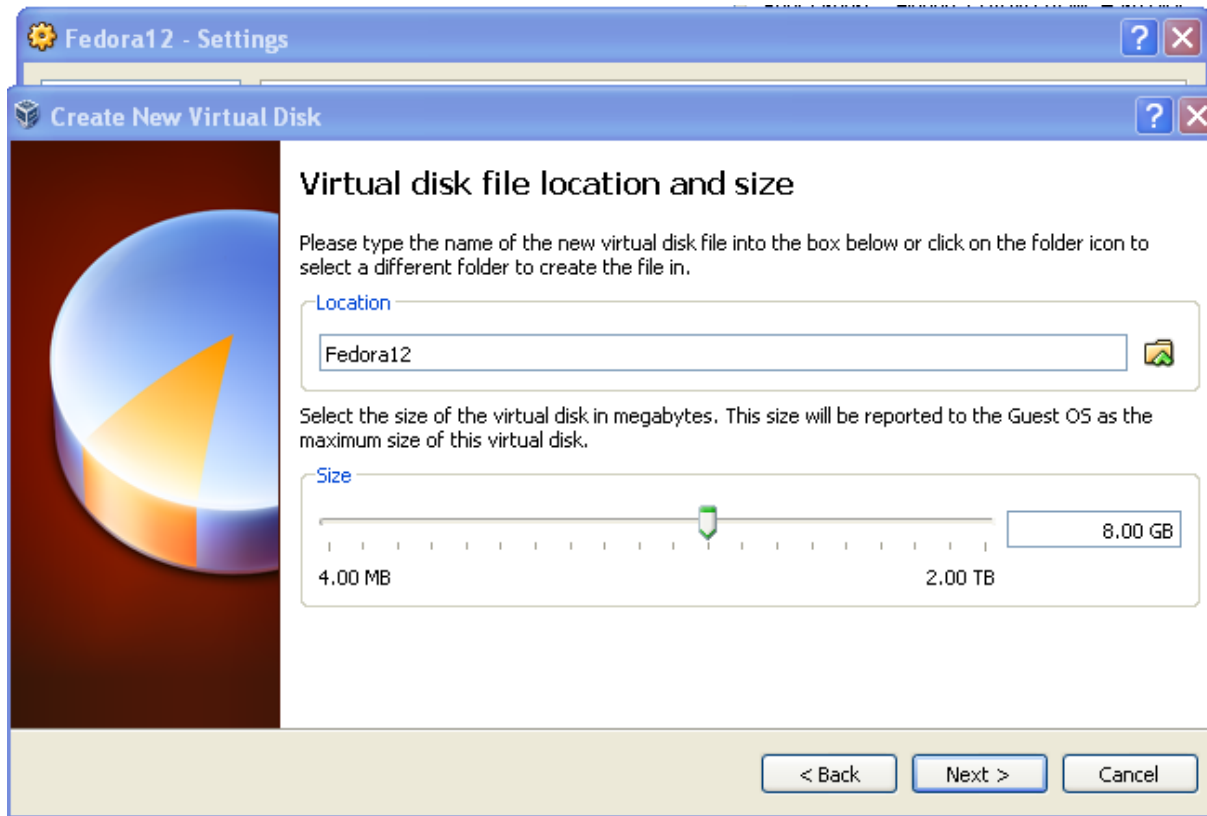


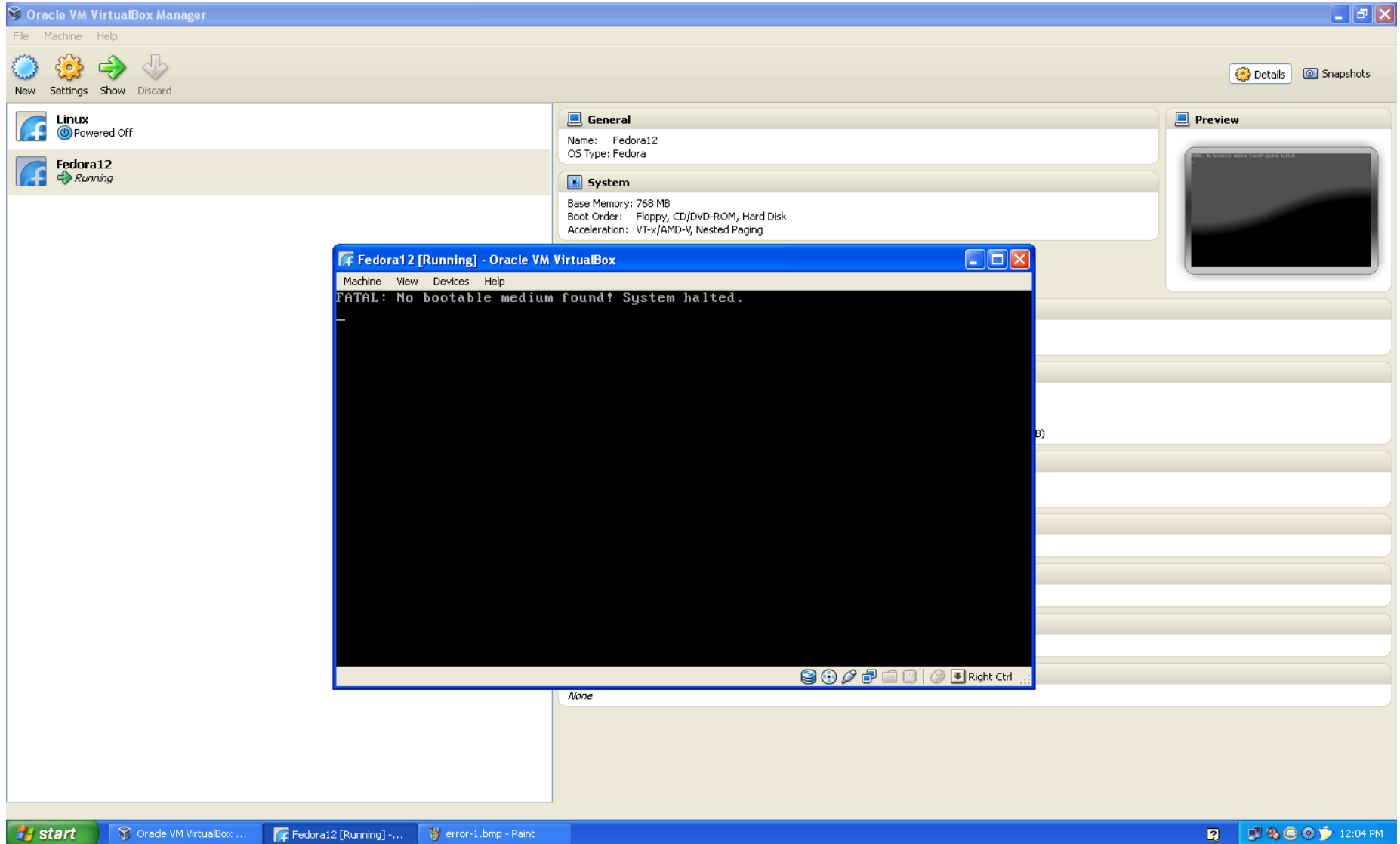
OS LAB -2

Engr. Nauman

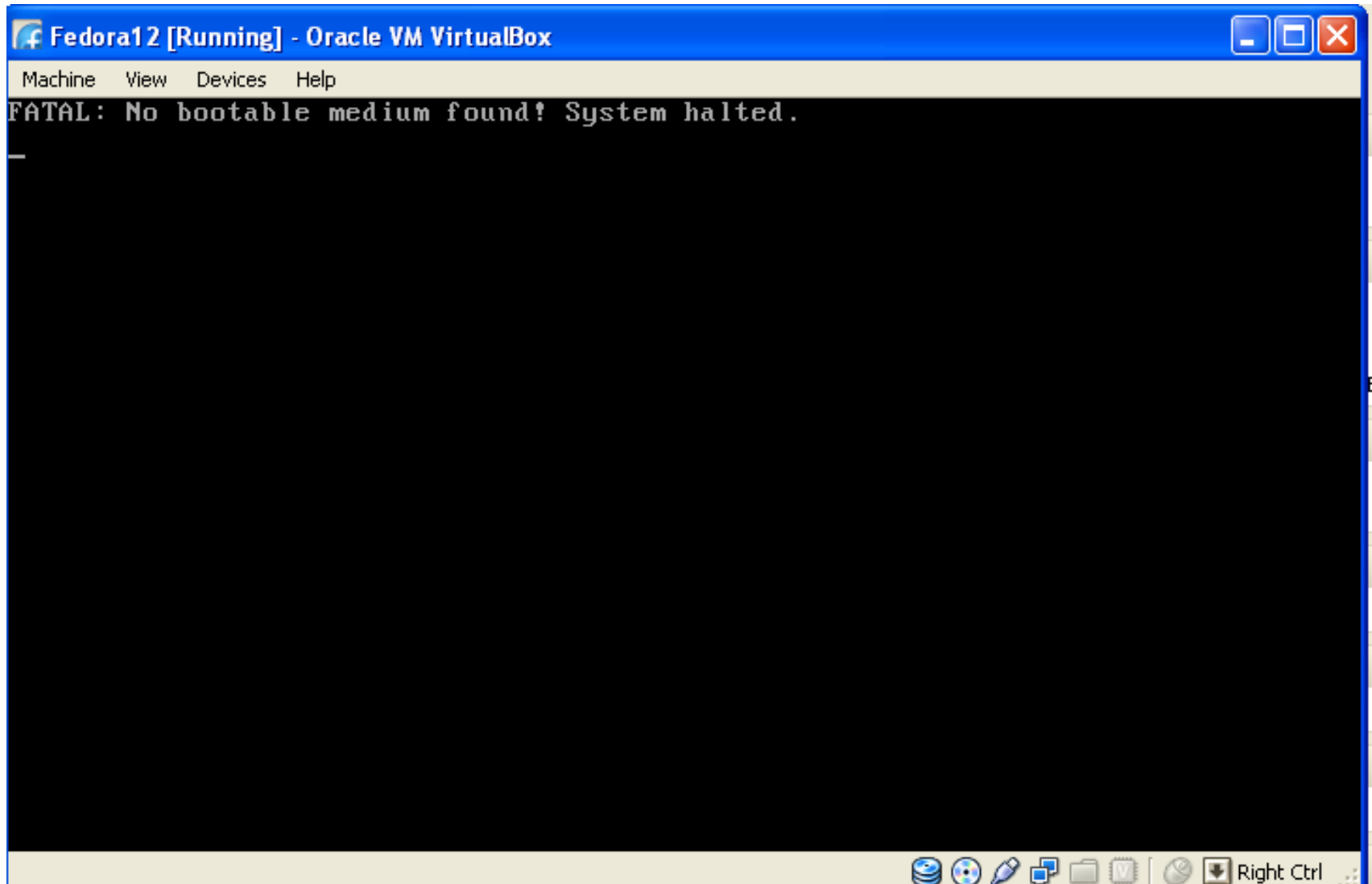
Issues in LAB - 1



Issues in LAB - 1



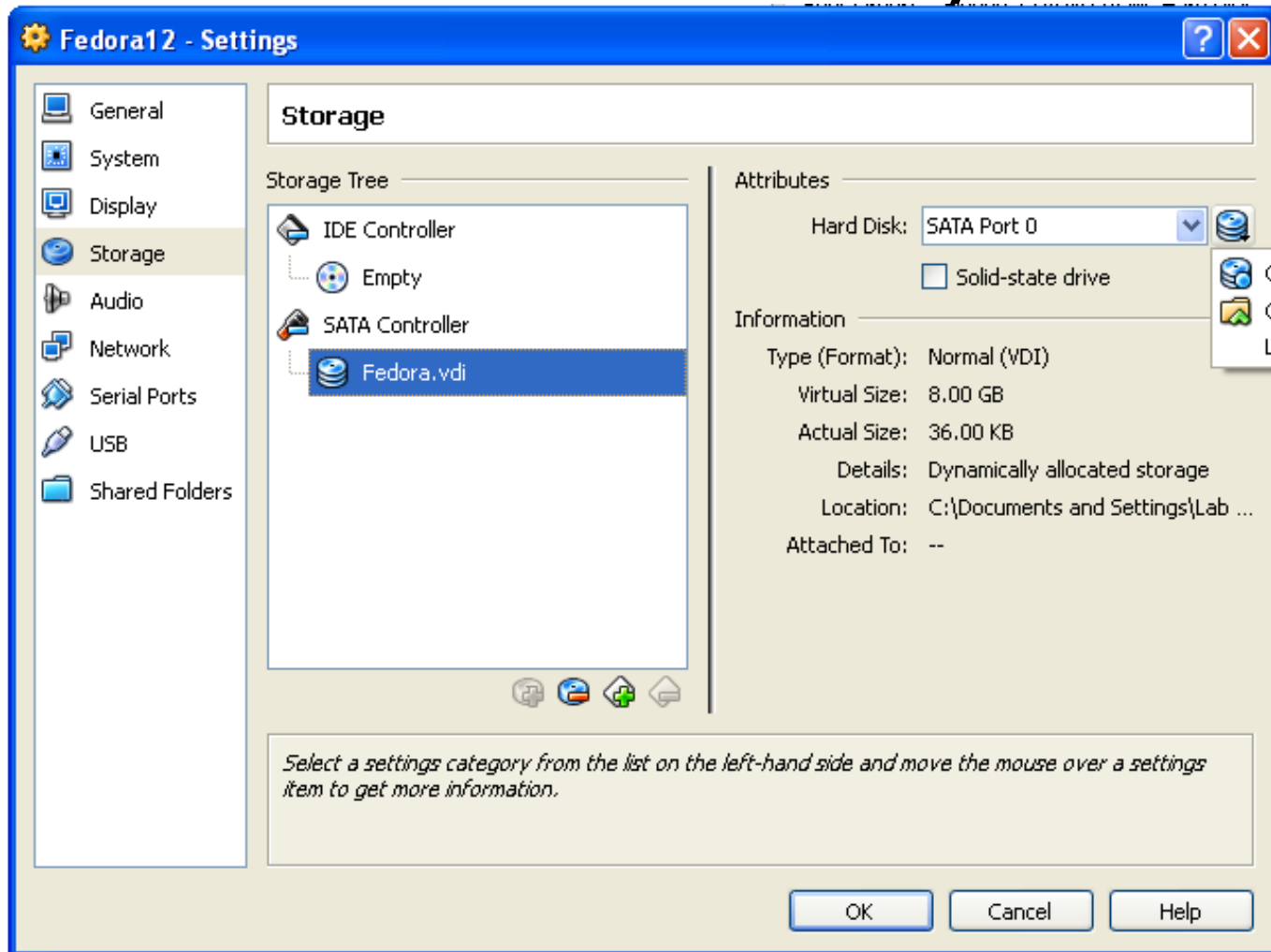
FATAL : No bootable medium found ! System Halted.



Problem – Solution

The screenshot displays the Oracle VM VirtualBox Manager interface. The main window shows the 'Fedora12' virtual machine settings. The 'Storage' tab is selected in the