OS(HANDSON)

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1)Compare Windows File System and Linux File Systems

Feature	Windows (NTFS)	Linux (EXT4)
File System Type	NTFS (New Technology File System)	EXT4 (Fourth Extended File System)
OS Compatibility	Native to Windows, limited support on Linux	Native to Linux, read-only or limited write on Windows
Maximum File Size	16 TB	16 TB (theoretical), 2 TB (common default)
Maximum Volume Size	256 TB	1 EB (theoretical), commonly up to 16 TB
Journaling	Yes	Yes
Security (Permissions)	File/Folder level ACLs, encryption support	POSIX-style permissions, SELinux/AppArmor for security
Performance	Optimized for Windows applications	Generally faster in Linux due to lower overhead
Fragmentation	Fragmentation is common, needs defragmentation	EXT4 handles fragmentation better
File Naming	Case-insensitive, allows spaces	Case-sensitive, space-sensitive
Support for Links	Hard links, limited symbolic links	Supports both symbolic and hard links
Reliability	Very reliable with journaling	Very reliable with journaling and faster fsck

2. Illustrate scheduling algorithms FCFS and SSTF with a request queue (0-199) . Calculate the cylinder movements required in each case.

Request Queue: 99, 180, 37, 122, 14, 124, 63, 65

Head pointer 50