Database Schema Summary

In PostgreSQL, a schema is a named collection of database objects, including tables, views, indexes, and data types. Schemas provide a way to organize and separate database objects into logical groups, making it easier to manage and maintain a complex database structure.

Within SQL queries, a table in a schema is referenced as `schema_name.table_name`. For example, the `Project` table in the `body` schema is referenced as `body.Project`.

This database consists of two schemas, body and veg, each containing several tables and enumeration types. Here's an overview of the tables and their purposes:

Schema: `body`

Table: `Project`

Stores information about projects. The `name` column represents the name of the project.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
name	VARCHAR(1000)	

Table: `Author`

Stores information about authors involved in projects. The `matrikel_nr` column represents the matriculation number of the author.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
given_name	VARCHAR(1000)	
family_name	VARCHAR(1000)	
matrikel_nr	VARCHAR(1000)	
project_id	INT	FOREIGN KEY (Project)

Table: `MeasurementResults`

Stores measurement results related to projects and persons. The `estimated_height` and `estimated_weight` columns represent the estimated height and weight, respectively.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
estimated_height	FLOAT	
estimated_weight	FLOAT	
project_id	INT	FOREIGN KEY (Project)

Column	Type	Constraints
person	INT	FOREIGN KEY (Person)

Table: `Person`

Stores information about persons. The `gender` column represents the gender of the individual.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
number	VARCHAR(1000)	
gender	VARCHAR(1000)	ENUM(gendertype)
age	FLOAT	
measured_weight	FLOAT	
measured_height	FLOAT	

Schema: `veg`

Table: `Project`

Stores information about vegetable projects. The `name` column represents the name of the project.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
name	VARCHAR(1000)	

Table: `Author`

Stores information about authors involved in vegetable projects. The `matrikel_nr` column represents the matriculation number of the author.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
given_name	VARCHAR(1000)	
family_name	VARCHAR(1000)	
matrikel_nr	VARCHAR(1000)	
project_id	INT	FOREIGN KEY (Project)

Table: `MeasurementMethod`

Stores information about measurement methods used in vegetable projects. The `measured_properties` column represents the measured properties, and the `unit` column represents the unit of measurement.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
name	VARCHAR(1000)	
measured_properties	veg.measuredproperty	ENUM(measuredproperty)
unit	veg.measuredunit	ENUM(measuredunit)

Table: `MeasurementResults`

Stores measurement results related to vegetable projects, measured objects, methods, and persons. The `measured_value` column represents the actual measured value.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
measured_value	FLOAT	
project_id	INT	FOREIGN KEY (Project)
measured_object	INT	FOREIGN KEY (MeasuredObject)
method	INT	FOREIGN KEY (MeasurementMethod)
person	INT	FOREIGN KEY (Person)

Table: `MeasuredObject`

Stores information about measured objects in vegetable projects. The `geometry_type` column represents the geometry type.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
name	VARCHAR(1000)	
geometry_type	veg.geometrytype	ENUM(geometrytype)

Table: `Person`

Stores information about persons in the context of vegetable projects. The `name` column represents the name of the individual.

Column	Type	Constraints
id	SERIAL	PRIMARY KEY
name	VARCHAR(1000)	

These tables and enumeration types provide a structured framework for managing data related to projects, authors, measurement results, persons, measurement methods, and measured objects in both the `body` and `veg` schemas.

Enumeration Types

`gendertype`

Represents gender types, including 'female,' 'male,' and 'diverse.' This enumeration type is used in the `Person` table to describe the gender of individuals.

`geometrytype`

Represents geometry types, such as 'sphere,' 'cylinder,' 'pyramid,' 'cube,' and 'rectangcuboid.' This enumeration type is used in the `MeasuredObject` table to describe the geometry of a measured object.

`measuredproperty`

Enumerates measured properties, including 'length' and 'volume.' This enumeration type is used in the `MeasurementMethod` table to categorize different types of measurements.

`measuredunit`

Enumerates measured units, such as 'mm,' 'm,' 'ml,' and 'l.' This enumeration type is used in the `MeasurementMethod` table to specify the unit of measurement.