left-hand navigation pane. The 'Storage' settings dialog box is open, showing the 'Storage Tree' with 'IDE Controller' and 'SATA Controller' listed. Under the 'SATA Controller', 'Fedora.vdi' is selected. The 'Attributes' section shows 'Hard Disk: SATA Port 0' and 'Solid-state drive' is unchecked. The 'Information' section shows 'Type (Format): Normal (VDI)', 'Virtual Size: 8.00 GB', 'Actual Size: 36.00 KB', 'Details: Dynamically allocated storage', 'Location: C:\Documents and Settings\Lab ...', and 'Attached To: --'. A tooltip is visible over the 'Create a new hard disk...' button, listing options: 'Create a new hard disk...', 'Choose a virtual hard disk file...', and 'Linux.vdi'. The background shows the main interface with 'Fedora12' selected and a preview window showing the Fedora 12 logo.

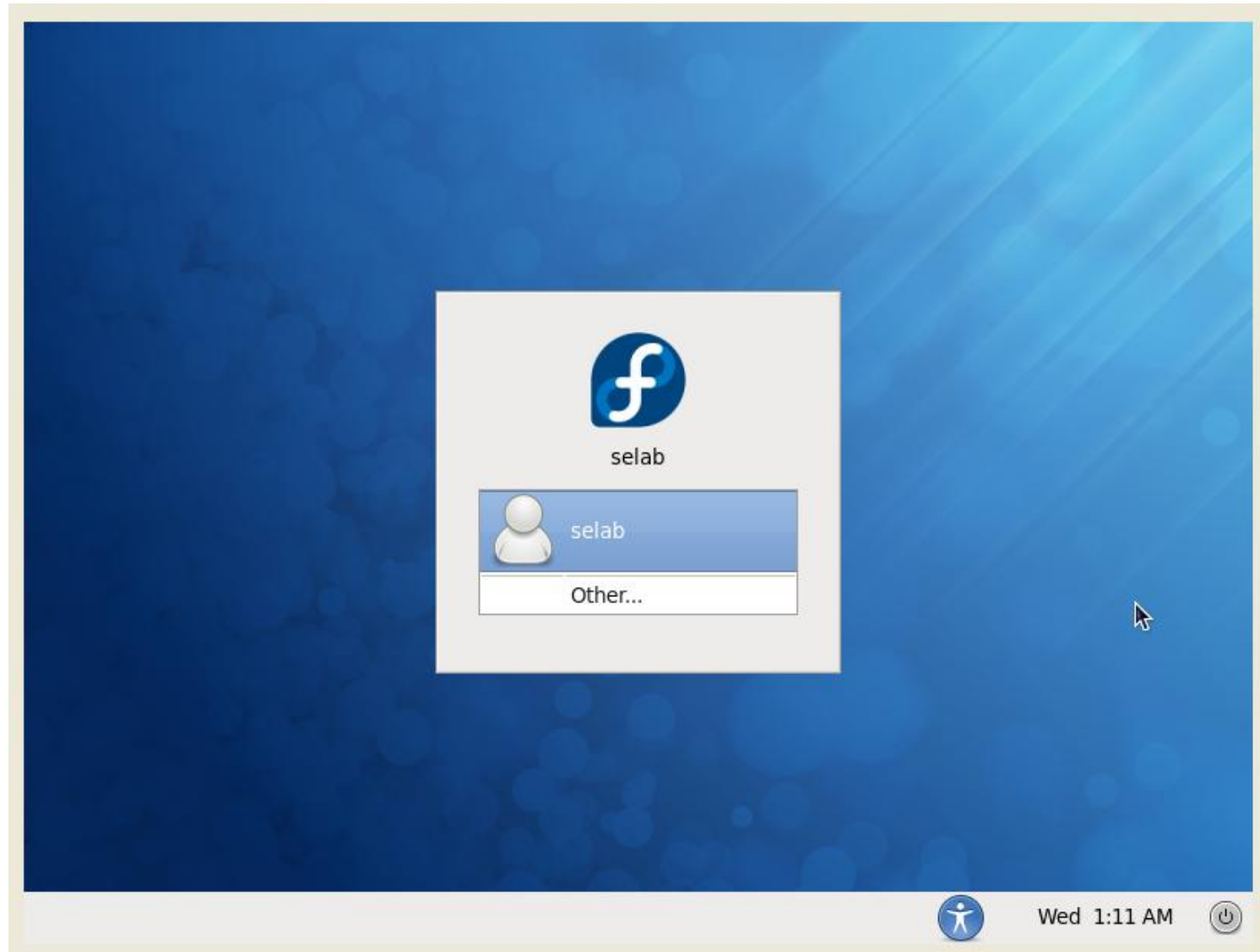
Load Bootable Fedora CD or give the path of the Hard drive on which Fedora is already Installed



