Touch the Future

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Abstract- The purpose of this paper is to understand about WINDOWS 8 and have knowledge regarding the new features which are introduced by Microsoft in new versions of Windows. Windows 8 introduces significant changes to the operating system's platform, primarily focused towards improving its user experience. It takes advantage of new and emerging technologies.

DEVELOPER: Microsoft Corporation
KERNEL TYPE: Hybrid

I.   HARDWARE REQUIREMENTS

The minimum system requirements for Windows 8 are slightly higher than those of Windows 7 and differs from the other versions of Windows. The CPU must support the Physical Address Extension (PAE), NX bit, and SSE2. Windows Store apps require a screen resolution of 1024×768 or higher to run. Windows 8 requires the following hardware, at a minimum:

CPU: 1 GHz (with NX, PAE, and SSE2 support)
RAM: 1 GB (2 GB for 64-bit versions)
Hard Drive: 16 GB free space (20 GB free for 64-bit versions)
Graphics: A GPU that supports a least DirectX 9 with a WDDM driver
Processor: 1 gigahertz (GHz) or faster with support for PAE, NX, and SSE2

II.   SOFTWARE COMPLEXITY

There are three desktop editions of Windows 8 which present in two sub-editions: 32-bit and 64-bit.The 32-bit sub-edition runs on CPUs compatible with x86 architecture 3rd generation (known as IA-32) or newer, and can run 32-bit and 16-bit applications, although 16-bit support must be enabled first.16-bit applications are developed for CPUs compatible with x86 2nd generation.32-bit versions of Windows 8 support up to 4 GB of RAM.

The 64-bit sub-edition runs on CPUs compatible with x86 8th generation (known as x86-64, or x64) or newer, and can run 32-bit and 64-bit programs. 32-bit programs and operating system are restricted to supporting only 4 gigabytes of memory while 64-bit systems can theoretically support 2048 gigabytes of memory. 64-bit operating systems require a different set of device drivers than those of 32-bit operating systems.

III.   WINDOWS 8 EDITIONS

(A) Windows : Windows 8 is the basic edition of Windows for the IA-32 and x64 architectures. Windows 8 also refer to this edition as "Core". This edition contains features aimed at the home market segment and provides all of the basic new Windows 8 features including the Start screen with semantic zoom, live tiles, Windows Store, Internet Explorer 10, connected standby, Microsoft account integration, the Windows desktop and more.

(B)Windows 8 Pro : Pro is the edition of Windows 8 for the PC enthusiast and business/technical professionals. Windows 8 Pro is comparable to Windows 7 Professional and Ultimate and is targeted towards enthusiasts and business users. It includes all the features of Windows 8. Additional features include the ability to receive Remote Desktop connections, the ability to participate in a Windows Server domain, Encrypting File System, Hyper-V, and Virtual Hard Disk Booting, Group Policy as well as BitLocker and BitLocker To Go. Windows Media Center functionality will be available only for Windows 8 Pro as a separate software package.The 64-bit version of Windows 8 Pro supports up to 512 GB while the 64-bit version of Windows 8 (standard) supports up to 128 GB.Windows 8 Pro supports a maximum of 2 physical CPUs and the standard version of Windows 8 just one. In total, up to 32 logical processors are supported in 32-bit versions of Windows 8, while up to 256 logical processors are supported in 64-bit versions. It has almost all the features of Windows 8.

(C) Windows 8 Enterprise : (The Enterprise) Windows 8 Pro has geared towards enterprise customers with Software Assurance agreements. Windows 8 Enterprise provides all the features in Windows 8 Pro , with additional features to assist with IT organization . This edition was released on August 16, 2012.It boasts Remote Desktop capacities, letting you see and control other computers (and letting them control yours in turn) for giving demonstrations or remotely troubleshooting a problem.

(D) Windows RT : Windows RT previously known as Windows on ARM or WOA, is an edition of Windows 8 made specifically for ARM devices. Windows RT is meant for tablets. It will offer probably better battery life and will be much simpler to use. Windows RT is only available to hardware makers for preinstallation and only runs the software included with it or downloaded from the Windows Store. Windows RT is only available pre-installed on ARM-based devices such as tablet PCs. It includes touch-optimized desktop versions of the basic set of Office 2013 applications to users.Windows RT only runs third-party software bought from Windows Store. Desktop software that run on previous versions of Windows cannot be run on Windows RT.Windows RT has the same user interface, application programming interface and update mechanism.Unlike Windows Vista and Windows 7, there are no Starter, Home Basic, Home Premium, or Ultimate editions.

