# Table: Valves

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| **Schema:** | SystemSchematicBuilder |
| **Responsible:** | Kurt A Vedros |

Table holds the information on the valve part.

Valve – a plumbing connection part that is used to control the flow of contents. Considered to either be fully shut (No flow past the valve) or fully open (Flows regularly past the valve as though it wasn’t there). Considered to have one entrance and one exit. May be from top to bottom or left to right on a grid square.

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| **Column Name** | **Data type** | **Description** |
| ValveID | Int | Primary Key for Valve. |
| FlowRegulatorID | Int | Foreign Key linking to FlowRegulator. |
| Name | String | The name the user wants to use to identify the valve. (Could remain empty if user wants). |

**Procedures (Database functions)**

* sprocGetValves
  + Returns a list of Valve objects that are currently stored in the database.
* sprocGetValve
  + Returns a Valve object that is currently stored in the database that has the given Valve ID number.
* sproc\_ValveAdd
  + Stores the given Valve object into the database and returns its assigned Valve ID number.
* sproc\_ValveUpdate
  + Changes information of the Valves Table in the database with the given primary key to the given Valve class object.
* sproc\_ValveRemove
  + Removes the Valve from the Valves Table with the given Valve ID number.

**DAL (Software Functions)**

* ValvesGetAll()
  + Returns a list of Valve objects that are currently stored in the database.
* ValveGet(int ID)
  + Returns a Valve object that is currently stored in the database that has the given Valve ID number.
* ValveAdd(Valve Valve)
  + Stores the given Valve object into the database and returns its assigned Valve ID number. Returns -1 if error occurred, otherwise returns null.
* ValveUpdate(Valve Valve)
  + Changes a Valve object that is currently stored in the database with the given Valve’s Valve.ID with the Valve’s information.
* ValveRemove(int ID)
  + Removes the Valve object stored in the database with the given Valve ID number. Returns -1 if error occurred, otherwise returns null.