Purdue Projects and Weekly Assignments – Level 0-1

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23SS_INFO_2123_HSA – Intro to SCADA Security

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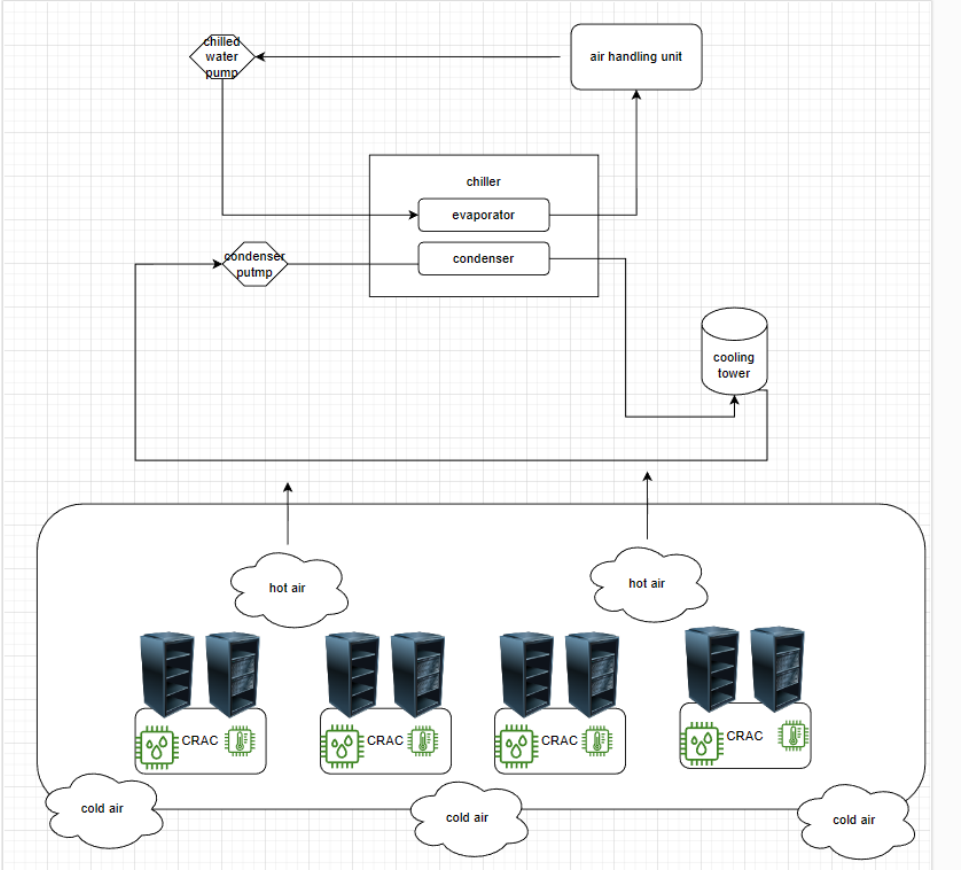
Power distribution, cooling systems, fire detection and suppression, physical security, environmental monitoring, and equipment monitoring are all processes that take place in a data center. According to streamdatacenters, the average enterprise data center costs between $10 million and $12 million per megawatt to build and $10 to $25 million to operate. SCADA processes help data centers increase their efficiency and automate repetitive work.

It is crucial to monitor environmental conditions in data halls. SCADA can monitor and manage cooling equipment such as chillers, air conditioning units, fans, and water pumps.

Chillers are large cooling units that remove heat by circulating chilled water. Temperature settings and flow rates can be measured by sensors and later used by the SCADA system to make decisions with PLCs and actuators by controlling valves, pumps, and fans.

Environmental sensors are implemented throughout a data hall to monitor and manage the performance of cooling equipment, optimize energy use, ensure proper airflow, and alert personnel when events take place.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cooling tower
hot air
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Reference

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