Windows 8 Pro and Windows 8 are the only two editions available for sale directly to the consumer. Windows 8 Enterprise

is the edition intended for large organizations.All three editions of Windows 8 already mentioned will be available in either 32-bit or 64-bit versions.

IV. UPGRADING COMPATIBILTY

It is possible to upgrade from an IA-32 version of Windows 7 to an IA-32 version of Windows 8. An x64 version of Windows 7 can only be upgraded to an x64 version of Windows 8. It is possible to upgrade Windows XP SP3 or Windows Vista to Windows 8 Pro. The retail package entitled Windows 8 Pro Upgrade is restricted to upgrading a computer with licensed Windows XP SP3, Windows Vista or Windows 7. There is no upgrade path for Windows RT, as it is the only version of Windows that currently supports the ARM architecture.

V. WINDOWS 8 UPDATES

There is no service pack available for Windows 8. Instead of releasing a Windows 8 SP1 as Microsoft did with previous versions of Windows. Microsoft will release large, regular updates to Windows 8, incrementing the version number each time.Now we have Windows 8.1 (originally codenamed Windows Blue) after Windows 8 . This update will be free to existing Windows 8 users and will bring feature changes, as well as fixes, to the operating system.Windows 8.1 was launched at the Microsoft Build Developer Conference in San Francisco and when available the final version will be available as a free downloadable Windows 8 update.

VI. PRICING OF WINDOWS 8 VERSIONS

Windows 8 Professional Upgrade - $69.99
Windows 8 Pro Pack – Product Key Card (no media) - $69.99
Windows 8 (Full Version) – OEM $99.99

Windows 8 Pro (Full Version) – OEM $139.99
The both OEM products are available in both 32-bits and 64-bits.

VII. FEATURES OF WINDOWS 8

(A) The Windows 8 Desktop : The Start screen of Windows 8 is very innovative and dynamic.We still have the familiar desktop, where you can do everything that you're used to doing with Windows.As soon as you turn on the PC you are shown with a screen and that screen is known as THE LOCK SCREEN. Now, here you have no indication of what to do next.So, to remove this screen we can press any key or can press anywhere. After this we are shown with another screen after the lock screen swipes away.Another screen is known as the Login Screen. This is known as the login screen because here we need to give our password or kind of prove our identity to the computer before using it.

The first thing you see upon logging into Windows 8 is tile based interface or Metero UI. At first glance, the UI seems to go intuitively with touchscreen devices. The grid layout seems to facilitate such interactions. You can customize your grid by adding and arranging the applications.The coolest thing of Windows 8 that allows you to personalize your desktop with the organization of the apps.It is able display real-time information through them.We can see that how the tiles update information.Live tiles on your Start screen animate with the latest information. Status updates, weather forecasts, Tweets, and more—you'll see live updates before you open a single app.In one glance over your tiles, you can have access to all that you need to be notified and take action on those which are urgent.The desktop you're used to—with its familiar folders and icons—is still here and better than ever, with a new taskbar and streamlined file management.
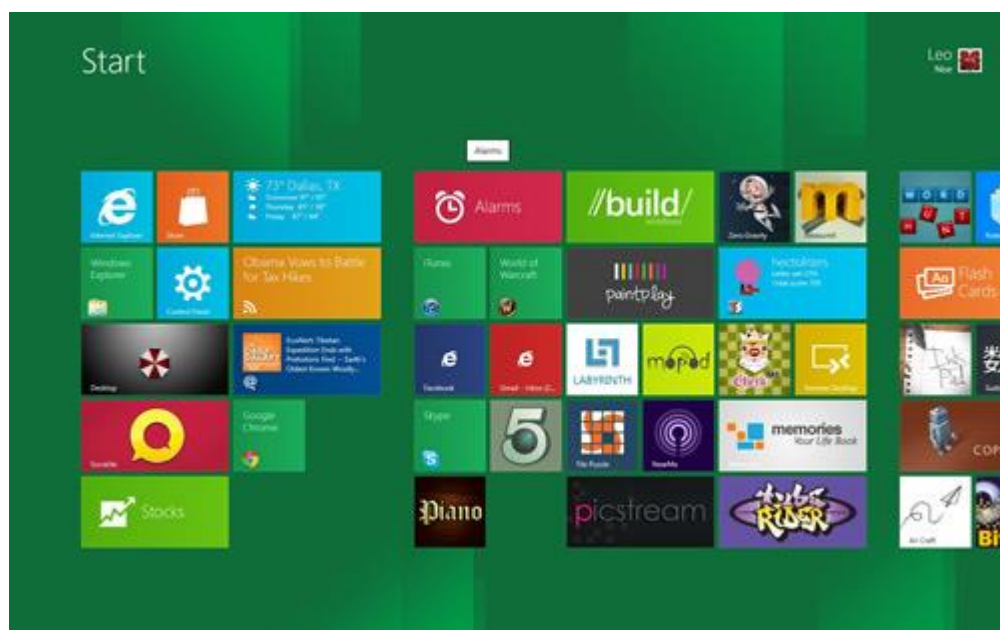
(B) Changing the tiles size : The application tiles are shown on the desktop. And we can change there size according to our comfort and requirement.Just right click on the particular tile you want resize and than appears a box at the bottom of the screen which has certain options. And from all those options one will be Larger/Smaller which helps us to change the size of the tile.

