# 数据字典

## 采购管理

### suppliers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| supplier\_id | INT | 主键, 自增 | 供应商唯一标识符 | 1, 2, 3, ... |
| name | VARCHAR(255) | NOT NULL | 供应商名称 | "abc公司", "xyz供应商" |
| contact\_info | VARCHAR(255) |  | 联系信息（电话、邮箱等） | "123-456-7890", "info@abc.com" |
| address | TEXT |  | 供应商地址 | "北京市朝阳区XX路1号" |
| bank\_details | TEXT |  | 银行详情（用于支付） | "银行名称: 工商银行, 账号: 1234567890" |
| credit\_rating | ENUM("a", "b", "c", "d") | NOT NULL | 信用评级 | "a", "b", "c", "d" |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### purchase\_orders

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| purchase\_order\_id | INT | 主键, 自增 | 采购订单唯一标识符 | 1, 2, 3, ... |
| supplier\_id | INT | 外键, 关联到suppliers | 供应商标识符 | 1, 2, 3, ... |
| order\_date | DATE | NOT NULL | 订单创建日期 | "2024-01-01" |
| delivery\_date | DATE |  | 预计交货日期 | "2024-01-15" |
| status | ENUM("已创建", "已确认", "已发货", "已接收", "已完成") | NOT NULL | 订单状态 | "已创建", "已确认" |
| total\_amount | DECIMAL(10, 2) | NOT NULL | 订单总金额 | 1234.56, 7890.12 |
| created\_by | INT |  | 创建人标识符 | 1, 2, 3, ... |
| approved\_by | INT |  | 审批人标识符 | 1, 2, 3, ... |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### purchase\_order\_items

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| purchase\_order\_item\_id | INT | 主键, 自增 | 采购订单项唯一标识符 | 1, 2, 3, ... |
| purchase\_order\_id | INT | 外键, 关联到purchase\_orders | 采购订单标识符 | 1, 2, 3, ... |
| product\_id | INT | 外键, 关联到products | 产品标识符 | 1, 2, 3, ... |
| quantity | INT | NOT NULL | 数量 | 10, 50, 100 |
| unit\_price | DECIMAL(10, 2) | NOT NULL | 单价 | 12.34, 56.78 |
| discount | DECIMAL(5, 2) | DEFAULT 0.00 | 折扣 | 0.00, 5.00, 10.00 |
| tax | DECIMAL(5, 2) | DEFAULT 0.00 | 税额 | 0.00, 5.00, 10.00 |
| sub\_total | DECIMAL(10, 2) | NOT NULL | 小计 | 123.45, 678.90 |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

## 库存管理

### products

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| product\_id | INT | 主键, 自增 | 产品唯一标识符 | 1, 2, 3, ... |
| sku | VARCHAR(50) | UNIQUE, NOT NULL | 库存保有单位 | "sku123", "sku456" |
| name | VARCHAR(255) | NOT NULL | 产品名称 | "产品a", "产品b" |
| description | TEXT |  | 产品描述 | "这是一个很好的产品" |
| category | VARCHAR(100) | NOT NULL | 产品类别 | "电子产品", "办公用品" |
| unit\_of\_measure | VARCHAR(50) | NOT NULL | 计量单位 | "件", "箱", "公斤" |
| reorder\_level | INT | DEFAULT 0 | 再订购水平 | 10, 50, 100 |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### inventory\_transactions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| transaction\_id | INT | 主键, 自增 | 交易唯一标识符 | 1, 2, 3, ... |
| product\_id | INT | 外键, 关联到products | 产品标识符 | 1, 2, 3, ... |
| transaction\_type | ENUM("入库", "出库", "调整") | NOT NULL | 交易类型 | "入库", "出库", "调整" |
| quantity | INT | NOT NULL | 数量 | 10, 50, 100 |
| price | DECIMAL(10, 2) | NOT NULL | 单价 | 12.34, 56.78 |
| transaction\_date | DATE | NOT NULL | 交易日期 | "2024-01-01" |
| reference | VARCHAR(255) |  | 关联参考（如purchase\_order\_id或sales\_order\_id） | "PO123", "SO456" |
| created\_by | INT |  | 创建人标识符 | 1, 2, 3, ... |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### inventory\_snapshots

