# Data Dictionary

## 

## Table: cash\_flow.cash\_flow

*Stores records of all financial cash flow transactions.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| cash\_flow\_id | integer | NO | PK | Unique identifier for each cash flow record. |
| transaction\_id | integer | NO | FK | References the related transaction in the `transaction` table. |
| description | varchar(100) | YES | - | Optional description or note about the cash flow entry. |
| partner\_id | uuid | YES | FK | References the partner related to the transaction. |
| total\_paid | numeric(10,2) | YES | - | Amount of money paid in the transaction. |
| payment\_date | date | YES | - | Date when the payment was made. |

## 

## Table: cash\_flow.transaction

*Stores metadata about different transaction events.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| transaction\_id | integer | NO | PK | Unique identifier for each transaction. |
| transaction\_type | varchar(100) | NO | - | Type of transaction (e.g., pago, pendente, pix). |
| owner\_name | varchar(100) | YES | - | Name of the account owner. |
| bank\_name | varchar(100) | YES | - | Name of the bank. |

## 

## 

## Table: customers.client

*Stores information about clients.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| client\_id | uuid | NO | PK | Unique identifier for each client. |
| client\_name | varchar(100) | NO | - | Full name of the client. |
| client\_tax\_id | varchar(14) | NO | - | Tax identification number (CPF/CNPJ). |
| client\_email | varchar(50) | YES | - | Client's email address. |
| client\_phone | varchar(12) | YES | - | Client's phone number. |
| user\_id | uuid | YES | FK | References the user who created the client record. |

## Table: customers.partner

*Stores information about partners.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| partner\_id | uuid | NO | PK | Unique identifier for each partner. |
| partner\_name | varchar(100) | NO | - | Full legal name of the partner. |
| office\_name | varchar(100) | NO | - | Name of the partner's office or company. |
| partner\_phone | varchar(12) | NO | - | Partner's phone number. |
| partner\_email | varchar(50) | NO | - | Partner's email address. |
| user\_id | uuid | YES | FK | Unique identifier for the system user |

### 

### 

## Table: customers.property

*Stores information about properties.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| property\_id | integer | NO | PK | Unique identifier for each property. |
| client\_id | uuid | NO | FK | References the client who owns the property. |
| state\_id | integer | NO | FK | References the state where the property is located. |
| property\_name | varchar(100) | NO | - | Name of the property. |
| city | varchar(100) | NO | - | City where the property is located. |
| registration | varchar(100) | YES | - | Official registration number of the property (Matricula). |
| postal\_code | varchar(8) | YES | - | Postal code of the property. |
| area | varchar(100) | YES | - | Area of the property (tarefa/hectares). |
| ccir | varchar(50) | YES | - | CCIR (Rural Property Registration Certificate) number. |
| itr\_nirf | varchar(9) | YES | - | ITR/NIRF registration number. |

## Table: document.crop\_protocol

*Maps crops to protocols.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| crop\_id | integer | NO | PK, FK | References crop in the crop table. |
| protocol\_id | varchar(9) | NO | PK | Identifier of the protocol. |

## Table: document.crop

*Stores information about crops.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| crop\_id | integer | NO | PK | Unique identifier for each crop. |
| crop\_name | varchar(50) | NO | - | Name of the crop. |
| nitrogen\_cover | integer | YES | - | Nitrogen applied as cover fertilizer. |
| nitrogen\_foundation | integer | NO | - | Nitrogen applied as foundation fertilizer. |
| phosphorus | jsonb | NO | - | Phosphorus requirement in JSON format. |
| potassium | jsonb | NO | - | Potassium requirement in JSON format. |
| min\_v | integer | NO | - | Minimum recommended value (V). |
| extra\_data | varchar(150) | YES | - | Optional extra data about the crop. |

## Table: document.fertilizer

*Stores fertilizer information.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| fertilizer\_id | integer | NO | PK | Unique identifier for each fertilizer. |
| nitrogen | integer | NO | - | Nitrogen index. |
| phosphorus | integer | NO | - | Phosphorus index. |
| potassium | integer | NO | - | Potassium index. |
| is\_available | boolean | NO | - | Indicates if fertilizer is available. |
| proportion | varchar(15) | YES | - | Fertilizer proportion details. |

### 

### 

## Table: document.protocol

*Stores protocol information.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| protocol\_id | varchar(9) | NO | PK | Unique protocol identifier. |
| cash\_flow\_id | integer | YES | FK | References cash flow record. |
| report\_id | uuid | YES | FK | References report associated with protocol. |
| client\_id | uuid | NO | FK | References client. |
| property\_id | integer | NO | FK | References property. |
| partner\_id | uuid | YES | FK | References partner. |
| catalog\_id | integer | NO | FK | References catalog entry. |
| entry\_date | date | NO | PK | Date of protocol entry. |
| report\_date | date | YES | - | Date of report. |
| is\_collected\_by\_client | boolean | NO | - | Indicates if the client collected the sample. |

## Table: document.report

Stores report information associated with protocols.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| report\_id | uuid | NO | PK | Unique report identifier. |
| protocol\_id | varchar(9) | NO | - | References the associated protocol. |
| results | jsonb[] | YES | - | Stores the results in JSONB array format. |

### 

## Table: employee.employee

Maps employee records.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| employee\_id | uuid | NO | PK | Unique identifier of the employee. |
| name | varchar(100) | NO | - | Full name of the employee. |
| user\_id | uuid | NO | FK | References the associated user account. |

