Unix Linux р Developed in the 1970s by AT&T's Bell Labs. Created in 1991 by Linus Torvalds as a Unix-like OS. Origin Kernel Proprietary and monolithic kernel. Open-source, monolithic kernel (Linux Kernel). Closed source (except for some variants like BSD). Source Code Open-source and freely available under the GPL license. Cost Commercial versions are expensive. Free or low-cost, with commercial support available. Primarily used in enterprise servers, mainframes, and Widely used in servers, desktops, mobile devices (Android), and Usage specialized systems. embedded systems. Limited hardware support; mainly designed for specific **Hardware Support** Extensive hardware support for a wide range of devices. systems. Varieties Examples: AIX, HP-UX, Solaris, FreeBSD. Examples: Ubuntu, CentOS, RHEL, Fedora, Arch Linux. POSIX-compliant, but variations exist between Compatibility Generally POSIX-compliant with high compatibility. implementations. Enterprises with legacy systems and high-performance **User Base** Developers, students, enterprises, and general users. computing needs. **Development Model** Developed by specific companies or institutions. Community-driven and company-backed distributions. Generally considered robust but depends on vendor Security patches are frequent due to open development. Security updates. Includes proprietary file systems like UFS, JFS. Supports modern file systems like ext4, XFS, ZFS, BTRFS. File System Customization Limited customization; depends on the vendor. Highly customizable due to open-source nature. Support Vendor-provided, often costly. Community and commercial support are widely available.