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Pronouns: him/ he

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(): This function is called after the mouse key is pressed and released.

mouseDragged(): This function is called whenever a mouse button is pressed and the mouse is moved.

mouseMoved(): This function is called whenever the mouse is moved and not pressed.

mousePressed(): This function is called whenever a mouse button is pressed upon and actuated.

mouseReleased(): This function is called after a mouse button has been released.

mouseWheel(): This function is called whenever a vertical mouse wheel, or a touchpad scroll event is detected.

keyPressed(): This function is called every time a key is pressed. The keyCode for the key that was pressed is stored in keyCode variable. For non-ASCII keys, use the keyCode variable. To check for backspace, delete, and etc.

keyReleased(): This function is called every time a key is released.

keyTyped(): You may use keyTyped() to distinguish between lower and uppercase.

Notes: Add “return false” to avoid any anomalies (default behavior) with the functions above on different browsers.

Holding down a key may cause multiple calls to the key functions due to how operating systems handle key repeats.

1. Answer the following questions:

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

The “mousePressed()” function is called whenever the a mouse key press is registered whereas a “mouseClicked()” function is called whenever a mouse key is pressed and released.

What are some possible values for key?

Enter, Backspace, A,a, Arrow up, Arrow down, control, alt

What are some possible values for keyCode?

BACKSPACE, DELETE, ENTER, RETURN, TAB, ESCAPE, SHIFT

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 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 by the start of class on Wednesday.