VBoxGuestAdditio

Linux.vdi (Normal,

GNOME / KDE





selab



selab


Password:

Cancel

Log In

Language: English (United States) ▼

Keyboard: USA ▼

Sessions: GNOME 

Wed 1:15 AM



Failed to detect 64bit CPU

The screenshot shows the Sun VirtualBox interface. A blue error dialog box is centered on the screen, titled "VirtualBox - Error". The dialog contains a red 'X' icon and the following text:

VT-x/AMD-V hardware acceleration has been enabled, but is not operational. Your 64-bit guest will fail to detect a 64-bit CPU and will not be able to boot.

Please ensure that you have enabled VT-x/AMD-V properly in the BIOS of your host computer.

Buttons for "Close VM" and "Continue" are visible at the bottom of the dialog.

In the background, the VirtualBox main window is visible. The left sidebar shows a list of VMs: "fedora" (Paused) and "Linux" (Powered Off). The main area displays the "Description" tab for the "fedora" VM, showing the following details:

fedora	
Fedora (64 bit)	
793 MB	
1	
Floppy, CD/DVD-ROM, Hard Disk	
Enabled	
Enabled	
Display	
Video Memory:	12 MB
3D Acceleration:	Disabled
2D Video Acceleration:	Disabled
Remote Display Server:	Disabled
Storage	
IDE Controller	
IDE Primary Master:	fedora.vdi (Normal, 8.00 GB)
IDE Secondary Master (CD/DVD):	Fedora-14-x86_64-DVD.iso (3.28 GB)
Floppy Controller	
Floppy Device 0:	Empty

Fedora 64bit VM

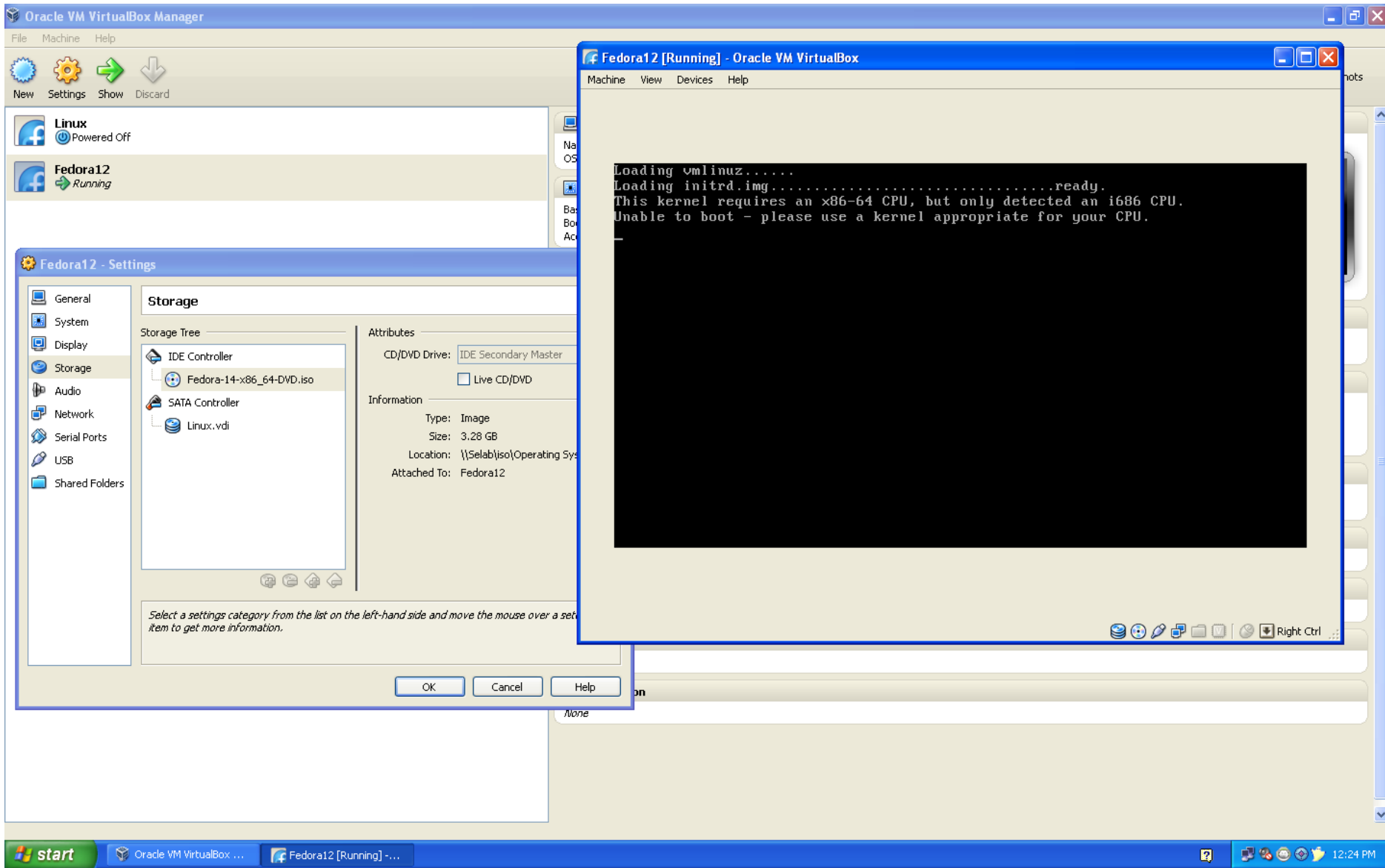
The image shows the Sun VirtualBox interface. On the left, the VM 'fedora' is listed as 'Running'. The main window displays the 'Details' tab for the VM, showing various configuration settings. A terminal window titled 'fedora [Running] - Sun VirtualBox' is open, displaying the following boot error message:

```
Machine Devices Help
Loading vmlinuz.....
Loading initrd.img.....ready.
This kernel requires an x86-64 CPU, but only detected an i686 CPU.
Unable to boot - please use a kernel appropriate for your CPU.
```

