [not null, default: 'DRAFT']
    notes text
    created_by bigint [not null]
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table purchase_lines {
    id bigint [pk, increment]
    purchase_id bigint [not null]
    item_type_id bigint [not null]
    item_grade_id bigint
    qty_ordered decimal(18,3) [not null]
    unit_id bigint [not null]
    unit_price decimal(18,2) [not null]
    subtotal decimal(18,2) [not null]
    classification_status varchar [not null, default: 'FINAL']
    notes text
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
Table receipts {
    id bigint [pk, increment]
    receipt_no varchar [not null, unique]
    purchase_id bigint [not null]
    supplier_id bigint [not null]
    receipt_date date [not null]
    status varchar [not null, default: 'DRAFT']
    notes text
    received_by bigint [not null]
    created_at timestamp [not null]
    updated_at timestamp [not null]
}
```

```
}
```

```
Table receipt_lines {  
  id bigint [pk, increment]  
  receipt_id bigint [not null]  
  purchase_line_id bigint [not null]  
  item_type_id bigint [not null]  
  item_grade_id bigint  
  qty_received decimal(18,3) [not null]  
  qty_accepted decimal(18,3) [not null]  
  qty_rejected decimal(18,3) [not null, default: 0]  
  unit_id bigint [not null]  
  unit_cost decimal(18,2) [not null]  
  notes text  
  created_at timestamp [not null]  
  updated_at timestamp [not null]  
}
```

```
Table inventory_lots {  
  id bigint [pk, increment]  
  lot_code varchar [not null, unique]  
  parent_lot_id bigint  
  source_type varchar [not null]  
  source_ref_id bigint  
  supplier_id bigint  
  purchase_id bigint  
  purchase_line_id bigint  
  receipt_id bigint  
  receipt_line_id bigint  
  item_type_id bigint [not null]  
  item_grade_id bigint [not null]  
  warehouse_id bigint [not null]  
  warehouse_location_id bigint  
  original_qty decimal(18,3) [not null]  
  available_qty decimal(18,3) [not null]  
  reserved_qty decimal(18,3) [not null, default: 0]  
  damaged_qty decimal(18,3) [not null, default: 0]  
  shrinkage_qty decimal(18,3) [not null, default: 0]  
  unit_id bigint [not null]  
  unit_cost decimal(18,2) [not null]  
  received_at timestamp [not null]  
  status varchar [not null, default: 'ACTIVE']  
  qr_code_value varchar  
  barcode_value varchar  
  notes text  
  created_at timestamp [not null]  
  updated_at timestamp [not null]  
  
  indexes {  
    (item_type_id, item_grade_id, warehouse_id)  
    (supplier_id, item_type_id, item_grade_id)  
  }  
}
```

```
Table sorting_sessions {
  id bigint [pk, increment]
  sorting_no varchar [not null, unique]
  source_lot_id bigint [not null]
  sorting_date timestamp [not null]
  input_qty decimal(18,3) [not null]
  output_qty decimal(18,3) [not null]
  shrinkage_qty decimal(18,3) [not null, default: 0]
  notes text
  sorted_by bigint [not null]
  created_at timestamp [not null]
  updated_at timestamp [not null]
}
```

```
Table sorting_results {
  id bigint [pk, increment]
  sorting_session_id bigint [not null]
  result_lot_id bigint [not null]
  item_type_id bigint [not null]
  item_grade_id bigint [not null]
  qty_result decimal(18,3) [not null]
  unit_cost decimal(18,2) [not null]
  notes text
  created_at timestamp [not null]
  updated_at timestamp [not null]
}
```

```
Table sales {
  id bigint [pk, increment]
  sales_no varchar [not null, unique]
  customer_id bigint [not null]
  sales_date date [not null]
  status varchar [not null, default: 'DRAFT']
  notes text
  created_by bigint [not null]
  created_at timestamp [not null]
  updated_at timestamp [not null]
}
```

