

# Computer Basics

## ABOUT THIS CLASS

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This class is designed to provide a basic introduction to using a PC computer. Throughout the class, we will orient ourselves to the basic layout and functions of a PC computer as well as create, edit, and save a document in an organized folder system. It is impossible in the short time we have to become proficient in even just the basics of using a PC computer, but it is my hope that this class will provide a good foundation for your future computer endeavors!

### Course Objectives

By the end of this course, you will:

- ✓ Be familiar with basic computer **hardware components**, like the **keyboard** and **mouse**.
- ✓ Understand the difference between **PCs** and **Macs** (a.k.a. **Operating Systems**)
- ✓ Be oriented to the **Desktop**.
- ✓ Be familiar with **windows**.
- ✓ Be able to create, edit, and organize **files** and **folders**.
- ✓ Be familiar with some **keyboard short cuts** and **right-click functions**.
- ✓ Be able to **Start up, Log-On, Log-off, and Shut Down** the computer.

This booklet will serve as a guide as we progress through the class, but it can also be a valuable tool for when you are working on your own. Any class instruction is only as effective as the time and effort you are willing to invest in it. I encourage you to practice soon after we have completed the class. There will be additional computer classes in the near future, and I am always available for questions during Tech Tuesdays and Thursdays (call to confirm the times) and by appointment.

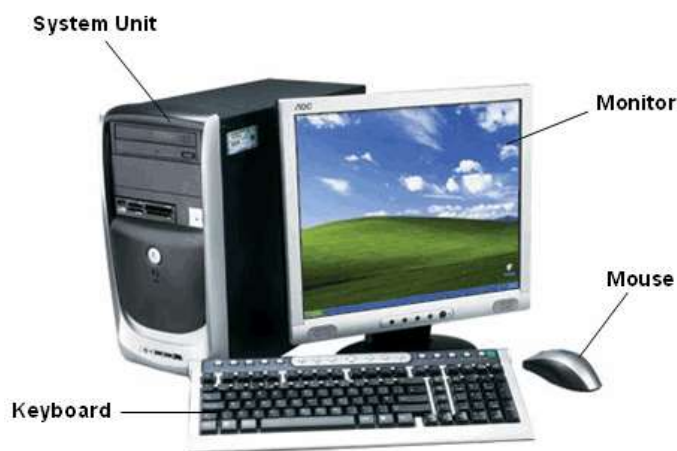
Remember that the library has many additional books and resources to help you. Never hesitate to ask any of the Sisson Library staff to locate some computer resources for you.

**Meg Wempe, Adult Services Librarian**



## Computer Hardware

**Computer hardware** is the collection of physical elements that comprise a computer system.<sup>1</sup> There are many physical components to a computer, but for our purposes we want to get to know these:



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**System Unit or “CPU”:** This hardware is what many people think of as *the* computer. Inside is the hard drive, which is where all of your computer’s information is stored and saved. For most desktop computers, this unit is separate from the other hardware components. For laptop computers, the unit is combined with the monitor (a.k.a. screen) and the keyboard.

**Keyboard:** This part is a typewriter-style keyboard, which uses an arrangement of buttons or keys, to act as mechanical levers or electronic switches.<sup>3</sup> Simply put: it is how you type on your computer.

**Monitor:** This piece is the computer screen.

**Mouse:** This part consists of an object held under one of the user's hands, with one or more buttons. It sometimes features other elements, such as "wheels", which allow the user to perform various system-dependent operations, or

<sup>1</sup> From: [http://en.wikipedia.org/wiki/Computer\\_hardware](http://en.wikipedia.org/wiki/Computer_hardware)

<sup>2</sup> From: <http://www.warepin.com/basic-computer-hardware-components-2/>

<sup>3</sup> From: [http://en.wikipedia.org/wiki/Computer\\_keyboard](http://en.wikipedia.org/wiki/Computer_keyboard)

extra buttons or features that can add more control or dimensional input. The mouse's motion typically translates into the motion of a pointer on a display,<sup>4</sup> which is often called a **cursor**.