The error message indicates that the kernel is incompatible with the host's CPU architecture (i686 vs x86-64).

Category	Property	Value
General	Name:	fedora
	OS Type:	Fedora (64 bit)
System	Base Memory:	793 MB
	Processor(s):	1
	Boot Order:	Floppy, CD/DVD-ROM, Hard Disk
	VT-x/AMD-V:	Enabled
	Nested Paging:	Enabled
Display	Video Memory:	12 MB
	3D Acceleration:	Disabled
	2D Video Acceleration:	Disabled
	Remote Display Server:	Disabled
Storage	IDE Controller	
	IDE Primary Master:	fedora.vdi (Normal, 8.00 GB)
	IDE Secondary Master (CD/DVD):	Fedora-14-x86_64-DVD.iso (3.28 GB)
	Floppy Controller	
Audio	Host Driver:	Windows DirectSound
	Controller:	ICH AC97
Network	Adapter 1:	Intel PRO/1000 MT Desktop (NAT)
Serial Ports	Disabled	
USB	Device Filters: 0 (0 active)	
Shared Folders	None	

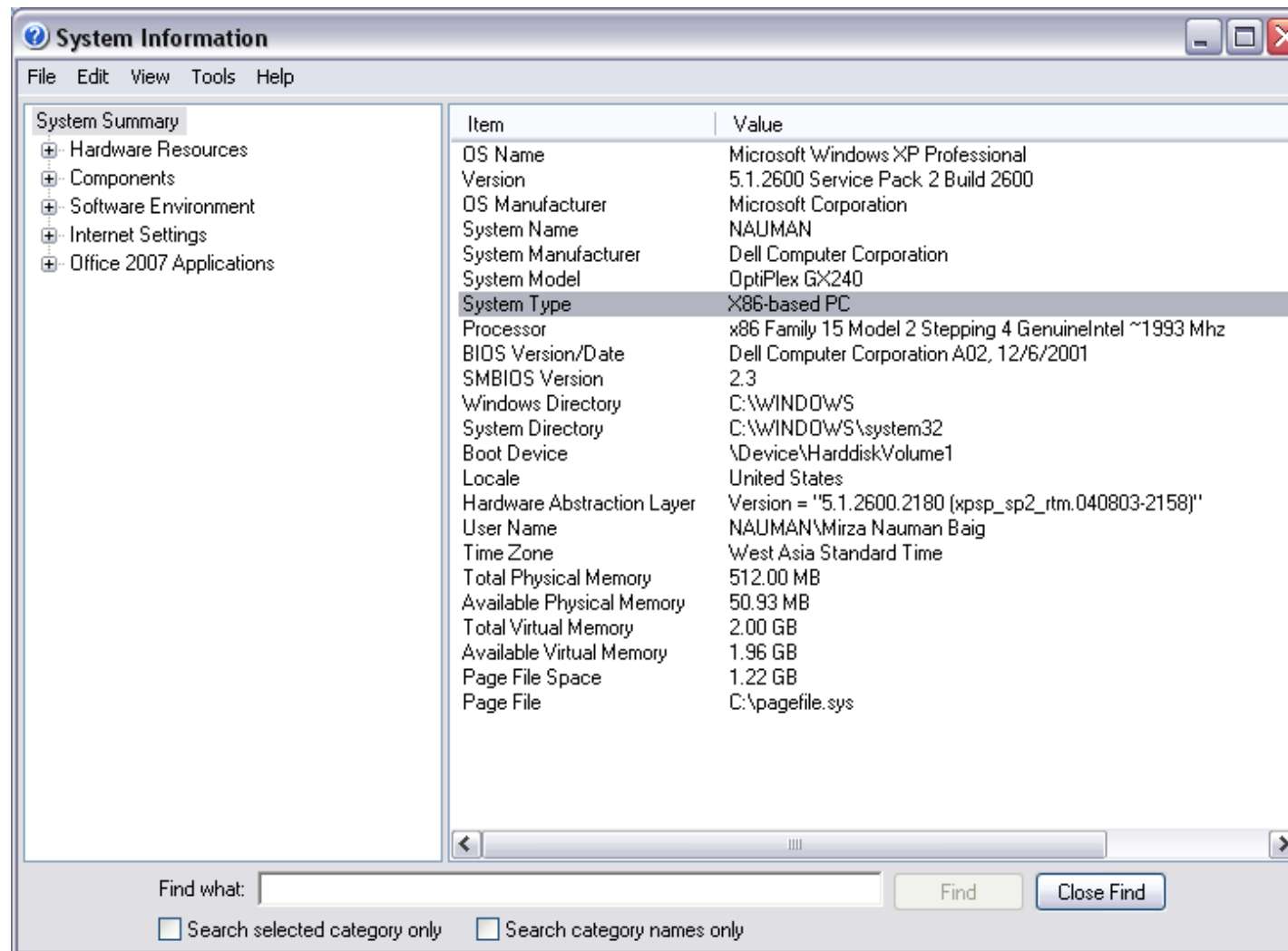
Fedora 32bit VM



Kernel requires an x86-64 CPU

```
Loading vmlinuz.....  
Loading initrd.img.....ready.  
This kernel requires an x86-64 CPU, but only detected an i686 CPU.  
Unable to boot - please use a kernel appropriate for your CPU.  
-
```

