

## **sysInventory Description**

sysInventory is a database designed to catalog my current computer systems hardware. This database logs the processor information, graphics card information, computer name, and if the computer is being treated as a server, as well as the overall system configuration.

To do so, the database stores the information in four separate tables all with specialized functions. Each table has a primary key as well as pertinent information to each part of the computers.

The Computers table holds the data of the name of the computer, as well as stores the information of the boolean value of if the table is being treated as a server or not. The primary key is automatically incremented, and is used as a reference to other tables as a primary key. This field has also been given the constraint of not being allowed to be null.

The processor table holds all pertinent information of each processor used in the computers. This data includes the SKU, socket, amount of cores, amount of threads, base clock, boost clock, thermal design power, as well as the year the product was released. To reference this data, the column cpuid is automatically incremented and is the primary key of the table.

The graphicsProcessor table holds all information of the graphics processor in the database. This table stores the SKU and manufacturer. The design of this table differs from the processor table, as the processor table does not list the manufacturer. This was a conscious decision as a manufacturer can be identified by the socket the processor uses, while all graphics cards use the same PCI or PCIe standard, and therefore can not be identified by how they are socketed to the computer's motherboard. To reference the graphics processors, an automatically generated four digit primary key is created and named gpuid.

The computerHardware table stores all the primary keys of the other tables to reference in SELECT statements and contains all the primary keys of other tables as foreign keys, and also is used as a catch-all to store all remaining data that would not fit elsewhere and is dependent on the computer hardware as a whole. cpuid, gpuid, and computerID are all foreign keys that reference their respective tables. The remaining data in this table is the amount of processors listed as cpuQuantity. Ram is also in the table which holds the data for the amount of ram in the system, ram generation, form factor, and if the memory is error correcting. This data is listed as ramQuantity, ddrGen, ddrEcc, sodimm respectively. Lastly, the amount of hard drive space, as storageSize, a boolean of if the storage is in a RAID configuration as raid, and a boolean of if the computer has remote manage capability, as remoteManage.