Operating systems and Event Driven Programming

When using event driven programming, it consists of using objects, listeners and handlers. For example, when creating a game using event driven programming, you use objects such as shapes to be able to interact with your game, such as an arrow key taking you to a next level. In order for it to proceed to the next frame or so, you would have to create a listener so that once it is clicked it will proceed to the next frame, and once you have clicked it, the listener will call on the handler to carry out this event.  
Windows 7 is an operating system that allows a user to run programs, save delete and organise files, as well as using it for other uses such as gaming or listening to music. Windows 7 can act as an event driven program as it also goes through the same processes when carrying out tasks made by a user. For example if a user were to open up a document they would have to go through the process of clicking the object, having windows 7 being the listener, it would then have to handle it and carry out the event.  
You can be able to use Windows 7 to:

* Double click to run programs
* Keyboard shortcuts
* Start menu
* Right-click to access properties

If a user were to run a program, such as by double clicking it in order for the program to load up, as you are double clicking the icon (on the desktop), to open it the icon would act as an object, and in this case the button, and once double clicked by the user Windows would act as the listener, processing the fact that the item has been clicked and that the user wants to open it and to start running that program, therefore Windows will then use the listener to call upon the handler so that it can handle the action and carry out the event, resulting in the program opening and running.

The same goes for the Start Menu. When you click on the icon it opens up a list of functions and buttons that can be used and ran by the user, opening up things like Documents, Pictures or Applications. For the user to carry out the event of clicking the start menu to open it up it triggers the mouse click event, when the user clicks on the start button (which would be the object), EDP can be used in this process as in order for the list of programs to appear an action is done, the mouse click (left-click on the object – the start menu) which is listened to by Windows, calling the handler to carry out the event and open up the start menu as the user wishes to do so. This is called a Mouse click event.

You can use Windows 7 to carry out keyboard shortcuts such as:

* CTRL+ESC – open Start Menu
* ALT +TAB – Switching from different Tabs open
* ALT+CTRL+DEL

When the keyboard is pressed, event driven programming will process this as KeyDown, KeyUP, and if on the arrow keys, left and right. The object in this keyboard event would be the actual keyboard keys pressed. If a user were to use a keyboard shortcut such as ALT+CTRL+DEL, once these keys are pressed Windows would listen to this as they are being pressed, and will call the handler so that the handler can carry out this event. Once it has been handles it will output onto the screen resulting in the keystroke opening up Windows 7 security, allowing users to either lock their system, open the task manager, log off, change their systems password or switch user, or even putting their system to sleep. This is called a keyboard event.