How To Determine if Your Computer Is 32-Bit or 64-Bit

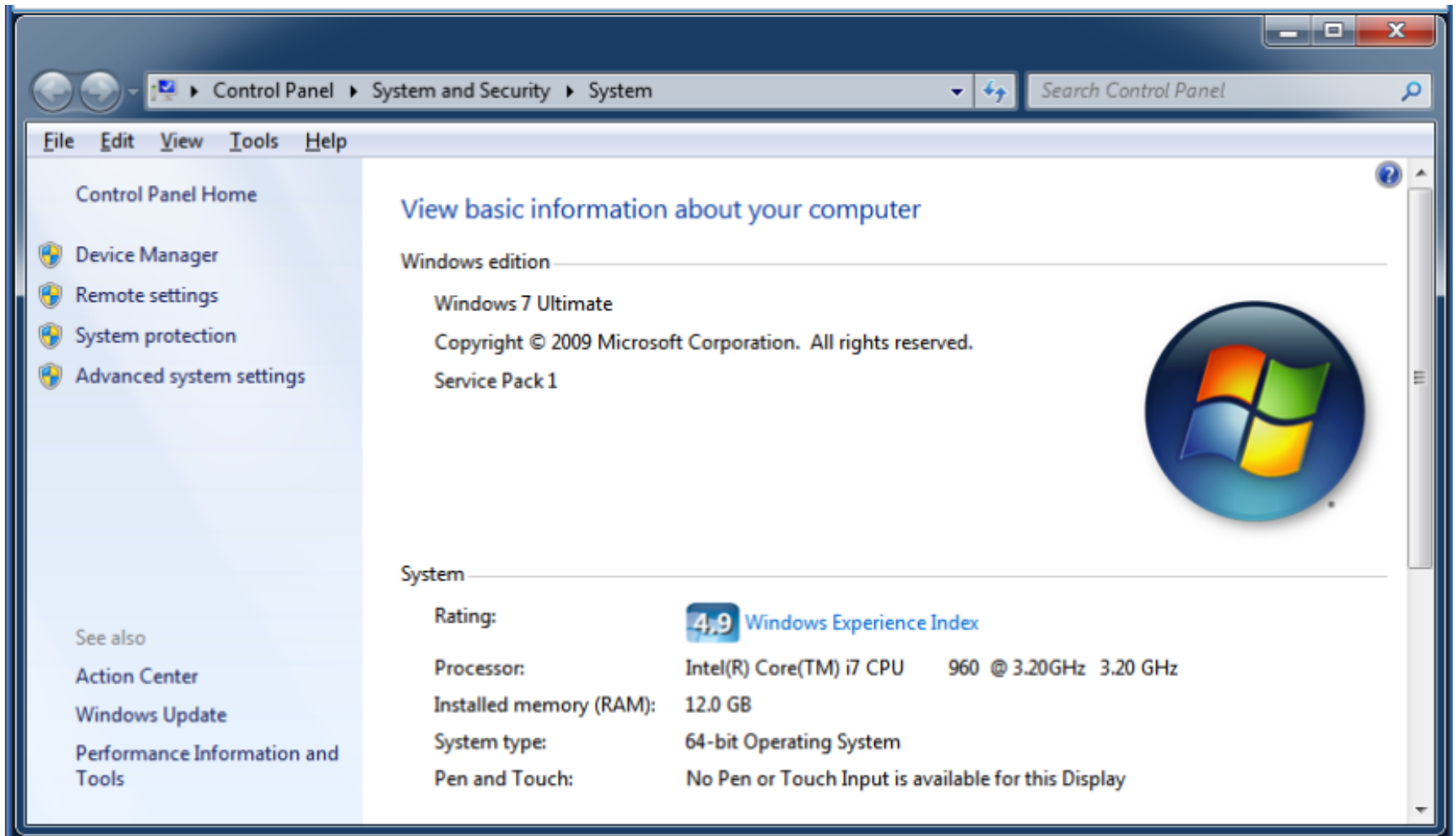


The screenshot shows the Windows System Information utility. The 'System Type' is highlighted as 'X86-based PC', indicating a 32-bit system. The window title is 'System Information' and it has a menu bar with 'File', 'Edit', 'View', 'Tools', and 'Help'. The left sidebar shows a tree view with 'System Summary' selected, and sub-items: 'Hardware Resources', 'Components', 'Software Environment', 'Internet Settings', and 'Office 2007 Applications'. The main area displays a table of system information.

