**Design Patterns**

Builder pattern and Logger pattern are implemented.

**User Input Security**

Invalid input can not crash the program.

**Integer Wrap Security**

PressureSensor.cpp line 23-24 integer flow checking.

**String security**

C++ string is prefered to char array, All strings are initilized.

**Memory Management**

Device.cpp line 119, deleting object that was created by using 'new' keyword. Users and sensors that were created by using 'new' werent deleted.Because they are required until program is halt.

**File Processes Security**

‘ifstream’ and ‘ofstream’ es are preferred to ‘fscanf’ and ‘fopenf’.

**Functional Requirements**

PressureSensor.cpp line 23 • data processing of input from 1 sensor.

Sensor.cpp line 50-100 • The state of 1 sensor can be changed in a complex process that is very realistic and fully working.

Device.cpp line 140-150 • All 3 sensors produce fully realistic data.

WindSpeedSensor line 20-25 • state of 1 sensor changeable (inactivation in case of extreme input).

Permissions of each user type are different from each other.

**Compiler Options**