```
Table sales_lines {
  id bigint [pk, increment]
  sales_id bigint [not null]
  item_type_id bigint [not null]
  item_grade_id bigint [not null]
  qty_sold decimal(18,3) [not null]
  unit_id bigint [not null]
  selling_price decimal(18,2) [not null]
  subtotal decimal(18,2) [not null]
  costing_total decimal(18,2) [not null, default: 0]
  gross_margin decimal(18,2) [not null, default: 0]
  notes text
  created_at timestamp [not null]
```

```
    updated_at timestamp [not null]
}
```

```
Table sales_allocations {
  id bigint [pk, increment]
  sales_line_id bigint [not null]
  inventory_lot_id bigint [not null]
  qty_allocated decimal(18,3) [not null]
  unit_cost decimal(18,2) [not null]
  total_cost decimal(18,2) [not null]
  allocated_at timestamp [not null]
  allocated_by bigint [not null]
  created_at timestamp [not null]
  updated_at timestamp [not null]
}
```

```
Table inventory_movements {
  id bigint [pk, increment]
  movement_no varchar [not null, unique]
  movement_type varchar [not null]
  inventory_lot_id bigint [not null]
  related_lot_id bigint
  warehouse_id bigint [not null]
  warehouse_location_id bigint
  qty_in decimal(18,3) [not null, default: 0]
  qty_out decimal(18,3) [not null, default: 0]
  balance_after decimal(18,3) [not null]
  unit_cost decimal(18,2) [not null]
  reference_type varchar [not null]
  reference_id bigint [not null]
  reason_id bigint
  movement_date timestamp [not null]
  created_by bigint [not null]
  notes text
  created_at timestamp [not null]
  updated_at timestamp [not null]
}
```

```
Table sales_returns {
  id bigint [pk, increment]
  sales_id bigint [not null]
  customer_id bigint [not null]
  return_date date [not null]
  status varchar [not null, default: 'DRAFT']
  notes text
  created_at timestamp [not null]
  updated_at timestamp [not null]
}
```

```
Table sales_return_lines {
  id bigint [pk, increment]
  sales_return_id bigint [not null]
  sales_line_id bigint [not null]
```

```

inventory_lot_id bigint
item_type_id bigint [not null]
item_grade_id bigint [not null]
qty_returned decimal(18,3) [not null]
return_condition varchar
resolution varchar
notes text
created_at timestamp [not null]
updated_at timestamp [not null]
}

```

```

Table purchase_returns {
  id bigint [pk, increment]
  purchase_id bigint [not null]
  supplier_id bigint [not null]
  return_date date [not null]
  status varchar [not null, default: 'DRAFT']
  notes text
  created_at timestamp [not null]
  updated_at timestamp [not null]
}

```

```

Table purchase_return_lines {
  id bigint [pk, increment]
  purchase_return_id bigint [not null]
  inventory_lot_id bigint [not null]
  qty_returned decimal(18,3) [not null]
  unit_cost decimal(18,2) [not null]
  notes text
  created_at timestamp [not null]
  updated_at timestamp [not null]
}

```

```

Table stock_adjustments {
  id bigint [pk, increment]
  adjustment_no varchar [not null, unique]
  inventory_lot_id bigint [not null]
  adjustment_type varchar [not null]
  reason_id bigint [not null]
  qty_before decimal(18,3) [not null]
  qty_change decimal(18,3) [not null]
  qty_after decimal(18,3) [not null]
  cost_impact decimal(18,2) [not null, default: 0]
  adjustment_date timestamp [not null]
  notes text
  created_by bigint [not null]
  created_at timestamp [not null]
  updated_at timestamp [not null]
}

```

```

Table lot_labels {
  id bigint [pk, increment]
  inventory_lot_id bigint [not null]

```

```

label_type varchar [not null]
label_value varchar [not null]
printed_at timestamp
printed_by bigint
print_count int [not null, default: 0]
status varchar [not null, default: 'ACTIVE']
created_at timestamp [not null]
updated_at timestamp [not null]
}

```