Here, the tile which is pointed is the larger one and we can change its size to smaller one by clicking on the smaller option. The messaging application shown here is of smaller size and after the change the weather application will too change into the smaller size.

(C) Search Function : The search function has also improved in Windows 8.You can also search within apps that utilize Windows 8′s search function.If you take the mouse to the right-top corner or at the botton-right corner thensearch pane pops out. And the search pane that pops out on the right of your desktop will contain the list of apps which you can conduct the search in. For instance, if you're looking for the emails sent by a particular contact, typing that name and clicking on the email app would allow you to search from within.
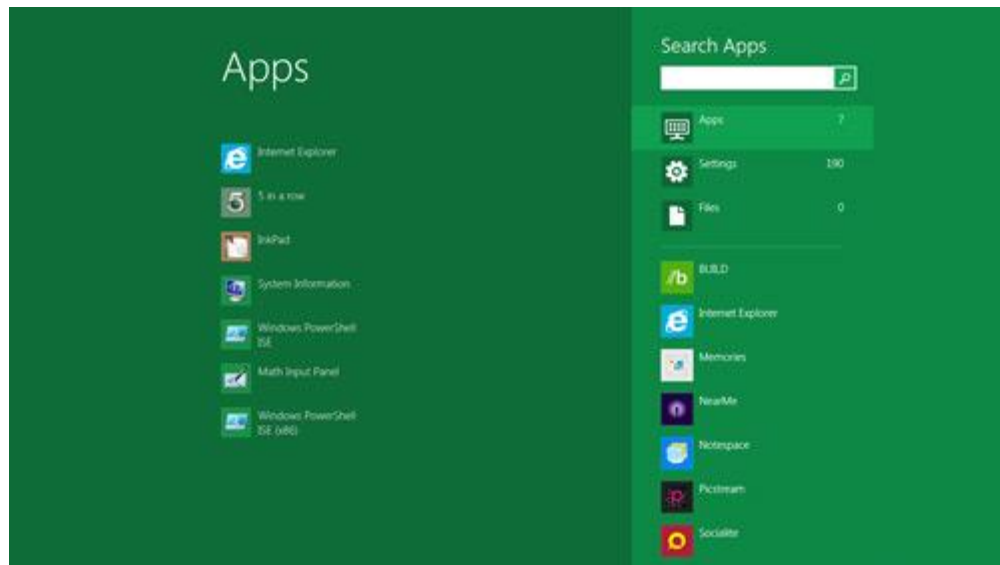
Here, the box below the search apps shows the space where we write the name of the application we are searching for.

(D) Charms : Charms is a new implementation of the traditional Windows start bar. Charms can also be used to quickly configure settings for individual apps. On an ordinary non-touch PC, charms are accessed by dragging the mouse to the bottom-left corner of the screen, to the same spot as the old Windows start button. On a tablet, you swipe from the right side of the screen to bring up charms.You can also use shortcut key for the charm box to appear on screen and the short cut key is windows key plus the letter C(⊞ + C).This way charm box can appear by using the keyboard. The charms sidebar offers five sets of options, supporting both app-specific settings and system settings such as volume and brightness. The options include Start, Search, Share, Devices, and Settings.

•Start option - The Start option returns the user to the home screen. You can always get back to the Start screen by using the Start charm (⊞).

