Ty Simpson

CS-250

Randolph

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Memory and Storage Management

When it comes to Draw It or Lose It, memory management would best be handled by the program level. At its core, memory management at the program level has two processes: allocation and recycling. Allocation is when the program requests and assigns memory to an aspect of the program – for instance Draw It or Lose It could assign an image pulled from storage to memory so that it can access it much faster for later use during the game. When the program no longer needs the memory resource, it releases it through recycling, which can then be reassigned. This can all be handled by building a memory manager into the program or through a separate language module.

Storage management can be handled in one of two ways. You could handle it locally on the drive – with 200 high quality images at 8mb an image, you are only looking at 1600mb of data – or 1.6kb. It is not a lot, and for the short term, local storage is not a bad choice. However, what if we wanted to add more than just 200 pictures? What if we wanted to add video or voice over? Our storage needs then start to grow. In this instance, it may be best to opt for a cloud option like AWS S3. There is a monthly cost associated with it, but by managing our storage through the cloud, it allows us to be more flexible. (*Amazon S3**.* )

While memory and storage both store and house data, they differ in important ways. Memory is short-term while storage is long. For instance, once a computer is turned off, anything stored in memory is gone while everything that is in storage remains. Memory is stored on a component in your computer known as RAM. While storage is handled by the hard drive. Storage can also be located externally through physical devices like flash drives – or in the Cloud. (*What is the Difference Between Memory and Storage.* 2020)

References

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*What is the Difference Between Memory and* *Storage.* (2020). Kingston Technology. Retrieved 2/12/2023, from <https://www.kingston.com/en/blog/pc-performance/difference-between-memory-storage>