```

Ref: users.role_id > roles.id
Ref: warehouse_locations.warehouse_id > warehouses.id
Ref: purchases.supplier_id > suppliers.id
Ref: purchases.created_by > users.id
Ref: purchase_lines.purchase_id > purchases.id
Ref: purchase_lines.item_type_id > item_types.id
Ref: purchase_lines.item_grade_id > item_grades.id
Ref: purchase_lines.unit_id > units.id
Ref: receipts.purchase_id > purchases.id
Ref: receipts.supplier_id > suppliers.id
Ref: receipts.received_by > users.id
Ref: receipt_lines.receipt_id > receipts.id
Ref: receipt_lines.purchase_line_id > purchase_lines.id
Ref: receipt_lines.item_type_id > item_types.id
Ref: receipt_lines.item_grade_id > item_grades.id
Ref: receipt_lines.unit_id > units.id
Ref: inventory_lots.parent_lot_id > inventory_lots.id
Ref: inventory_lots.supplier_id > suppliers.id
Ref: inventory_lots.purchase_id > purchases.id
Ref: inventory_lots.purchase_line_id > purchase_lines.id
Ref: inventory_lots.receipt_id > receipts.id
Ref: inventory_lots.receipt_line_id > receipt_lines.id
Ref: inventory_lots.item_type_id > item_types.id
Ref: inventory_lots.item_grade_id > item_grades.id
Ref: inventory_lots.warehouse_id > warehouses.id
Ref: inventory_lots.warehouse_location_id > warehouse_locations.id
Ref: inventory_lots.unit_id > units.id
Ref: sorting_sessions.source_lot_id > inventory_lots.id
Ref: sorting_sessions.sorted_by > users.id
Ref: sorting_results.sorting_session_id > sorting_sessions.id
Ref: sorting_results.result_lot_id > inventory_lots.id
Ref: sorting_results.item_type_id > item_types.id
Ref: sorting_results.item_grade_id > item_grades.id
Ref: sales.customer_id > customers.id
Ref: sales.created_by > users.id
Ref: sales_lines.sales_id > sales.id
Ref: sales_lines.item_type_id > item_types.id
Ref: sales_lines.item_grade_id > item_grades.id
Ref: sales_lines.unit_id > units.id
Ref: sales_allocations.sales_line_id > sales_lines.id
Ref: sales_allocations.inventory_lot_id > inventory_lots.id
Ref: sales_allocations.allocated_by > users.id
Ref: inventory_movements.inventory_lot_id > inventory_lots.id

```



Ref: inventory\_movements.related\_lot\_id > inventory\_lots.id  
Ref: inventory\_movements.warehouse\_id > warehouses.id  
Ref: inventory\_movements.warehouse\_location\_id > warehouse\_locations.id  
Ref: inventory\_movements.reason\_id > adjustment\_reasons.id  
Ref: inventory\_movements.created\_by > users.id  
Ref: sales\_returns.sales\_id > sales.id  
Ref: sales\_returns.customer\_id > customers.id  
Ref: sales\_return\_lines.sales\_return\_id > sales\_returns.id  
Ref: sales\_return\_lines.sales\_line\_id > sales\_lines.id  
Ref: sales\_return\_lines.inventory\_lot\_id > inventory\_lots.id  
Ref: sales\_return\_lines.item\_type\_id > item\_types.id  
Ref: sales\_return\_lines.item\_grade\_id > item\_grades.id  
Ref: purchase\_returns.purchase\_id > purchases.id  
Ref: purchase\_returns.supplier\_id > suppliers.id  
Ref: purchase\_return\_lines.purchase\_return\_id > purchase\_returns.id  
Ref: purchase\_return\_lines.inventory\_lot\_id > inventory\_lots.id  
Ref: stock\_adjustments.inventory\_lot\_id > inventory\_lots.id  
Ref: stock\_adjustments.reason\_id > adjustment\_reasons.id  
Ref: stock\_adjustments.created\_by > users.id  
Ref: lot\_labels.inventory\_lot\_id > inventory\_lots.id  
Ref: lot\_labels.printed\_by > users.id