•Search option - The search button helps us to search for the required applications.We search across apps, files, and the web.

•Share option - The share option helps us to share the apps.Under the share option, the users can see social network sharing apps.You can Share with your friends instantly. When you're in a specific app, you can use the Share charm (⊞ +H) to share files, photos, or webpages with people you know. Select the item you want to share, open the charms, and then tap or click Share.

•Devices option -The devices option present a list of connected devices. You'll mainly use the Devices charm (Windows logo key+K) to set up printers and print documents, but you can also use it to sync info with your phone and stream video to your wireless TV. Open the charms and then tap or click Devices to see all the devices you've connected to your PC at any time.
•Settings option - The settings option helps us to change the settings of the PC. The volume,brightness, connection of PC to

internet and all other things are done by using the settings option present in the Charm Box.

Here, the box which has been circled is known as Charm Box. On the top is search option then Share,Third is Start option,then devices and lastly settings option is present.

(E) Picture Password : We all use password to protect our PC i.e. for the security of our system. We are always told that the password should be a good one so that it cannot be gussed by anyone and any other person cannot access your system. So, in Windows 8 we have the concept of picture password. As the name suggests the we will be having a picture and according to out wish we can choose three points on the picture and everytime when you login to your computer you need to tell those points with the help of cursor, then only you can have access to the system.Even if you forget a single point then too you cannot have access to the PC.

Let us suppose that we have the above picture so we need to locate three points by tapping or clicking with the help of mouse and tell those points to the system like we do while we are typing in the password.

(F) Switch apps : If we have opened up many applications and all of them are running at the same time and we wish to move from one application to the other application then this feature is also present in Windows 8. We just need to take our sursor to the top-left corner of the screen and then click. Then we will see the other application which was opened after the one which we were using before.
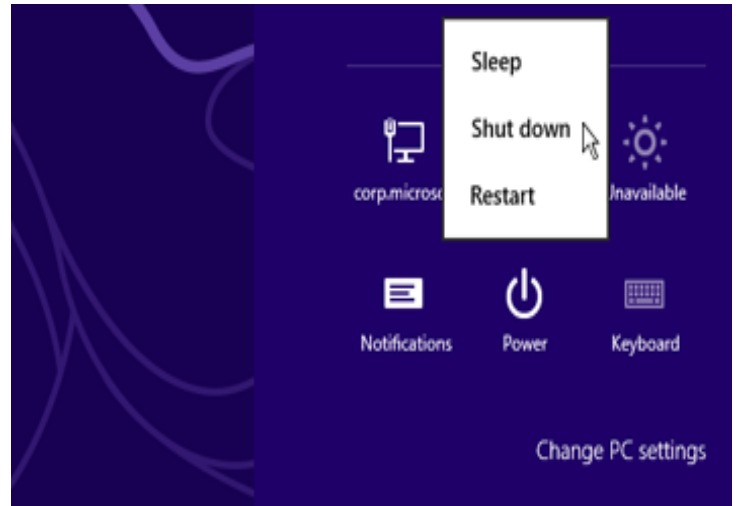
Here, on the left side in the figure we can see a black box contaning three different boxes. Now, these three different boxes are three different applications which are running at that particular moment. So, we can change by clicking on the top-left corner of the screen until the application which we want comes on the screen.

(G) Shut down, lock your PC or sign out : When you're done using your PC for a while, you can sign out, lock it, put it to sleep, or shut it down.In Windows 8, there's really no need to shut down your PC completely. Instead, you can put it to sleep. This uses very little power, your PC starts up faster, and you're instantly back to where you left off. You don't have to worry that your battery will be drained because Windows automatically saves all your work and turns off the PC if the battery is too low.

To shut down your PC -
•Close any desktop apps you have open.
•Swipe in from the right edge of the screen, and then tap Settings.
•Tap or click Power, and then tap or click Shut down.

To lock your PC-
Locking your PC is a good option if you'll be back soon. You'll have to just enter your password when you come back, which helps to keep your work more secure. The apps you were using will still be running, and everything will be the same the way you left it. Here's how to lock your PC:
•Open Start by swiping in from the right edge of the screen (or if you're using a mouse, pointing to the upper-right corner of the screen and moving the mouse pointer down), and then tapping or clicking Start.
•Tap or click your account picture in the upper-right corner, and then tap or click Lock.

