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CREATING VIRTUAL ENVIRONMENT IN DESKTOP USING DIFFERENT TOOLS

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ABSTRACT

Creating the Virtual environment in the desktop for the use of multiple operating systems can be performed using various virtual tools which help prevent us from using more disk space. It reduces the usage of hard disk drive space and we can create a dual operating environment without disturbing the original operating system environment. Using this kind of virtual environment provides the user to practice various software applications without disturbing the original operating system. This paper mainly discusses how a virtual environment can be created on the desktop.

Keywords: Virtual tools, disk space, dual operating environment.

I. INTRODUCTION

Virtualization kicked off originally in the days of Pentium II 1998 [1]. The virtualized x86 interface factored into three categories memory management, CPU, and device I/O [2]. The first thing that comes to mind when we talk regarding the virtualization is that it is used in the cloud only. Virtualization is mainly confused with the cloud environment. Virtualization is software which separates physical infrastructure to dedicated resources. Being a student practicing the various needs of developing new applications require more usage of hard-disk space and randomly practicing this kind of applications in the desktop environment may destroy the hard disk drive after repeatedly installing and uninstalling the applications into the machine. The main objective of using the virtual environment on the desktop provides the users the various advantages. Different organizations provide different tools for creating the virtual environment on the desktop. The most used of these tools are from the organizations like Microsoft, Oracle, and VMware. The first and foremost thing is that why virtual environment in the desktop. Virtual Environment provides some benefits like reducing the cost of Hardware and deploying the various applications in the environment by separating the physical infrastructure to create various dedicated software resources. When a virtual environment is created the user space process that performs the device emulation to serve the guest forks a vCPU thread for each virtual CPU and a ”thread” thread for serving I/O requests[4].

In this Paper, I mainly concentrate on the three virtual environments provided by Microsoft which is virtual Pc, Oracle’s Virtual box, and VMware’s Workstation.

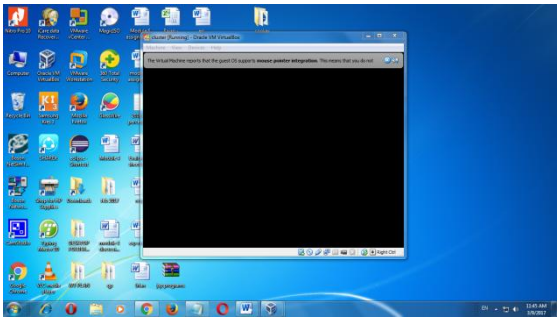
II. MICROSOFT VIRTUAL PC

Microsoft virtual PC provides the environment where u can create your own desktop environment and you can start using it for the multiple usages. The virtual environment mainly provides user to create new virtual machine where we can define a new virtual machine with the operating system being defined. It mainly provides the user to create a virtual environment using Microsoft operating Systems and the other operating Systems. In these you can create the virtual machine using the default settings are by using your requirements where we can increase the memory space for hard disk and Ram that can be used by users. The users can use the default RAM size or they can modify the RAM size according to their own requirements. We can use the existing hard disk space or we can create new disk space by mentioning the disk space.

The above result shows the console which has been created using the Microsoft Virtual PC where we can observe the multiple desktops where server and the desktop operating system are running simultaneously.

III. ORACLE VIRTUAL BOX

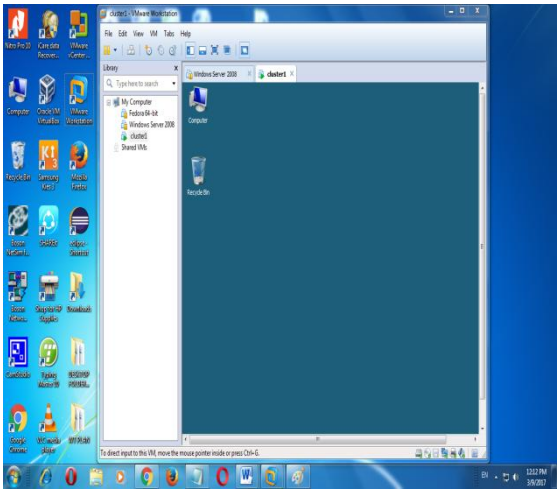
Virtual box is a general purpose virtualizer which supports x86 architecture and it supports various operating systems like windows, Linux, Mac operating systems. It provides various enhanced settings like USB, Network and other options. Here in this virtual environment, we can use the internet which provides the user the real-time experience and it also provides the user to take screenshots as well as to record the screen and user can show these to others that how their application is functioning.



The above results show how virtual box is functioning and we can use multiple operating systems and server operating systems.

IV. VMWARE WORKSTATION

VMware workstation provides more features comparing with the other two Virtual boxes which were discussed earlier. It provides more enhanced features like taking prints in the virtual environment and it can be used for hosting multiple operating systems for user's purpose and the user can test the different applications developed by them it also provides various enhanced features like capturing the screen as well as taking the video recording of the screen. The most important features it has are we can convert our own physical machine into a virtual machine using VMware workstation. It also provides the option of creating the virtual networks. It provides the option of connecting to the server and we can make a clone of the application that we want.



The above result shows how a virtual environment can be created using the VMware workstation where I have created the client and server operating systems which can be used for demonstrating the students.

V CONCLUSION

In this paper, I would like to conclude by saying that using different virtual machines in the desktop students can be benefited in all the ways by creating their own applications and they can use this application for testing without disturbing the original operating environment. The use of virtualization may affect the application performance [3].While using the network virtualization there is a barrier for the network breaking and the performance can be reduced [5].

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