区块链作业三

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1. What could be major differences between UNIX and Windows? (hint: online searching)

UNIX is mainly a multi-user, multi-tasking network operating system, while Windows is mainly an operating system for individual users. UNIX has high security and strong system management. UNIX mainly runs back-end services and middleware or databases. The security of Windows is poor, and it is often virus-infected, and even the entire machine is destroyed. It has too many vulnerabilities and bugs, but Windows also has the advantages of beautiful interface, strong ease of use, and rich game software and office software.

1. What is incremental backup in Data Backup and Recovery management?

Incremental backup is a type of backup that means that after a full backup or an incremental backup, only files that have been added or modified from the previous backup will be backed up for each subsequent backup.

1. What’s the Wear-Leveling Algorithm for SSD (Solis State Disks)?

Wear leveling is a technique for prolong the service life of Solid State Disks. There are three basic types of wear leveling mechanisms: Dynamic wear leveling, Static wear leveling and Global wear leveling. Dynamic wear leveling uses a map to link logical block addresses (LBAs) from the OS to the physical flash memory. Each time the OS writes replacement data, the map is updated so the original physical block is marked as invalid data, and a new block is linked to that map entry. Each time a block of data is re-written to the flash memory, it is written to a new location. However, flash memory blocks that never get replacement data would sustain no additional wear, thus the name comes only from the dynamic data being recycled. Such a device may last longer than one with no wear leveling, but there are blocks still remaining as active even though the device is no longer operable.

1. What is Cognitive IoT?

Cognitive IoT is an approach of deciphering IoT data that can effectively handle increasingly large inputs while generating meaningful output. Cognitive IoT is intended as a powerful, sophisticated way of handling massive amounts of complex IoT data and it is an unprecedented opportunity to exploit this modern resource.