**Power Source:** This is what powers your computer and is plugged into a wall socket.

**Peripherals:** A computer peripheral is any external device that provides input and output for the computer. For example, a keyboard and mouse are input peripherals, while a monitor and printer are output peripherals.<sup>5</sup> It may also include an external hard drive, a DVD player (if the computer or laptop doesn't have one) and the like.

## Operating System

**Definition:** An operating system (OS) is a set of programs that manage computer hardware resources and provide common services for application software. The operating system is the most important type of system software in a computer system.<sup>6</sup>

### PC (Microsoft) vs. Macintosh (Apple)

**PC:** Stands for **Personal computer**. PCs are what most of us use on a daily basis for work or personal use. A typical PC includes a system unit, monitor, keyboard, and mouse. Most PCs today also have a network or Internet connection, as well as ports for connecting **peripheral devices**, such as digital cameras, printers, scanners, speakers, external hard drives, and other components.

While PC stands for **personal computer**, the term can be a bit ambiguous. This uncertainty is because Macintosh computers are often contrasted with PCs, even though Macs are also technically PCs. However, Apple itself has used the term **PC** to refer to **Windows-based** machines, as opposed to its own computers, which are called **Macs**.<sup>7</sup>

**Mac:** The **Macintosh**, or **Mac**, is a series of personal computers (PC) designed, developed, and marketed by **Apple Inc.** Apple facilitates all aspects of its hardware and creates its own operating system that is pre-installed on all Mac

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<sup>4</sup> From: [http://en.wikipedia.org/wiki/Computer\\_mouse](http://en.wikipedia.org/wiki/Computer_mouse)

<sup>5</sup> From: <http://www.techterms.com/definition/peripheral>

<sup>6</sup> From: [http://en.wikipedia.org/wiki/Operating\\_system](http://en.wikipedia.org/wiki/Operating_system)

<sup>7</sup> From: <http://www.techterms.com/definition/pc>



computers. This is in contrast to most IBM PC compatibles, where multiple sellers create and integrate hardware intended to run another company's operating software. Apple exclusively produces Mac hardware, choosing internal systems, designs, and prices.<sup>8</sup>

**\*\*\* We are using a “PC” running the Windows 7 operating System \*\*\***

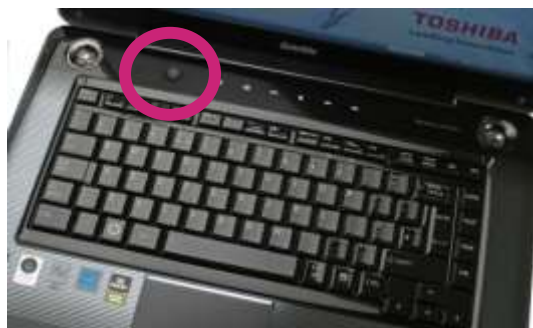
## Turn On & Log-In

**Turning on the computer:** look for a button with this symbol:



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On a **laptop**, the power button is usually located above the keyboard and below the screen:



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On a **desktop**, the power button is located on the **system unit**:

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<sup>8</sup> From: <http://en.wikipedia.org/wiki/Macintosh>

<sup>9</sup> From: <https://encrypted-tbn0.google.com/images?q=tbn:ANd9GcS5NFmbVQfdFatELt22J6rIg0Hgnd52azEGA2XnunbLIHXmneB>

<sup>10</sup> From: [http://static.trustedreviews.com/e20b81%7C709b\\_10743-img9528s.jpg](http://static.trustedreviews.com/e20b81%7C709b_10743-img9528s.jpg)



11

**Logging-In:** Select your **user profile** and enter the **password** (if necessary).



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**User Profile**

**User Profile**

<sup>11</sup> From: [http://di1-1.shoppingshadow.com/images/pi/34/6d/19/111669808-260x260-0-0\\_dell+refurbished+g5assembly+front+bezel+with+power.jpg](http://di1-1.shoppingshadow.com/images/pi/34/6d/19/111669808-260x260-0-0_dell+refurbished+g5assembly+front+bezel+with+power.jpg)