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| snapshot\_id | INT | 主键, 自增 | 快照唯一标识符 | 1, 2, 3, ... |
| product\_id | INT | 外键, 关联到products | 产品标识符 | 1, 2, 3, ... |
| available\_quantity | INT | NOT NULL | 可用数量 | 10, 50, 100 |
| snapshot\_date | DATE | NOT NULL | 快照日期 | "2024-01-01" |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |

## 销售管理

### customers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| customer\_id | INT | 主键, 自增 | 客户唯一标识符 | 1, 2, 3, ... |
| name | VARCHAR(255) | NOT NULL | 客户名称 | "张三", "李四" |
| contact\_info | VARCHAR(255) |  | 联系信息（电话、邮箱等） | "123-456-7890", "info@customer.com" |
| address | TEXT |  | 客户地址 | "上海市浦东新区XX路1号" |
| preferred\_payment\_method | VARCHAR(100) | NOT NULL | 偏好的支付方式 | "信用卡", "支付宝" |
| credit\_limit | DECIMAL(10, 2) | DEFAULT 0.00 | 信用限额 | 1000.00, 5000.00 |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### sales\_orders

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| sales\_order\_id | INT | 主键, 自增 | 销售订单唯一标识符 | 1, 2, 3, ... |
| customer\_id | INT | 外键, 关联到customers | 客户标识符 | 1, 2, 3, ... |
| order\_date | DATE | NOT NULL | 订单创建日期 | "2024-01-01" |
| required\_date | DATE |  | 需求日期 | "2024-01-15" |
| shipped\_date | DATE |  | 发货日期 | "2024-01-10" |
| status | ENUM("处理中", "已发货", "已完成", "已取消") | NOT NULL | 订单状态 | "处理中", "已发货" |
| total\_amount | DECIMAL(10, 2) | NOT NULL | 订单总金额 | 1234.56, 7890.12 |
| created\_by | INT |  | 创建人标识符 | 1, 2, 3, ... |
| approved\_by | INT |  | 审批人标识符 | 1, 2, 3, ... |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### sales\_order\_items

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| sales\_order\_item\_id | INT | 主键, 自增 | 销售订单项唯一标识符 | 1, 2, 3, ... |
| sales\_order\_id | INT | 外键, 关联到sales\_orders | 销售订单标识符 | 1, 2, 3, ... |
| product\_id | INT | 外键, 关联到products | 产品标识符 | 1, 2, 3, ... |
| quantity | INT | NOT NULL | 数量 | 10, 50, 100 |
| unit\_price | DECIMAL(10, 2) | NOT NULL | 单价 | 12.34, 56.78 |
| discount | DECIMAL(5, 2) | DEFAULT 0.00 | 折扣 | 0.00, 5.00, 10.00 |
| tax | DECIMAL(5, 2) | DEFAULT 0.00 | 税额 | 0.00, 5.00, 10.00 |
| sub\_total | DECIMAL(10, 2) | NOT NULL | 小计 | 123.45, 678.90 |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |

### shipments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名** | **数据类型** | **格式/约束** | **描述** | **范例值** |
| shipment\_id | INT | 主键, 自增 | 发货唯一标识符 | 1, 2, 3, ... |
| sales\_order\_id | INT | 外键, 关联到sales\_orders | 销售订单标识符 | 1, 2, 3, ... |
| shipment\_date | DATE | NOT NULL | 发货日期 | "2024-01-10" |
| carrier | VARCHAR(255) | NOT NULL | 物流公司 | "顺丰快递", "圆通速递" |
| tracking\_number | VARCHAR(255) | UNIQUE, NOT NULL | 追踪号码 | "SF1234567890", "YTO9876543210" |
| shipping\_cost | DECIMAL(10, 2) | NOT NULL | 运费 | 12.34, 56.78 |
| created\_date | DATETIME | DEFAULT CURRENT\_TIMESTAMP | 创建日期 | "2024-01-01 10:00:00" |
| updated\_date | DATETIME | ON UPDATE CURRENT\_TIMESTAMP | 最后更新日期 | "2024-01-02 11:00:00" |