**Step 2: Organise and Describe Data and Inputs**

**Data Table** (correlating Data, Inputs, Outputs):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data** | **Type** | **Example** | **Input Source** | **Output Destination** | **Limits** |
| current\_time | datetime | 2025-08-07 22:07:00 | RTC (I2C signal) | Log (EEPROM) | 24-hour format |
| bowl\_weight | float | 100.0 g | Weight sensor (Analog) | Log (EEPROM) | 0–500 grams |
| button\_status | boolean | True | Button (Digital HIGH/LOW) | Servo motors (PWM) | True/False |
| dry\_schedule | array | ["08:00", "12:00"] | Control Unit (pre-set) | Servo motors (PWM) | Up to 3 times/day |
| wet\_schedule | array | ["18:00"] | Control Unit (pre-set) | Servo motors (PWM) | Up to 2 times/day |
| dry\_amount | float | 100.0 g | Control Unit (pre-set) | Servo motors (PWM) | Fixed amount |
| wet\_amount | float | 150.0 g | Control Unit (pre-set) | Servo motors (PWM) | Fixed amount |
| uneaten\_threshold | integer | 2 hours | Control Unit (pre-set) | Buzzer/LED (Digital HIGH) | In hours |
| last\_feed\_time | datetime | 2025-08-07 08:00:00 | RTC (I2C signal) | Log (EEPROM) | 24-hour format |
| last\_weight | float | 100.0 g | Weight sensor (Analog) | Log (EEPROM) | 0–500 grams |
| log\_entry | string | "[2025-08-07 08:00:00]: Gave Dry, 100g" | Control Unit (generated) | Log (EEPROM) | Short text |