<sup>12</sup> From: <http://www.windows7hacker.com/wp-content/uploads/2011/12/image47.png>



## Using a Mouse

**Definition:** This consists of an object held under one of the user's hands, with one or more buttons. It sometimes features other elements, such as "wheels", which allow the user to perform various system-dependent operations, or extra buttons or features that can add more control or dimensional input. The mouse's motion typically translates into the motion of a pointer on a display,<sup>13</sup> which is often called a **cursor**.

### Left vs. Right Button

Most computer mice have at least two mouse buttons. When you press the left one, it is called a left click. When you press the one on the right, it is called a right click. By default, **the left button is the main mouse button**, and is used for common tasks such as **selecting objects and double-clicking**.

The **right mouse button is often used to open contextual menus**, which are pop-up menus that change depending where you click. For example, if you right click on the desktop, you may see a menu pop up that includes "Change View Options" and "Change Desktop Background." If you right click on a folder, the menu might include options such as "Open" and "Properties." Certain programs, such as video games, may use the right click for other functions, but most programs use the right click to open contextual menus.<sup>14</sup>

### Single vs. Double Click

There's not much logic in deciding whether you should **click once or twice** with your mouse. The more you use a computer, the more you will come to know how best to click. That said, here are some rules of thumb for single vs. double-clicking:

**Rule #1:** Don't double-click in a Web browser. Links, buttons, tabs, toolbar icons, and everything else you're likely to encounter in your browser require one click and one click only. If you double-click, say, an e-mail address, you'll end up with two mail windows.

**Rule #2:** Don't double-click the quick-launch program icons in your Windows taskbar (you know, the ones to the right of the Start button). Part of what makes these "quick" is that they require only one click. In fact, don't double-click anything in the taskbar.

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<sup>13</sup> From: [http://en.wikipedia.org/wiki/Computer\\_mouse](http://en.wikipedia.org/wiki/Computer_mouse)

<sup>14</sup> From: <http://www.techterms.com/definition/rightclick> (edited)

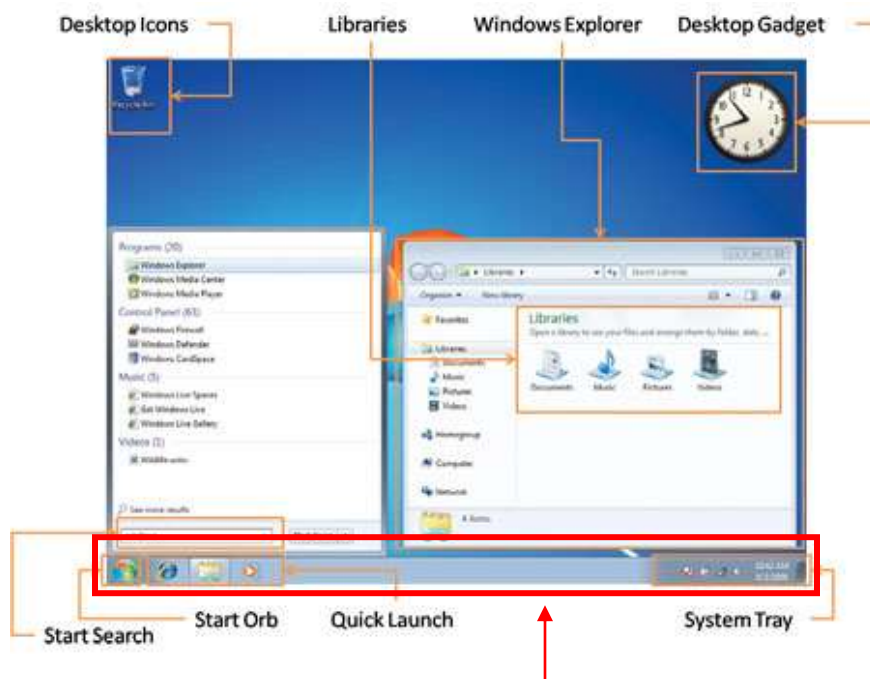


**Rule #3:** Do double-click program icons on your desktop and files/folders you want to open. And that's it. You'll rarely ever need to double-click anything else in Windows.<sup>15</sup>

There are mouse tutorials available online if you'd like to learn all the ins and outs of a mouse. One that be very helpful and is in-depth comes from the Palm Beach County Library, and is found at <http://www.pbclibrary.org/mousing/>.

