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Today’s work will guide you through understanding and coding event handlers.

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| **Part 1: Reference** |

1. Visit http://p5js.org/reference
2. Jump down the page to find the “Events” subsection.
3. Read through the reference pages for the mouse and keyboard events and handlers.
4. Write brief descriptions of the event handlers listed below:

mouseClicked(): A function that activates after a mouse button is presses and released

mouseDragged(): A function that activates after a mouse button is pressed and moved

mouseMoved(): A function that activates after a mouse has moved

mousePressed(): A function that activates every time after a mouse button has been pressed

mouseReleased(): A function that activates every time after a mouse button has been released after being pressed

mouseWheel(): A function that activates after a mouse wheel has been scrolled or when a wheel event has been detected by a touchpad

keyPressed(): A function that activates every time after any keyboard key has been pressed

keyReleased(): A function that activates every time after any keyboard key has been released

keyTyped(): A function that activates every time after any keyboard key has been pressed except the Backspace, Delete, Ctrl, Shift, and Alt keys.

1. Answer the following questions:

What is the difference between mousePressed() and mouseClicked()?

The function for mousePressed() only happens when the mouse button is released from being pressed, while the function for mouseClicked() only happened when the mouse button is pressed.

What are some possible values for key?

The possible value for key is any key since it contains the value of the most recent key that was typed.

What are some possible values for keyCode?

Some possible values for keyCode are Backspace, Delete, Enter, Return, Tab, Escape, Shift, Control, Option, Alt, and All 4 of the arrow keys.

6. Search the p5 reference for information on the random() function. What can it do?

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| **Part 2: Code** |

Duplicate the template to create a new folder in p5sketches/ called “Lastname\_EventHandlers” for a program sketch that satisfies the following conditions:

* Canvas size: 500 x 500
* Your favorite color as background
* Starts with one orange circle in the center of the screen – circle size 50w x 50h
* When the mouse is clicked, create unfilled or transparent circle, sized 30w x 50h at the mouse’s location
* When any key is typed, create a rectangle of any fill color with a randomized location and a size of 20 x 40
* When the mouse is dragged, clear the canvas background.

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| **Part 3: Submitting Exercise** |

1. Save your work, zip the “Lastname\_EventHandlers” folder, and upload to the appropriate dropbox in MyCourses.
2. Upload this completed worksheet to the dropbox as well, or hand a printed version in to your instructor.

Due end of day Wednesday.