UML - SensorSystem (INL2)

SystemController
- □ vector<unique_ptr<Sensor>> sensors_
- ■ Storage storage_
- □ vector<Threshold> thresholds_
- □ vector<Alert> alerts_

- ● void addSensor(unique_ptr<Sensor>)
- ● void sampleAllOnce()
- ● void configureThresholdInteractive()
- ● void showAlerts() const
- ● void showStatsFor(const string&) const
- ● void saveMeasurements(const string&) const
- ● void loadMeasurements(const string&)

A Sensor
- ● virtual ~Sensor()
- ● virtual double read()
- ● virtual string name() const
- ● virtual string unit() const

Storage
- □ vector<Measurement> measurements_
- ● void add(const Measurement&)
- ● vector<Measurement> all() const
- ● bool saveCsv(string path)
- ● bool loadCsv(string path)

Threshold
- ○ string sensorName
- ○ double limit
- ○ bool over

Alert
- ○ string sensorName
- ○ double value
- ○ Threshold rule
- ○ time_point timestamp

Measurement
- ○ string sensorName
- ○ double value
- ○ time_point timestamp

TemperatureSensor
- □ string id_
- □ double minV_, maxV_
- ● TemperatureSensor(string id, double minV, double maxV)
- ● double read()
- ● string name() const
- ● string unit() const

HumiditySensor
- □ string id_
- □ double minV_, maxV_
- ● HumiditySensor(string id, double minV, double maxV)
- ● double read()
- ● string name() const
- ● string unit() const

PressureSensor
- □ string id_
- □ double minV_, maxV_
- ● PressureSensor(string id, double minV, double maxV)
- ● double read()
- ● string name() const
- ● string unit() const

Relationships: uses (many), composes, maintains (many), records (many), stores (many)