## Computer Desktop (Windows 7)

**Definition:** A computer desktop consists of pictures, called icons, which show cabinets, files, folders, and various types of documents (that is, letters, reports, pictures). You can arrange the icons on the electronic desktop just as you can arrange real objects on a real desktop -- moving them around, putting one on top of another, reshuffling them, and throwing them away.<sup>16</sup> \*\*Not to be confused with a **desktop computer**, which is a type of computer (**desktop** vs. **laptop**).



<sup>15</sup> From: [http://www.pcworld.com/article/187271/raise\\_your\\_windows\\_iq\\_when\\_to\\_singleclick\\_when\\_to\\_doubleclick.html](http://www.pcworld.com/article/187271/raise_your_windows_iq_when_to_singleclick_when_to_doubleclick.html)

<sup>16</sup> From: <http://www.webopedia.com/TERM/D/desktop.html>

## Task Bar

**Icon:** A desktop **icon** is a small picture or symbol on the desktop that represents a program, file, folder, or device.<sup>17</sup> To open a program, **double-click** on the **icon**.

**Start Menu (or "Orb"):** The **Start Menu** is the main gateway to your computer's programs, folders, and settings. It's called a menu because it provides a list of choices, just as a restaurant menu does. And as "Start" implies, it's often the place that you'll go to start or open things.

Use the Start menu to do these common activities:

- ✓ Start programs
- ✓ Open commonly used folders
- ✓ Search for files, folders, and programs
- ✓ Adjust computer settings
- ✓ Get help with the Windows operating system
- ✓ Turn off the computer
- ✓ Log off from Windows or switch to a different user account<sup>18</sup>

**Taskbar:** The Windows interface includes a special application desktop toolbar called the taskbar. You can use the taskbar for such tasks as switching between open windows and starting new applications. The taskbar includes the following:

- ✓ Start menu
- ✓ Quick Launch

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<sup>17</sup> From: <http://www.linfo.org/icon.html>

<sup>18</sup> From: <http://windows.microsoft.com/en-US/windows-vista/The-Start-menu-overview>





- ✓ Taskbar buttons
- ✓ Toolbars (optional)
- ✓ Notification area (a.k.a “System Tray”)<sup>19</sup>

**Window (or “Windows Explorer”):** **Windows Explorer** is a file manager application that is included within the Microsoft Windows operating system.<sup>20</sup> Any time you wish to access a file, you will first open a **Window**.

You can change the size of windows as well as maximize (make the window bigger) and minimize (hide the menu).

To **minimize** the window click on this button in the upper-right corner of the window:



To **maximize** the window click on this button in the upper-right corner of the window:



To **close** the window, click on the **X** in the upper-right corner of the window:



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<sup>19</sup> From: [http://msdn.microsoft.com/en-us/library/windows/desktop/cc144179\(v=vs.85\).aspx#tbnotify\\_About](http://msdn.microsoft.com/en-us/library/windows/desktop/cc144179(v=vs.85).aspx#tbnotify_About)

<sup>20</sup> From: [http://en.wikipedia.org/wiki/Windows\\_Explorer](http://en.wikipedia.org/wiki/Windows_Explorer)