To unlock your PC, just swipe up from the bottom edge of the screen (or press any key if you're using a keyboard) and then sign in.

To sign out your PC -
If someone else will be using your PC after you i.e. if you are sharing your PC, then signing out is a good option which will close all your apps which are running but will not shut down the PC. The other user can sign in into his account. Here , are steps for how to sign out of your PC :
•Open Start by swiping in from the right edge of the screen, and then tapping or clicking Start.
•Tap or click your account picture in the upper-right corner, and then tap or click Sign out.
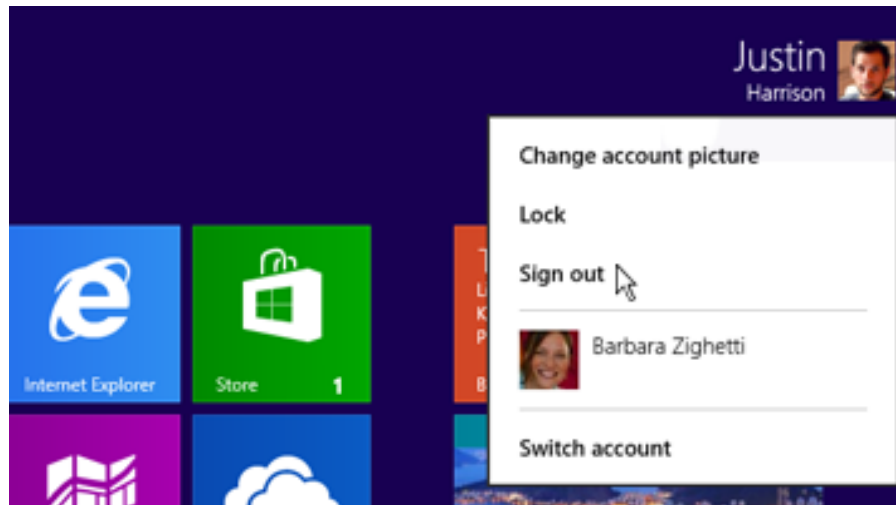
(H) <u>Apps</u> : Windows 8 has many built-in apps.You will see tiles for them on your start screen as you login to your PC. Like,

•People : Helps you to stay connected with everyone and see real-time updates from your email accounts, and Facebook, Twitter, and LinkedIn.

•Mail :It shows you mails and helps you to send messages from your accounts—including Yahoo! Mail and Outlook.com—all in one inbox.

•Photos : It helps you to see and share your photos and videos in one place, whether from Facebook, Flickr, SkyDrive, or another PC.

•Music :We can   Listen to free streaming songs and get personalized music recommendations.We can also share our playlists and download songs we love.

•News : Customize your news, and see it in a dramatic, photo-rich format. See breaking updates and stay up to date on what's happening around the world.

•Weather : Shows us weather reports.

•Sports : Gives us all the latest updates regarding sports.

You can also search or browse for apps in Windows Store.

(I) <u>Change start screen colour</u> : We can also change the background and colour of our start screen.

Just swipe in from the right edge of the screen, tap Settings, and then tap Change PC settings.Tap or click Personalize, and then tap or click Start screen.Now, choose the colour according to your liking.
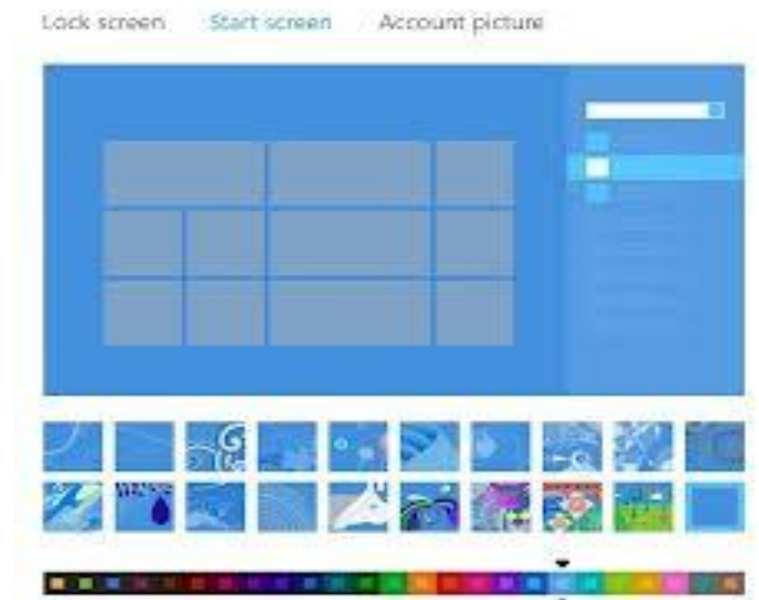
It helps us to change the Lock screen, Start screen and account picture. And the steps to do this are same as for the start screen.

