

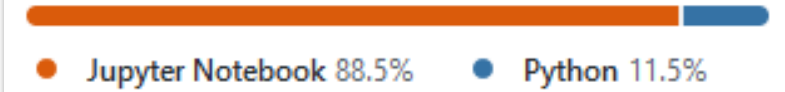
Industrial Smart Metering

An IoT solution for Smart Metering



Project's Git

Languages



gibait / industrial-metering-iot Private

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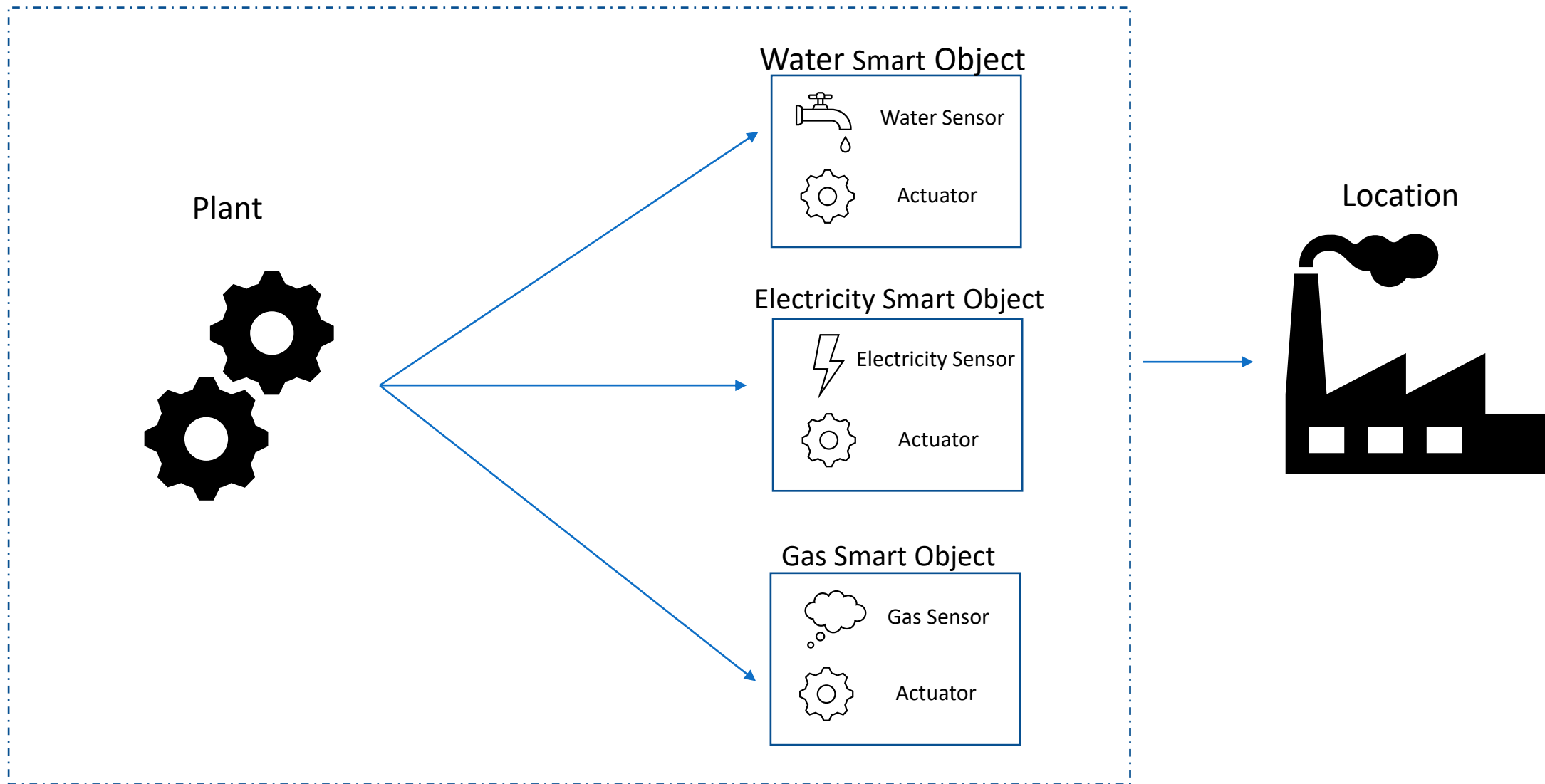
master 1 branch 0 tags [Go to file](#) [Add file](#) [Code](#)

gibait Update README.md e0b5646 5 days ago ⌚ 54 commits

.idea	changed sdk	16 days ago
analysis	consumption & costs analysis notebook	6 days ago
data	data dump	6 days ago
mqtt	added location & plant support and stop method	6 days ago
README.md	Update README.md	5 days ago

<https://github.com/gibait/industrial-metering-iot>

Smart Metering Scenario



Devices' Hardware

Water Smart Object



Electricity Smart Object



Gas Smart Object



<802.15.4>

<802.15.4>

<802.15.4>



Plant Broker

Architecture



Resources Model

water_sensor	
attribute	type
id	uuid
resource_type	string
water_level	int
is_active	boolean
timestamp	long

gas_sensor	
attribute	type
id	uuid
resource_type	string
gas_level	int
is_active	boolean
timestamp	long

electricity_sensor	
attribute	type
id	uuid
resource_type	string
electricity_level	int
is_active	boolean
timestamp	long

actuator	
attribute	type
id	uuid
resource_type	string
value	boolean

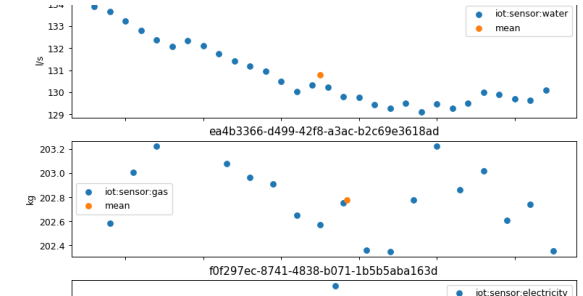
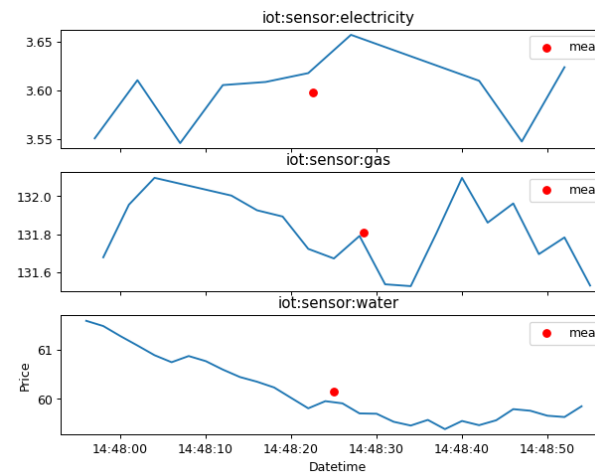
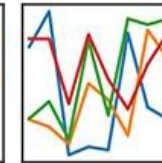
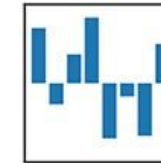
device	
attribute	type
device_id	uuid
type	string
location	string
plant	string
manufacturer	string

Data Visualization



pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



Thanks

Giulio Barabino