## Files & Folders

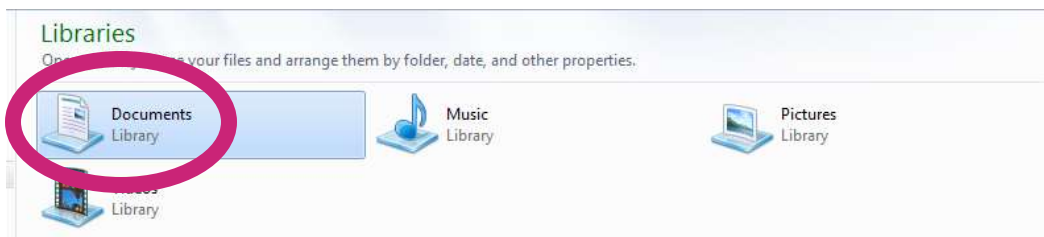
**Definition:** A **file system** (or **filesystem**) is a means to organize data expected to be retained after a program terminates by providing procedures to store, retrieve and update data, as well as manage the available space on the device(s) which contain it. A file system organizes data in an efficient manner and is tuned to the specific characteristics of the device. There is usually a tight coupling between the operating system and the file system. Some filesystems provide mechanisms to control access to the data and metadata. Ensuring reliability is a major responsibility of a filesystem.<sup>21</sup>

### Creating a Folder:

- ✓ Launch **Windows Explorer**:



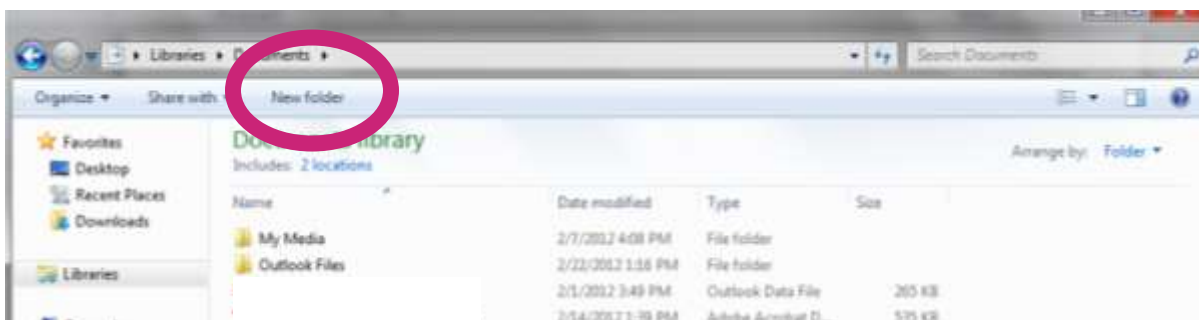
- ✓ Double-click on the **Documents** library:



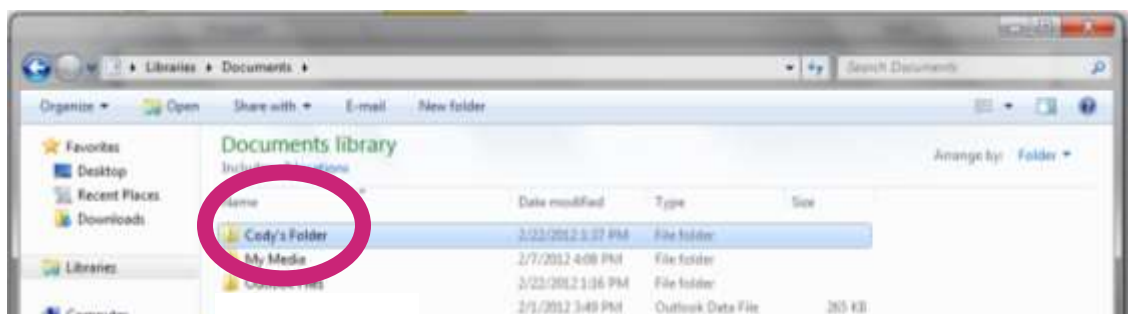
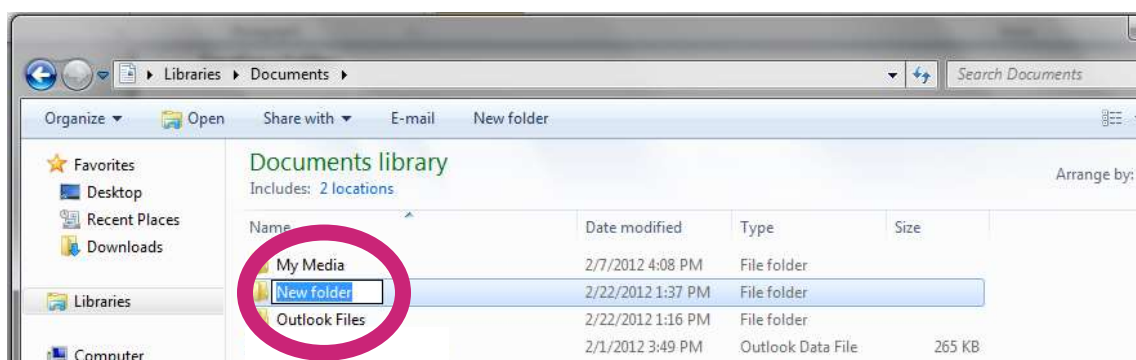
- ✓ Click on **New Folder**:

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<sup>21</sup> From: <http://en.wikipedia.org/wiki/Filesystem>



✓ Type the name of your folder and click enter:

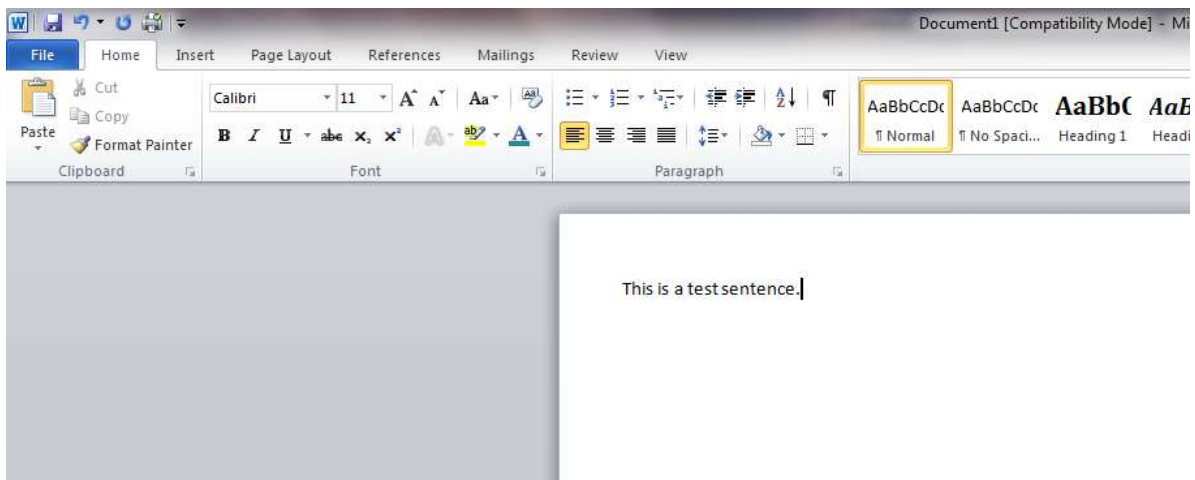


### Saving a File to your new folder:

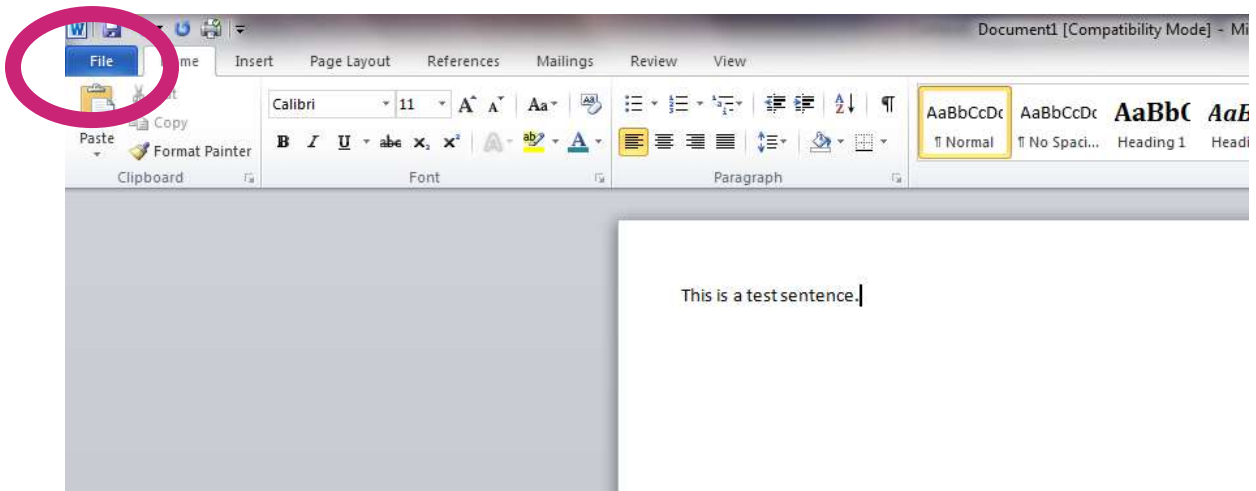
- ✓ Open Microsoft Word:



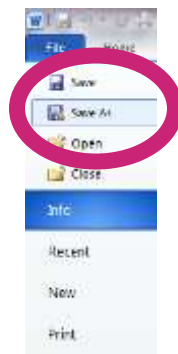
- ✓ Type a brief sentence:



- ✓ Save the file by clicking on **File**:



