UNI CS 3430
Operating Systems

Suggested Exercise #9

---

1. For a hierarchical name space, what are the steps to resolve the path /pets/cat.jpg?

2. How many disk I/Os do we need to resolve the path (without caching)?

3. Answer one of the following questions

   (a) If you can have infinite number of CPUs (computation time is zero) on a machine, how would you design your file system?

   (b) If you can have infinite memory size on your machine, how would you design your file system?

   (c) If you can have infinite disk storage on your machine, how would you design your file system?

   (d) If you can have infinite network bandwidth on your machine, how would you design your file system?

4. Answer one of the following questions

   (a) How would you design a file system to store only large files?

   (b) How would you design a file system to store only small files?

   (c) If you have as much memory capacity as the disk capacity, how would you design your file system?

5. Name three current common file systems and describe a design strength of that file system. (You may need to look this up…)