(J) <u>Connect your Microsoft Account</u> : You can choose to sign in to your PC without a Microsoft account, but you need a Microsoft account to fully experience all these benefits.To connect to Microsoft Account -

•Swipe in from the right edge of the screen, tap Settings, and then tap Change PC settings.

•Tap or click Users, tap or click Sign in with a Microsoft account, and then follow the instructions.

•Add an account picture to go along with your sign-in info.

(K) <u>Snapping between apps</u> : In Windows 8, we can snap between two apps and can see the performance of both the apps at the same time. Now, it's easy to run two apps side-by-side.
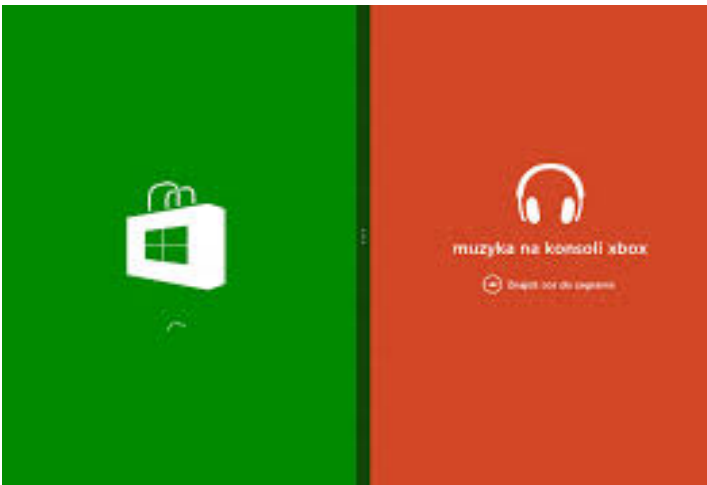
Swipe in from the left edge of the screen. As you do so, the previous app in the back stack will appear as a thumbnail image under your finger. Then, select the app you'd like to snap from the Switcher list and drag its thumbnail to the right. Then side-by-side Snap bar will appear.To snap the app to the left side of the screen, simply release the thumbnail (by raising your finger off the screen). To snap it to the right, drag the thumbnail to the right side of the screen and release it when the side-by-side Snap bar appears on that side of the screen.

(L) Better support for multiple monitors : Windows 8 also brings increased support for multiple monitors.It has capabilities for extending the taskbar across two PCs, without any need for third-party apps. You can also stretch wallpaper across two monitors, or display the Start screen on one PC and the desktop on the other.It's also easy to switch between multiple monitors. The primary monitor has a start button, and the secondary monitor has a switcher button. Clicking or tapping on the switcher button will swap it out for the start button, allowing you to turn the secondary monitor into the primary one.

(M) <u>ISO Support</u> : With Windows 8, native ISO mounting support is included — just double-click and go. Windows 8 can launch ISOs (and VHD files) natively.Double-click on a downloaded or ripped ISO to view its contents; right-click and choose 'Mount' to run it.
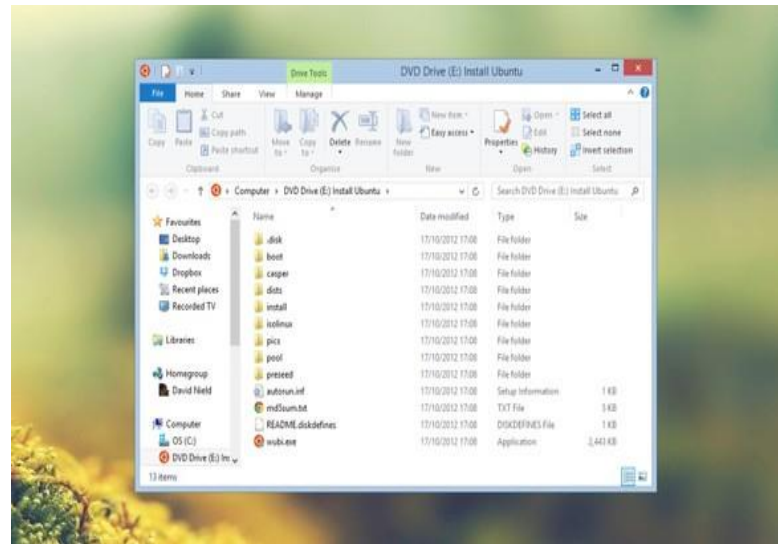

(N) <u>The secret start menu</u> : We have start menu as it was in other versions of windows. To get the start menu:

• Right-click in the lower-left corner to bring up a stripped-down Start menu.