## Table: inventory.chemical

Maps chemical inventory.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| chemical\_id | integer | NO | PK | Unique identifier of the chemical. |
| chemical\_name | varchar(50) | NO | - | Name of the chemical. |
| concentration | varchar(50) | NO | - | Concentration of the chemical. |
| quantity | numeric(10,2) | NO | - | Quantity of chemical in stock. |
| unit | varchar(15) | NO | - | Unit of measurement for quantity. |
| is\_police\_controlled | boolean | NO | - | Indicates if the chemical is controlled by police regulations. |
| is\_army\_controlled | boolean | NO | - | Indicates if the chemical is controlled by military regulations. |
| entry\_date | date | NO | - | Date when the chemical was added to inventory. |
| expire\_date | date | NO | - | Expiration date of the chemical. |

## Table: inventory.chemical\_hazard

Maps relationship between chemicals and hazards.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| chemical\_id | integer | NO | PK, FK | References to the chemical. |
| hazard\_id | integer | NO | PK, FK | References the hazard associated with the chemical. |

## Table: inventory.solution

Maps chemical solutions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| solutionid | integer | NO | PK | Unique identifier of the solution. |
| chemicalid | integer | NO | - | References the chemical used in the solution. |
| concentration | varchar(50) | NO | - | Concentration of the chemical in the solution. |
| concentrationunit | varchar(10) | YES | - | Unit of measurement for concentration. |
| quantity | numeric(10,2) | NO | - | Quantity of the solution in stock. |
| quantityunit | varchar(10) | YES | - | Unit of measurement for quantity. |
| entrydate | date | NO | - | Date when the solution was added to inventory. |
| expiredate | date | NO | - | Expiration date of the solution. |

## Table: inventory.hazard

Maps hazard types.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| hazard\_id | integer | NO | PK | Unique identifier of the hazard. |
| hazard\_class | character varying(5) | NO | - | Class or category code of the hazard. |
| hazard\_name | character varying(100) | NO | - | Name of the hazard. |

## Table: parameters.catalog

Maps catalog entries.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| catalog\_id | integer | NO | PK | Unique identifier of the catalog entry. |
| report\_type | varchar(100) | NO | - | Type of report associated with the catalog. |
| sample\_type | varchar(100) | NO | - | Type of sample for the catalog. |
| label\_name | varchar(100) | NO | - | Label for the catalog entry. |
| legends | jsonb[] | NO | - | Array of legends associated with the catalog entry. |
| price | numeric(10,2) | NO | - | Price of the catalog item. |

## Table: parameters.parameter

Maps parameters associated with each catalog entry.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| parameter\_id | integer | NO | PK | Unique identifier for the parameter. |
| catalog\_id | integer | NO | FK | References the associated catalog entry. |
| parameter\_name | varchar(80) | NO | - | Name of the parameter. |
| input\_quantity | integer | YES | - | Input quantity for the parameter. |
| unit | varchar(80) | YES | - | Unit of measurement for the parameter. |
| official\_doc | varchar(80) | YES | - | Reference to official documentation. |
| vmp | varchar(80) | YES | - | Maximum permitted value (VMP) of parameter. |
| equation | varchar(80) | YES | - | Equation used for calculating parameter value. |

## Table: users.auth

Stores authentication data for users.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| user\_id | uuid | NO | FK | References the user. |
| password\_salt | bytea | YES | - | Salt used in password hashing. |
| password\_hash | bytea | YES | - | Hashed password value. |

## Table: public.logs

Stores application log messages.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| message | text | YES | - | Log message content. |
| message\_template | text | YES | - | Template used for log message. |
| level | integer | YES | - | Severity level of the log. |
| time\_stamp | timestamp without time zone | YES | - | Timestamp when the log was recorded. |
| exception | text | YES | - | Exception details if any. |
| log\_event | jsonb | YES | - | Additional structured log data. |
| user\_name | text | YES | - | Name of the user responsible for the log. |
| thread\_id | text | YES | - | Thread identifier where the log occurred. |

## Table: users.user

Stores user information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| user\_id | uuid | NO | PK | Unique identifier for the user. |
| role\_id | integer | NO | FK | References the user's role. |
| partner\_id | uuid | YES | FK | References associated partner. |
| username | varchar(100) | NO | - | Username for login. |
| is\_active | boolean | YES | - | Indicates if the user is active. |

## Table: users.permission

Stores permissions assigned to roles.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| permission\_id | integer | NO | PK | Unique identifier for the permission. |
| role\_id | integer | NO | FK | References the role assigned. |
| protocol | boolean | YES | - | Permission for protocol module. |
| client | boolean | YES | - | Permission for client module. |
| property | boolean | YES | - | Permission for property module. |
| cash\_flow | boolean | YES | - | Permission for cash flow module. |
| partner | boolean | YES | - | Permission for partner module. |
| users | boolean | YES | - | Permission for users module. |
| chemical | boolean | YES | - | Permission for chemical module. |

## 

## Table: users.role

Stores user roles.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable?** | **Key** | **Column Description** |
| role\_id | integer | NO | PK | Unique identifier for the role. |
| role\_name | varchar(25) | NO |  | Name of the role. |

## Table: utils.state

Stores information about states.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column Name | Data Type | Nullable? | Key | Column Description |
| state\_id | integer | NO | PK | Unique identifier for the state. |
| state\_name | varchar(50) | NO | - | Full name of the state. |
| state\_code | varchar(2) | NO | - | Two-letter code of the state. |