**Assignment 01**

**Submitted To:**

**Sir Abu Bakar**

**Submitted By:**

**Muhammad Hamza Tahir**

**Roll No:**

**BSIT(M2)-20-32**

**Semester:**

**4th**

**Subject:**

**Operating System**

# **Different Operating System**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ………………………… | **Kali Linux** | **Cent OS** | **Server 2016** | **Ubuntu** | **Windows 10** |
| Intro: | Kali Linux is an open-source, Debi. an-based Linux distribution that is maintained by offensive security aimed at advanced Penetration Testing Computer Forensics and Reverse Engineering and Security tasks such as Security Research | CentOS that stands for Community Enterprise Operating System.. CentOS is an upstream open source development platform which allows you to develop, test and contribute to a continuously delivered distribution that tracks just ahead of Red Hat Enterprise Linux. | Microsoft Windows Server 2016, previously referred to as Windows Server v Next, is a server operating system (OS). The server operating system is specifically developed to serve as a platform for running networked applications. | Ubuntu is a Linux-based operating system. It is designed for computers, smartphones, and network servers. The system is developed by a UK based company called Canonical Ltd. | . Windows is a graphical operating system developed by Microsoft. . It was released in July 2015. It was launch to target personal computing. . It allows users to view and store files, run the software, play games and provide a way to connect to the internet. It was released for both home and professional work. |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Features: | |  | | --- | | **Window** |   . Protect and Supervise mode  . Allows disk access and file system drivers security.  . Program Execution  . Memory Management  . Handling I/O operations  . Resource allocation. | |  | | --- | | **Ubuntu** |   Ubuntu is free and open source operating system.  . Ubuntu is more secure.  . Ubuntu supports windows tiling.  . A well-rounded operating system for desktop. | |  | | --- | | **Server 2016** |   Containers  . Linux Secure Boot  . ReFS. ...  . Storage Spaces Direct  . ADFS v4  . Nested Virtualization  . Hyper-V Hot-Add Virtual Hardware. | |  | | --- | | **Kali Linux** |   Open Source Git Tree  . FHS Compliant  . Wide-ranging wireless device  . Custom Kernal  . GPG signed packages. | |  | | --- | | **Cent os** |     Desktop Environment  . Cockpit Web Console  . Networking  . Contents Distribution  . Software Management  . Virtualization  . Advanced Security |
| Confidentiality | Yes | Yes | Yes | No | Yes |
| Integrity | Yes | Yes | Yes | No | No |
| Availability | Yes | Yes | Yes | Yes | Yes |

**Requirements:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Requirements: | Ubuntu | Kali Linux | Cent os 8 | Server 2016 | Window 10 |
|  | CPU:1 gigahertz  RAM:1 gigabyte  DISK: a minimum of 2.5gigabytes | 2 GB of RAM.  20GB of disk space.  32 or 64 bit cpu with 2 GHz speed. | 2Gb RAM  20GB hard disk | * Processor: 1.4Ghz 64-bit processor. * RAM: 512 MB. * Disk Space: 32 2GB. * Network: Gigabit (10/100/1000baseT) Ethernet adapter.   Optical Storage: DVD drive | * Processor: 1 gigahertz (GHz) or faster processor or SoC. * RAM: 1 gigabyte (GB) for 32-bit or 2 GB for 64-bit. * Hard disk space: 16 GB for 32-bit OS 20 GB for 64-bit OS. * Graphics card: DirectX 9 or later with WDDM 1.0 driver. * Display: 1024 x 600 or above. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Ubuntu | Windows 10 | Kali Linux | Centos | Server 2016 |
| Advantages: | * **Monitoring.** * **Less system requirements.** It is an operating system that does not require state-of-the-art equipment.   Less system requirement | * The loading time of Windows 10 is much less than that of Windows 7. * Stability and performance has been greatly improved in Windows 10. | Good Distribution for expert  -provide more security & Stability  -You can cover a wide range of thing | Highly reliable and stable for enter price work holders a free variant of well trusted RHEL. | Experienced engineers are relatively common lots third party apps and hardware support comptatibility. |
| Disadvantages: | * **Not recommended for gamers.** * **Little compatibility** with other programs. Not compatible with all programs and applications. * **Little compatibility** with other programs. | * Your personal information will be shared with Microsoft for better service and improvement. * Upgrading to Windows 10 sometimes may lead to system crash. If it happens, you need to spend hours to solve this problem. | Not for beginners.  -Provide a huge amount of tools which are not needed | Smaller user base then other distribution- centos while well established as a viable Linux distribution laks and strong of user base as other distribution making it more difficult to get support on user forums. | Initial licensing cost ongoing support costs .  Because of popularity of OS tend to be focus of attack vectors not necessarily less secure but subject to more attacks. |