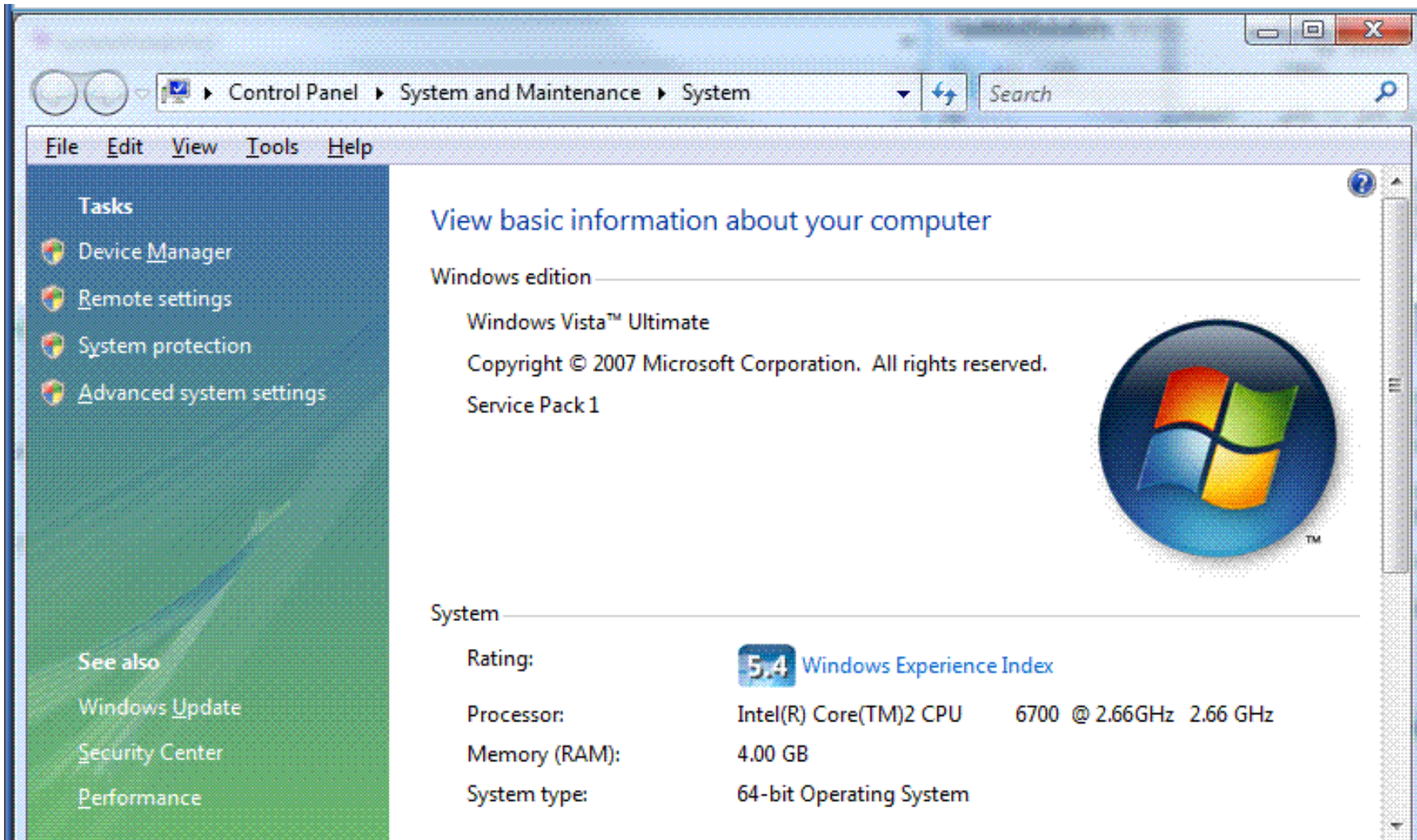
Item	Value
OS Name	Microsoft Windows XP Professional
Version	5.1.2600 Service Pack 2 Build 2600
OS Manufacturer	Microsoft Corporation
System Name	NAUMAN
System Manufacturer	Dell Computer Corporation
System Model	OptiPlex GX240
System Type	X86-based PC
Processor	x86 Family 15 Model 2 Stepping 4 GenuineIntel ~1993 Mhz
BIOS Version/Date	Dell Computer Corporation A02, 12/6/2001
SMBIOS Version	2.3
Windows Directory	C:\WINDOWS
System Directory	C:\WINDOWS\system32
Boot Device	\Device\HarddiskVolume1
Locale	United States
Hardware Abstraction Layer	Version = "5.1.2600.2180 (xpsp_sp2_rtm.040803-2158)"
User Name	NAUMAN\Mirza Nauman Baig
Time Zone	West Asia Standard Time
Total Physical Memory	512.00 MB
Available Physical Memory	50.93 MB
Total Virtual Memory	2.00 GB
Available Virtual Memory	1.96 GB
Page File Space	1.22 GB
Page File	C:\pagefile.sys

At the bottom, there is a search box labeled 'Find what:' with a 'Find' button and a 'Close Find' button. Below the search box are two checkboxes: 'Search selected category only' and 'Search category names only'.

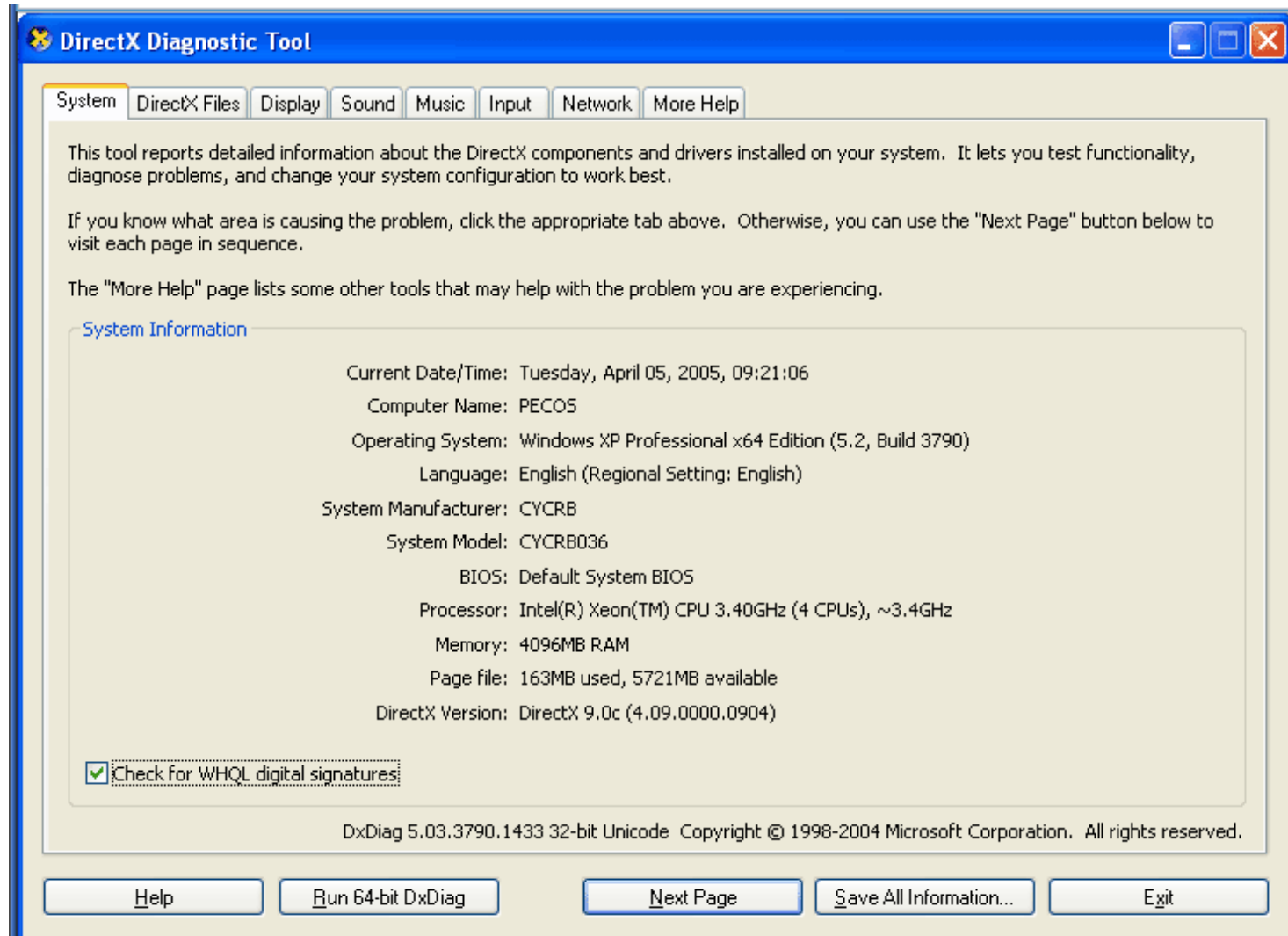
Windows 7, click **Start -> Control Panel -> System and Security -> System.**



