Abstract

Varieties of operating systems (OS) have emerged over the years having different features and functionalities. Understanding the functionalities of each OS guides users’ decisions about the OS to install on their computers. In view of this, the comparative analysis of different OS is needed to provide details on the similarities and difference in recent types of OS vis-à-vis their strengths and weaknesses. This paper focuses on the comparative analysis of Windows, Unix, Linux, Mac, Android and iOS operating systems based on the OS features and their strengths and weaknesses. A qualitative analysis of six different operating systems result showed that Windows 10 had 0.04 malware file present while Windows 7 machine was 0.08. Higher percentage of mobile malware target Androids than iOS. Windows 10, Linux, UNIX and Mac OS are more secured and reliable. Windows and Android are more popular, user-friendly, easy to use and allow more application program than Mac OS. Linux and Android are free while Windows is moderately costly and Mac OS is very costly. Except for Mac and iOS others allow compatibility. Windows 10 and Mac OS integrated firewall. Windows and Android tend to be the
most widely used especially the newest versions. It is because they are affordable, secure, reliable, compatible and user friendly. This study helps to provide some guides to both end-users and developers guiding them in taking decisions about operating systems that are most suitable for them.

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Index Terms

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