**ML Model**

The central processing unit of the HVAC collects data from the following sensors:

* Temperature sensors installed in each room
* Temperature sensors installed in hot & cold air ducts.
* Pressure sensors installed in each room.

It generates control commands based on that data to achieve the following functionalities:

* Regulate the pressure in each room via AHU air blower speed.
* Regulate the air mix ratio for each room via dampers in the AHU to control the temperature of the room.

When generating control commands they are stored in the database as well. We can use this data to create ML models and increase the efficiency of the HVAC. For example, training an ML model on historical data over a long period of time will allow us to identify trends in HVAC utilization such as peak times (i.e. times where the building is busiest during the day) and idle times to optimize the control algorithm for greater efficiency by predictively activating or deactivating the boiler or chiller in anticipation of expected thermal loads.