Windows Vista users should click **Start -> Control Panel -> System and Maintenance -> System**

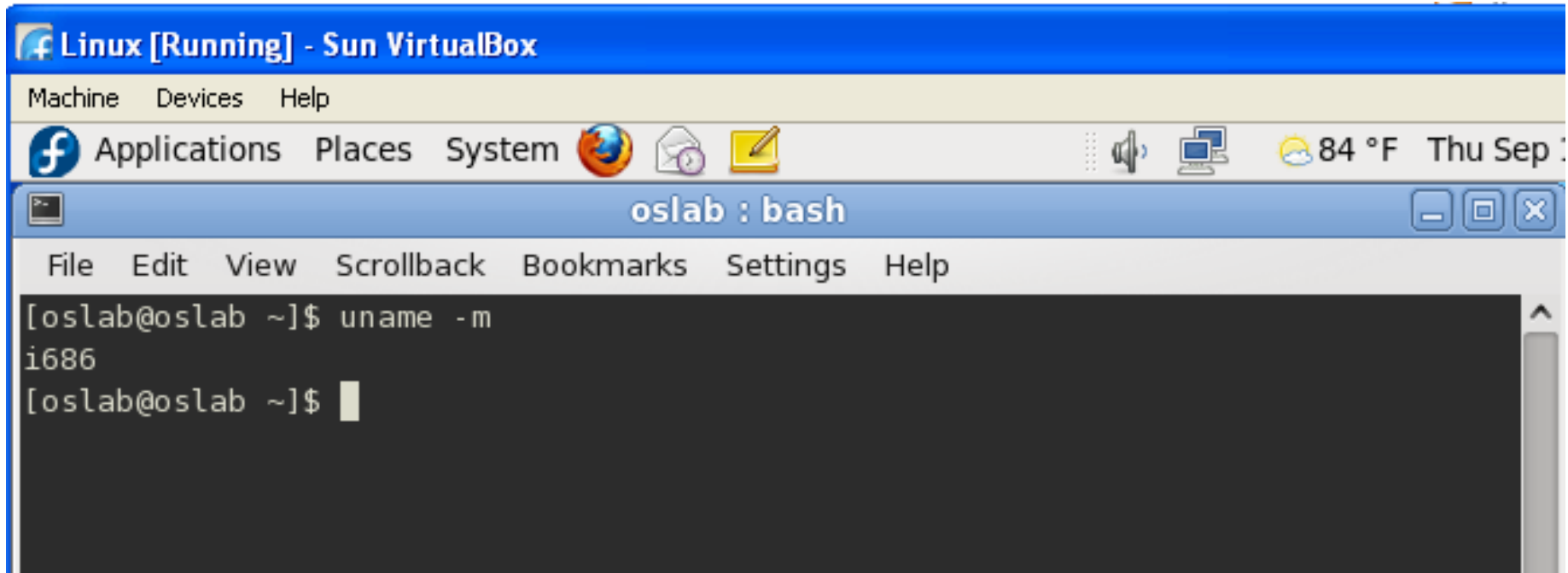


Windows XP, click **Start** -> **Run** and type **dxdiag**.



uname -m

- x86_64 when it is an kernel 64 bits
- i686 for 32 bits kernel



The screenshot shows a Linux terminal window titled "oslab : bash" running inside a Sun VirtualBox. The terminal displays the command `uname -m` and its output, `i686`. The window's title bar includes "Linux [Running] - Sun VirtualBox" and a menu bar with "Machine", "Devices", and "Help". The desktop environment features a taskbar with icons for Applications, Places, System, Firefox, Mail, and a Notepad application. The system tray on the right shows a speaker icon, a monitor icon, a weather icon indicating 84 °F, and the date "Thu Sep".

```
[oslab@oslab ~]$ uname -m
i686
[oslab@oslab ~]$
```

Differences between x86_64 and i686

- For more details
- <http://www.redhat.com/archives/rhl-list/2006-October/msg03684.html>

Lab Tasks

- Create VM settings for Fedora
- Install Fedora 12 (in E: user Data Drive)
- Check different Desktops
- Change Wallpapers
- Terminal and X Windows
 - <Ctrl><Alt><F1-F6>
Switch to the first text terminals. Under Linux you can have several (6 in standard setup) terminals opened at the same time.
 - <Ctrl><Alt><F7>
Switch to the first GUI terminal (if X-windows is running on the 7th terminal, where it typically is).
 - <Ctrl><Alt><Fn> (n=7..12)
Switch to the nth GUI terminal (if a GUI terminal is running on screen n-1).
- (login using root pass)
- Settings of Ethernet and use internet on fedora ,
- Use fedora Calculator
- Restart PC load your *.vdi and log in using Linux VM already created