•Moving your mouse cursor down to the bottom-left of the screen and left-clicking switches to the tiled Start page... but if you right-click instead, you'll be met with a menu linking to key areas of the operating system, including Control Panel, the command prompt and the Task Manager.

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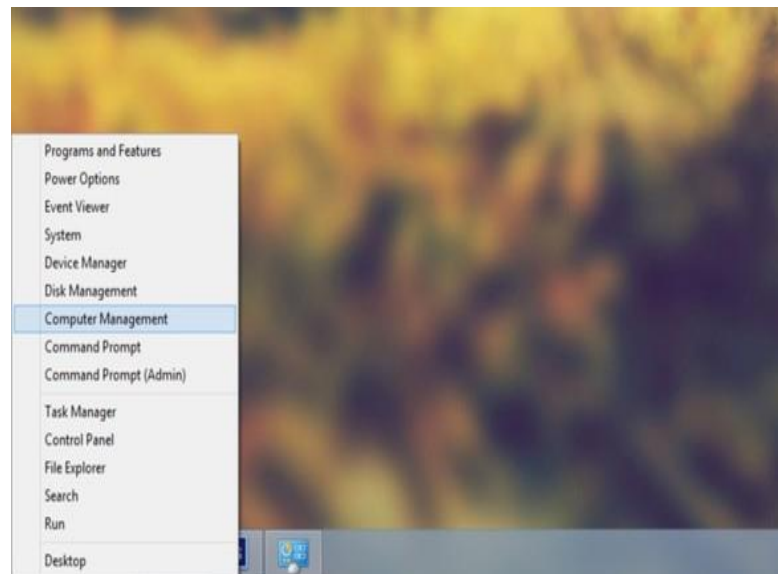
VIII. WINDOWS 8 SHORTCUT KEYS

KEYS	DESCRIPTION
i.▦ + D	Show Desktop
ii.▦ + C	Open charms menu
iii.▦ + F	Charms menu - Search
iv.▦ + H	Charms menu - Share
v.▦ + K	Charms menu - Devices
vi.▦ + I	Charms menu - Settings
vii.▦ + Q	Search for installed apps
viii.▦ + W	Search settings
ix.▦ + E	Launch Windows Explorer Window
x.▦ + L	Lock PC and go to lock screen
xi.▦ + T	Cycle through icons on Taskbar
xii.▦ + X	Advanced Window Settings Menu
xiii.▦ + M	Minimize all window
xiv.▦ + R	Open run dialog box
xv.▦ + Up Arrow	Maximize Current window
xvi.▦ + Down Arrow	Minimize current window
xvii.▦ + Print Screen	Takes a print and saves
xviii.▦ + Pause Break	Display System properties
xix. ▦ + F1	Open windows help and support
xx.▦ + V	Cycle through notifications
xxi. ▦ + P	Choose secondary display modes
xxii.▦ + U	Open ease of access centre
xxiii.▦ + Enter	Open narrator
xxiv.▦ + +	Zoom in using Magnifier
xxv.▦ + -	Zoom out using magnifier
xxvi.▦ + Escape	Exit Magnifier

IX. CONCLUSION

Windows 8 marks Microsoft's attempt to reinvent the venerable operating system with giant, touch-friendly tiles replacing traditional desktop icons, and full-screen apps taking the place of resizable windows. However, Microsoft has also retained the classic Windows desktop, and most programs designed for Windows XP, Vista or 7 will continue to run just as they always have. Certain basic Windows settings are also only accessible only from the desktop. This results in something of a schizophrenic user experience. If you're on a touchscreen device, such as a tablet or Windows 8 laptop, you may find yourself gravitating toward the tiled Windows 8 interface and apps, but you'll be forced back to the desktop any time you need to dig into the Windows file system.

REFERENCES

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Also includes net search and many other sites.........

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