✓ Then click **Save As:**

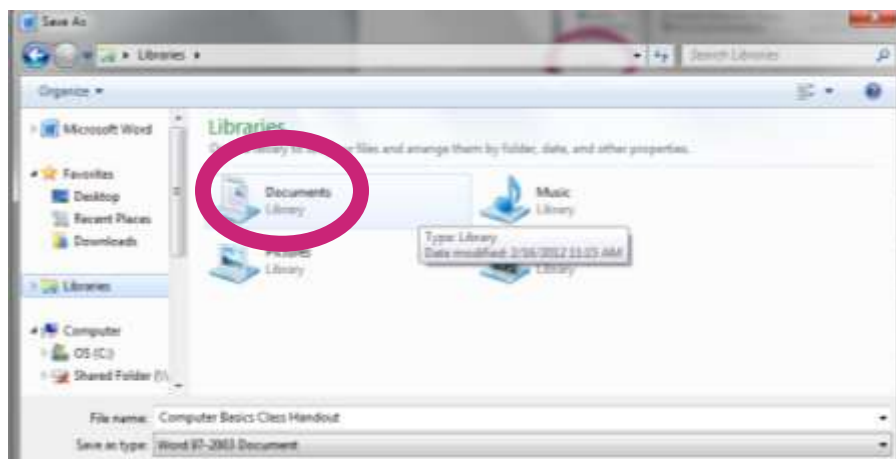


✓ Click **Libraries:**

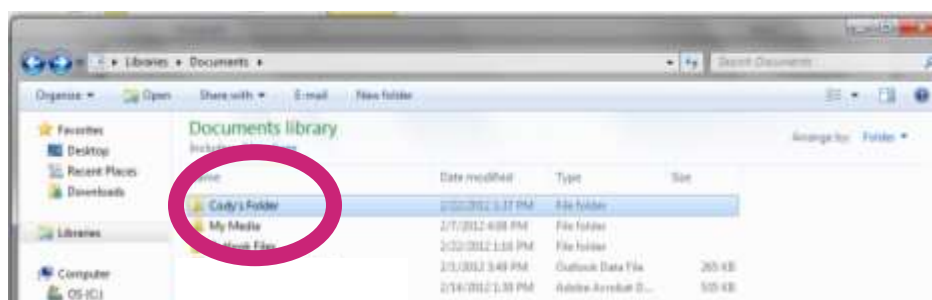




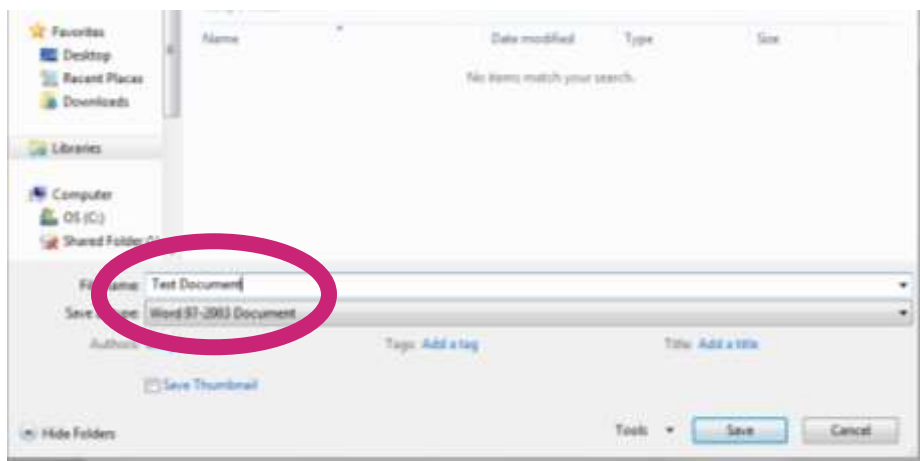
- ✓ Double-click on **Documents** library:



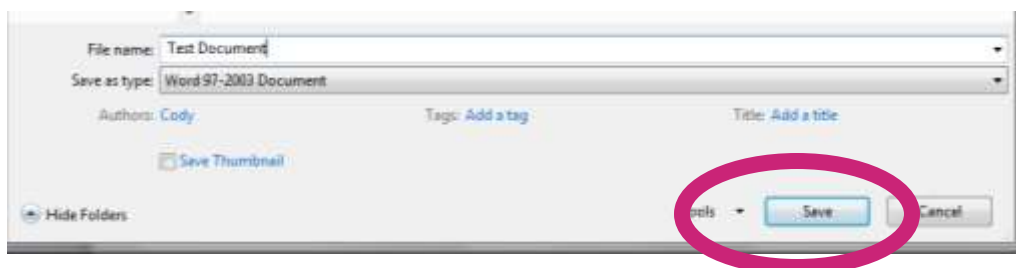
- ✓ Double-click on your new folder:



- ✓ Give your document a **file name**:



✓ Then click **Save**.



## Keyboard Shortcuts & Right-Click Functions

**Keyboard Shortcuts:** a **keyboard shortcut** is a finite set of one or more keys that invoke a software or operating system operation when triggered by the user. A meaning of term "keyboard shortcut" can vary depending on software manufacturer.<sup>22</sup>

Some frequently used **keyboard short-cuts**:

<sup>22</sup> From: [http://en.wikipedia.org/wiki/Keyboard\\_shortcut](http://en.wikipedia.org/wiki/Keyboard_shortcut)

- ✓ **Save:** Control-S
- ✓ **Copy:** Control-C
- ✓ **Cut:** Control-X
- ✓ **Paste:** Control-V
- ✓ **Undo:** Control-Z

There are also short-cuts using **right-click** (remember our definitions of left and right click on page 6). Some frequently used **right-click functions**:

- ✓ right-click **Copy**
- ✓ right-click **Cut**
- ✓ right-click **Paste**

**Note:** We have a more detailed keyboard shortcuts handout available at the library and on our website.

## Log-Off & Shut Down

When you are through with your computing session, you can **log-off** (which closes your programs but leaves the computer running) or you can **shut-down** the computer (which turns it off completely).

To **Log-Off**, click on the **Start Menu > the arrow next to Shut down > Log-Off**:







To **Shut-Down**, click on the **Start Menu > Shut down**:

