Processing

Basic introduction & Imaging

Hello!

I’m the TA for this class
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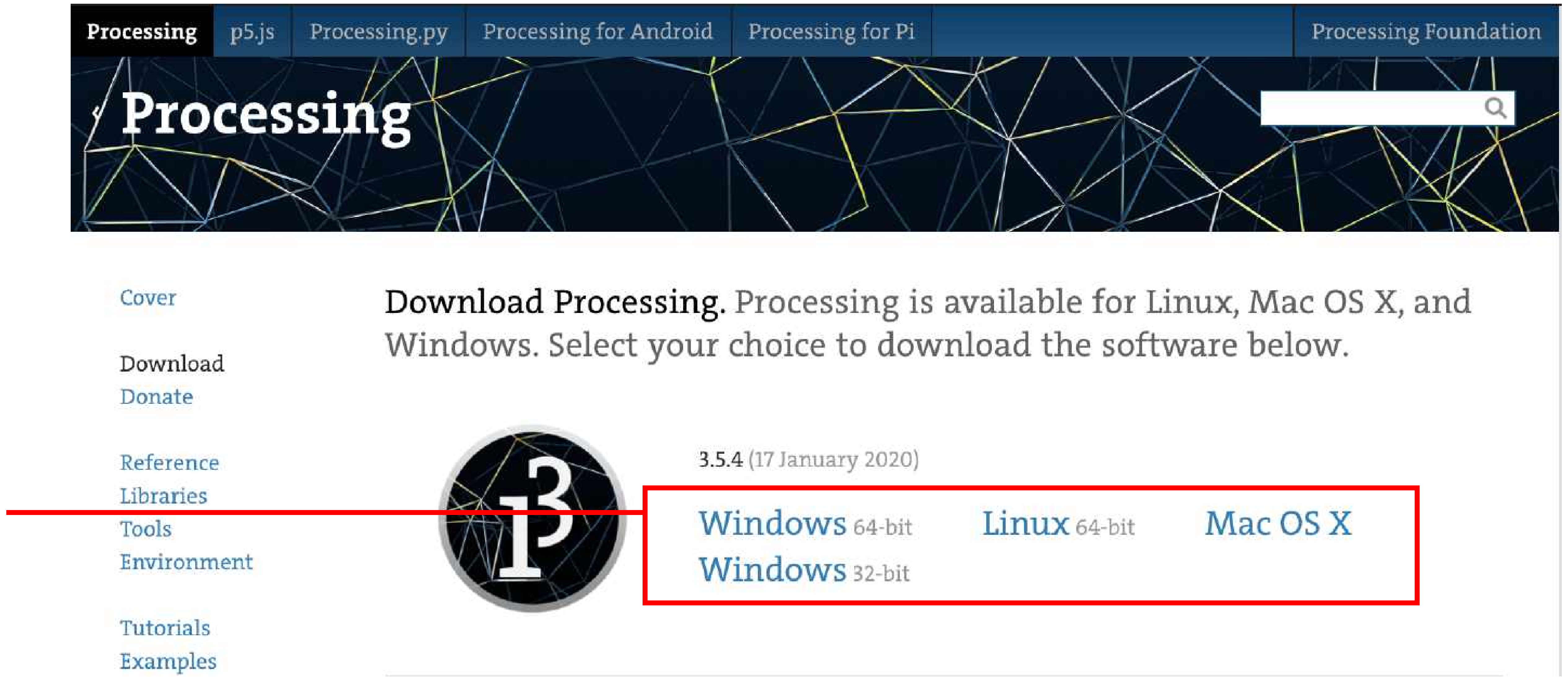
Tips for the class

- Don’t worry if you’re new to programming
- Programming is a mindset
- Free resources are everywhere!
- Have fun and keep experimenting!

Download Processing

https://processing.org/download/

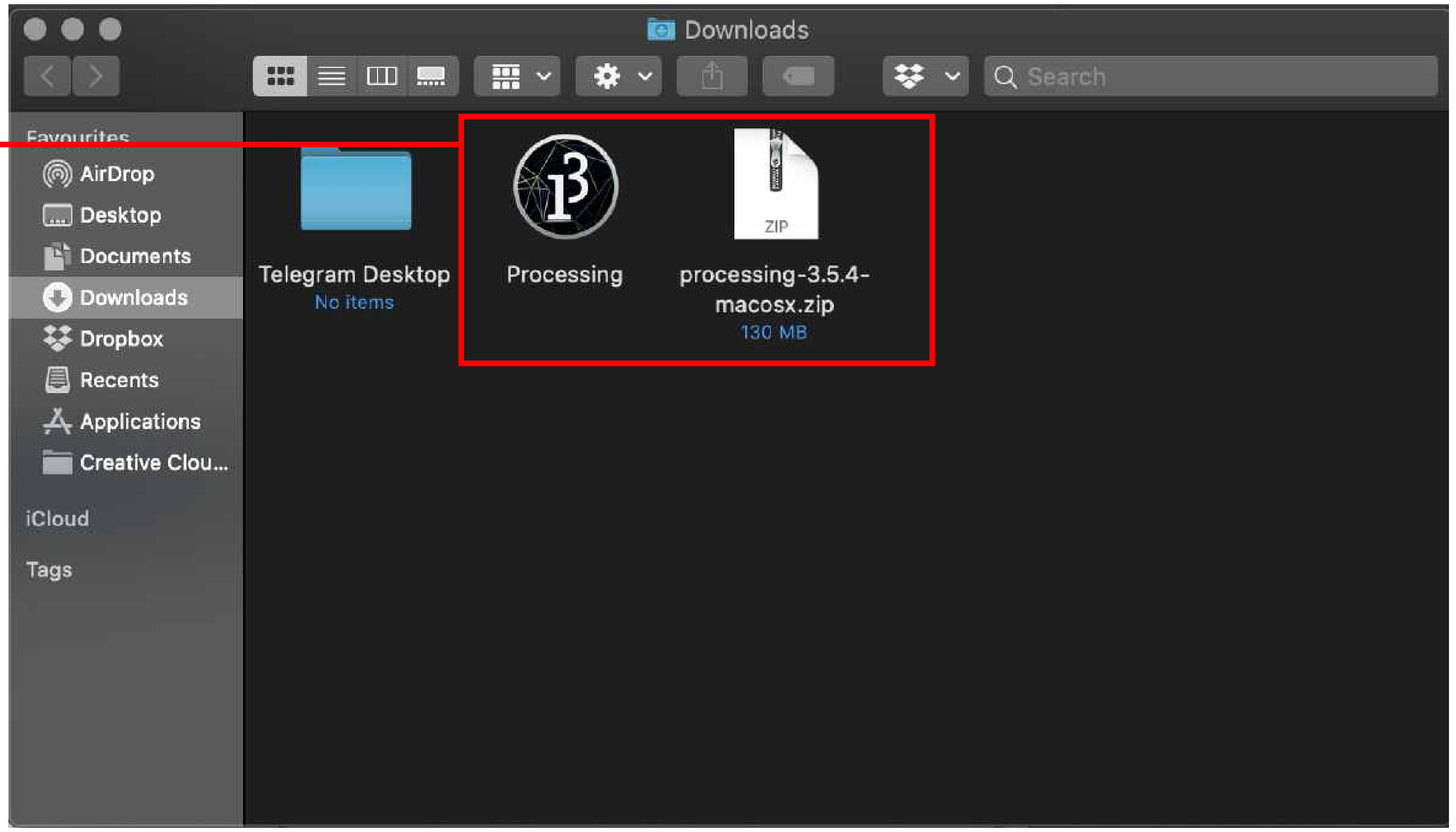


Download Processing. Processing is available for Linux, Mac OS X, and Windows. Select your choice to download the software below.

3.5.4 (17 January 2020)

Windows 64-bit Linux 64-bit Mac OS X
Windows 32-bit

1. Download with the link



2. Extract the zipped file to retrieve icon. You can now use processing! You can also drop it in your Applications

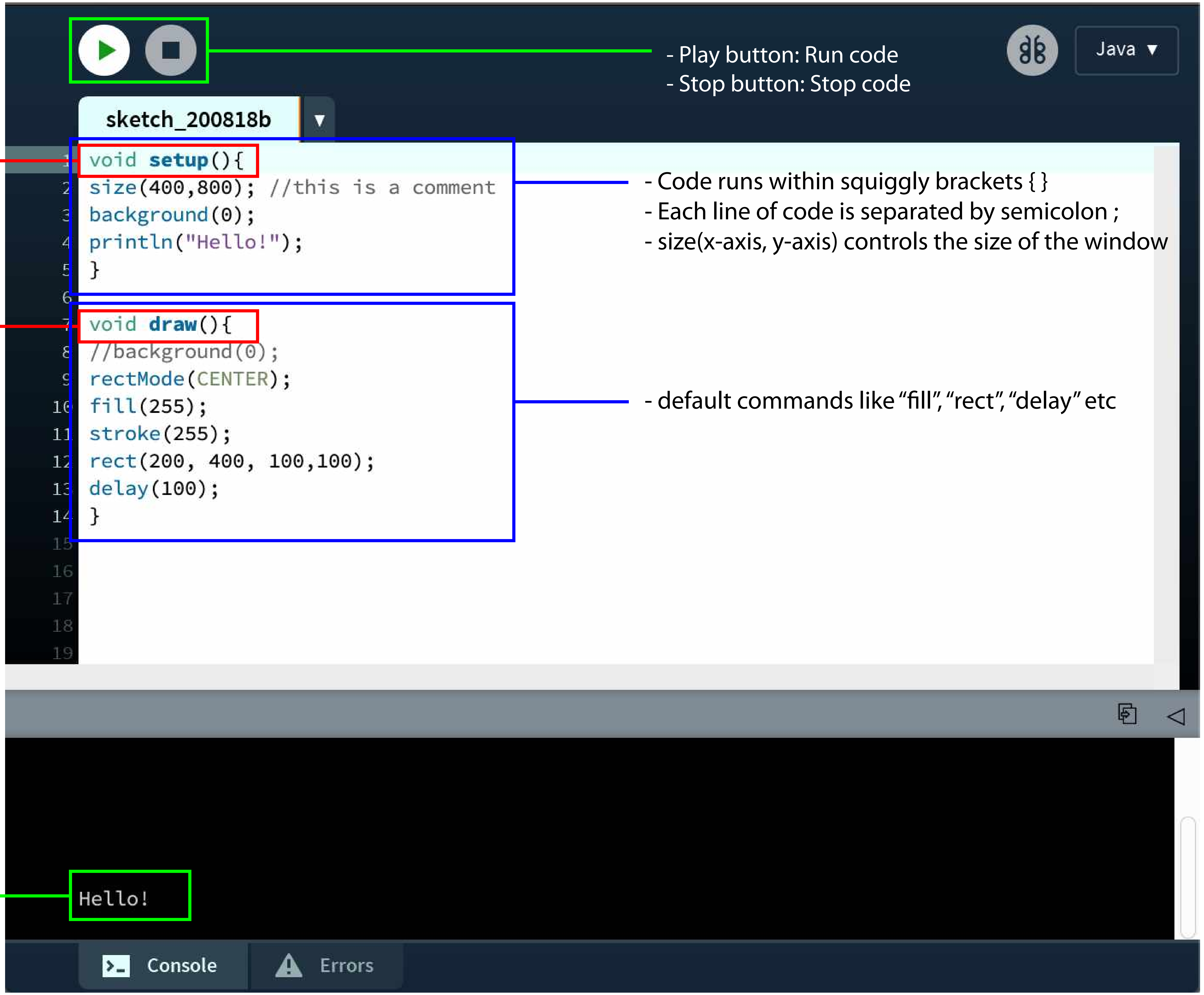
Windows users: Same thing, extract and it will be a folder with Processing.exe file

Interface and basics

Sets up the initial conditions, runs only once

Continuously looping after set up is done, forever

println(”Hello!”) on void setup: the text is only printed once on console VS if it’s on void draw



- Play button: Run code
- Stop button: Stop code

```
void setup(){
size(400,800); //this is a comment
background(0);
println("Hello!");
}

void draw(){
//background(0);
rectMode(CENTER);
fill(255);
stroke(255);
rect(200, 400, 100,100);
delay(100);
}
```

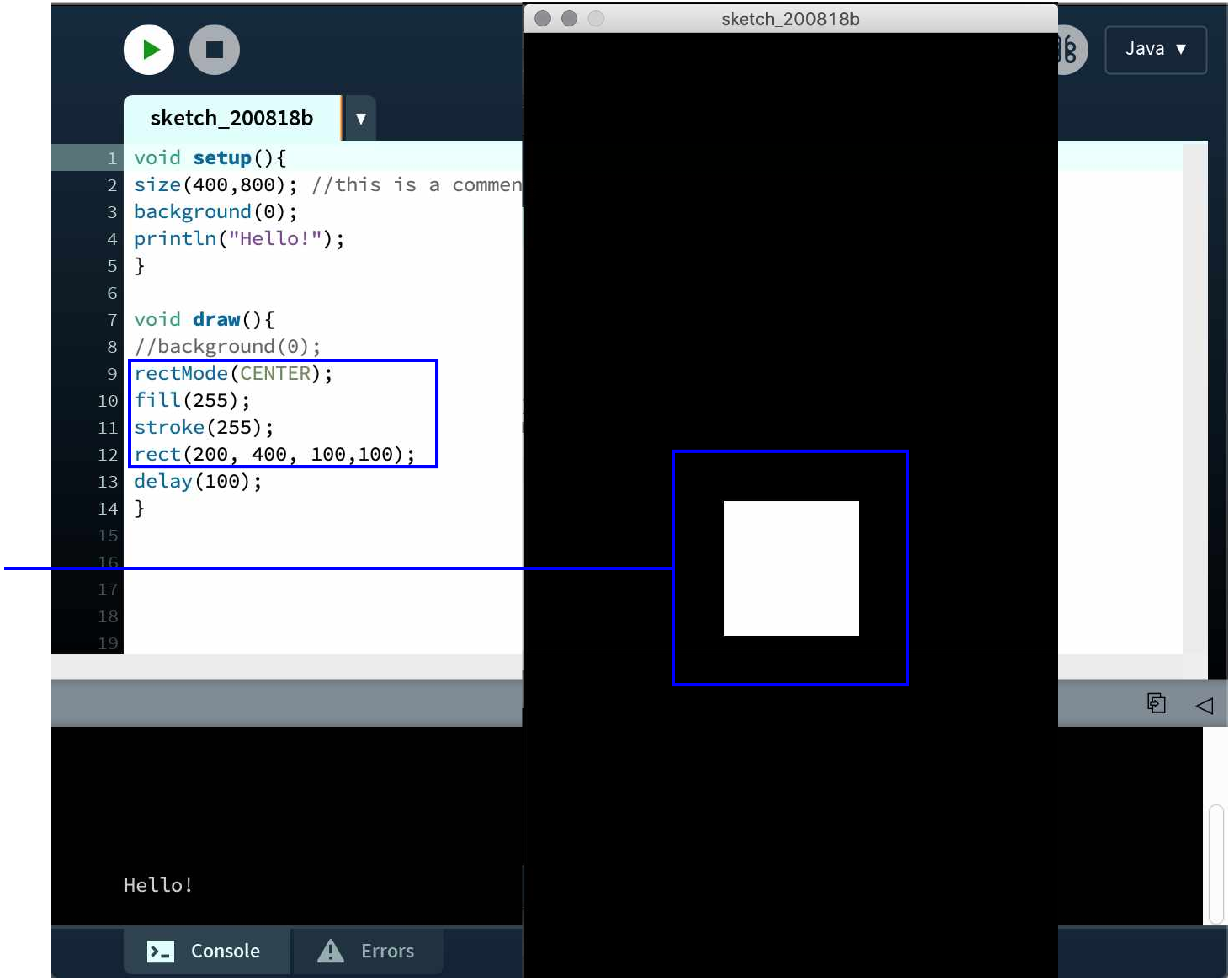
- Code runs within squiggly brackets { }
- Each line of code is separated by semicolon ;
- size(x-axis, y-axis) controls the size of the window

- default commands like “fill”, “rect”, “delay” etc

```
Hello!
```

Interface and basics

- white fill and stroke (255)
- Colours: (R,G,B), or greyscale from 0 to 255
    - i.e. fill(255,255,255) is white, same with fill(255)
- rectangle's anchor point is in the center
- rectangle is placed in the middle of the window
- rectangle has 100 by 100 pixels dimension



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}
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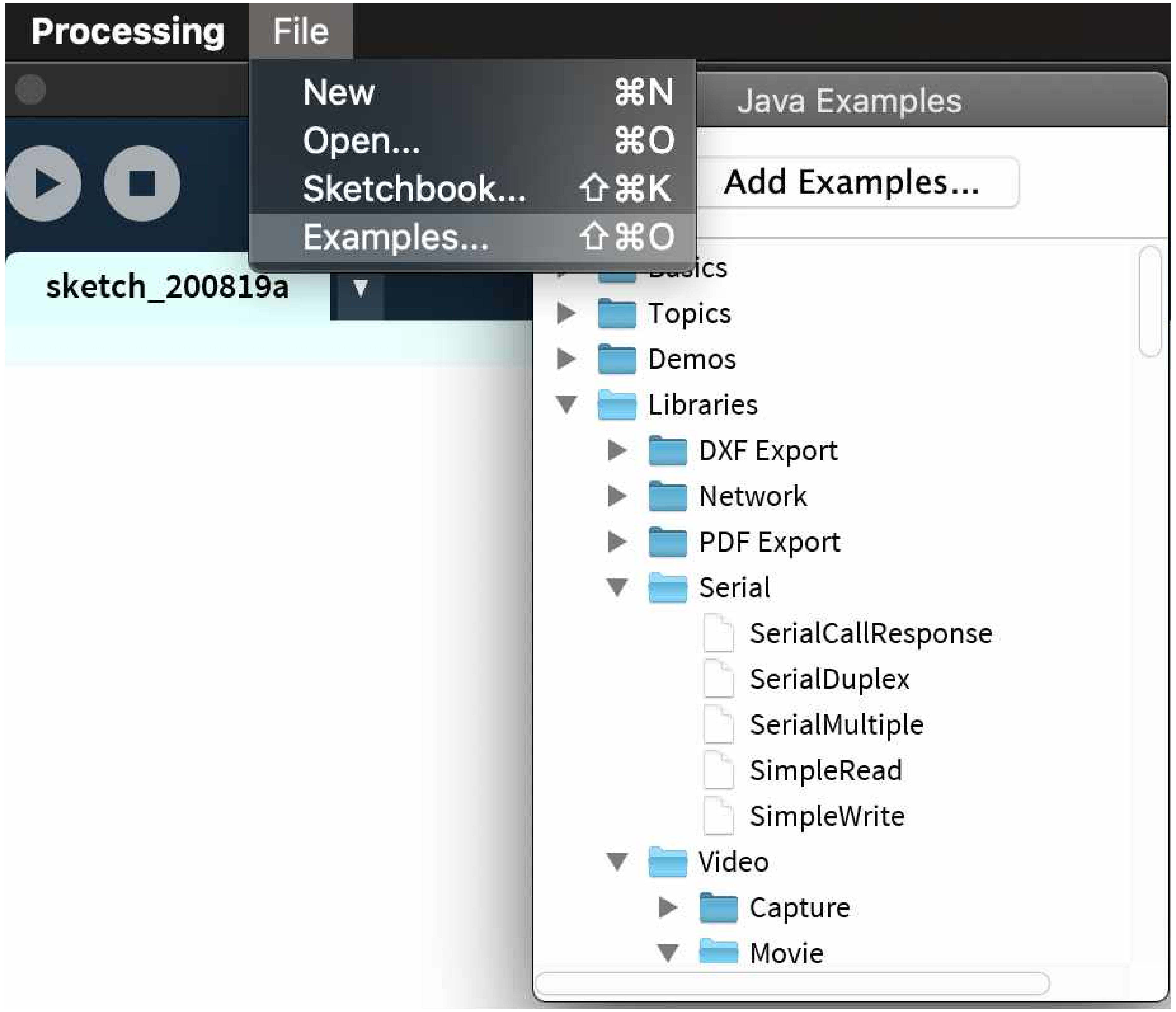
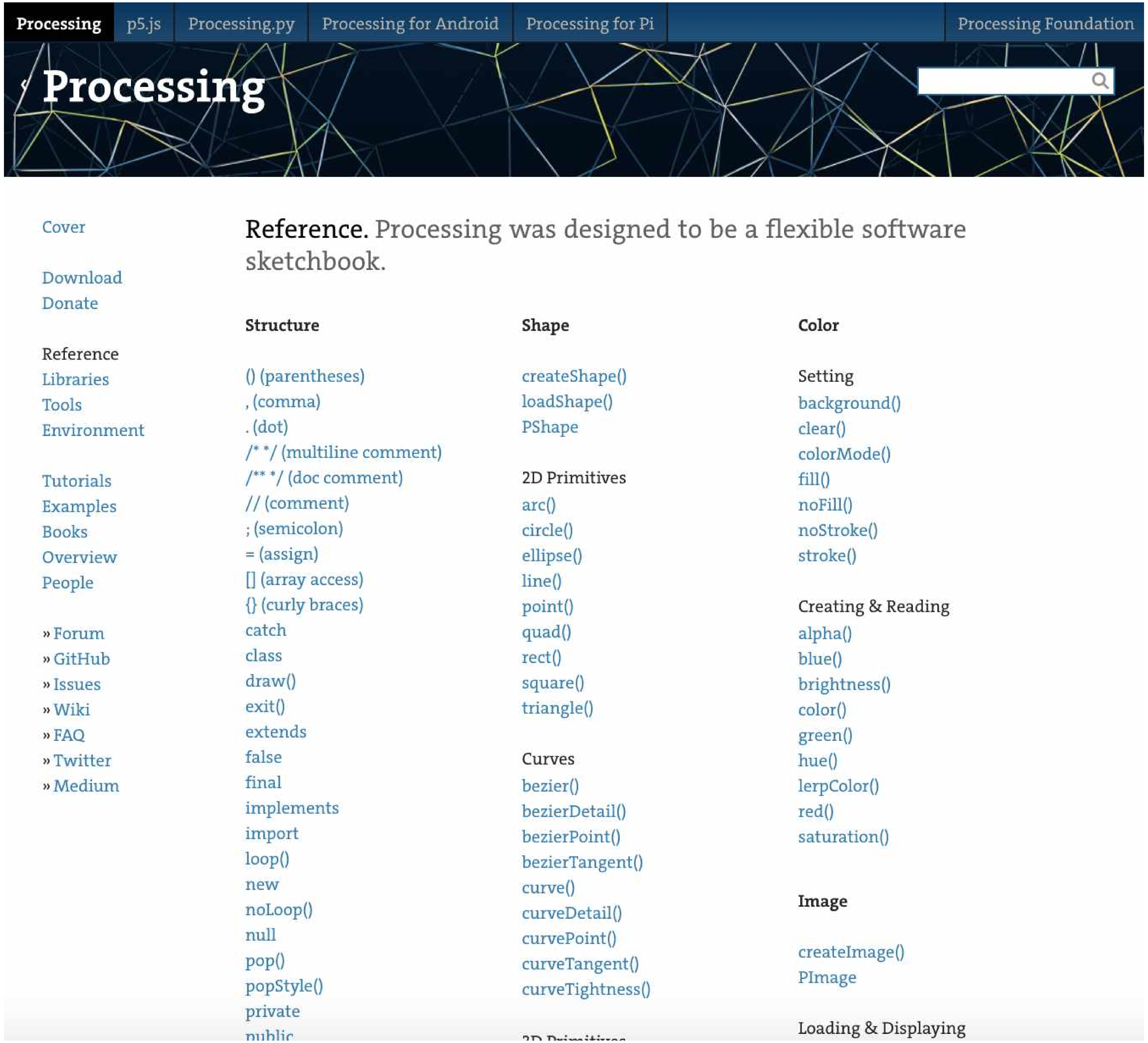
```
Hello!
```

References: Examples



References: Online Resources

https://processing.org/reference/



Reference. Processing was designed to be a flexible software sketchbook.

Structure

() (parentheses)
, (comma)
. (dot)
/* */ (multiline comment)
/** */ (doc comment)
// (comment)
; (semicolon)
= (assign)
[] (array access)
{} (curly braces)
catch
class
draw()
exit()
extends
false
final
implements
import
loop()
new
noLoop()
null
pop()
popStyle()
private
public

Shape

createShape()
loadShape()
PShape

2D Primitives
arc()
circle()
ellipse()
line()
point()
quad()
rect()
square()
triangle()

Curves
bezier()
bezierDetail()
bezierPoint()
bezierTangent()
curve()
curveDetail()
curvePoint()
curveTangent()
curveTightness()

2D Primitives

Color

Setting
background()
clear()
colorMode()
fill()
noFill()
noStroke()
stroke()

Creating & Reading
alpha()
blue()
brightness()
color()
green()
hue()
lerpColor()
red()
saturation()

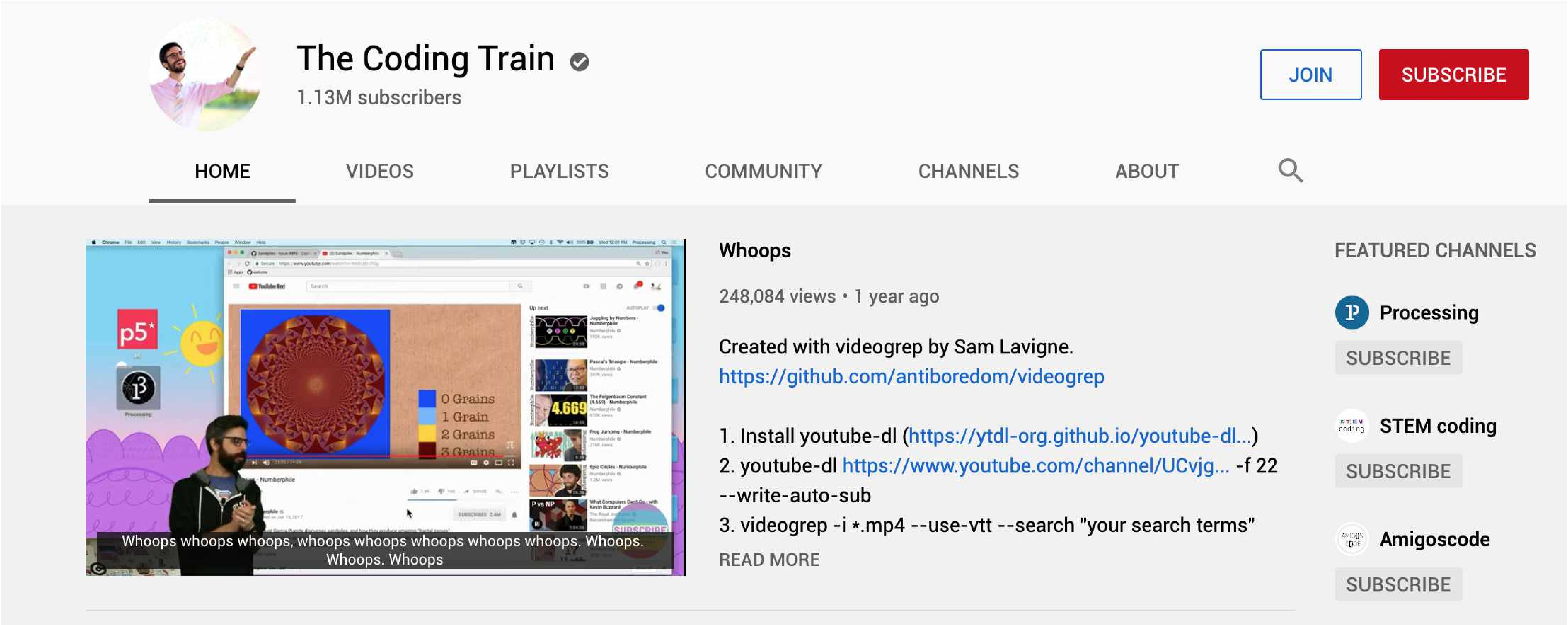
Image

createImage()
PImage

Loading & Displaying

References: Online Resources

https://www.youtube.com/thecodingtrain



Whoops

248,084 views • 1 year ago

Created with videogrep by Sam Lavigne.
https://github.com/antiboredom/videogrep

1. Install youtube-dl (https://ytdl-org.github.io/youtube-dl...)
2. youtube-dl https://www.youtube.com/channel/UCvjg... -f 22 --write-auto-sub
3. videogrep -i *.mp4 --use-vtt --search "your search terms"

READ MORE

Basic commands and functions on Processing

Let’s try some examples

Conditionals1
Keyboard Functions
Mouse Signal

Generating graphics and images on Processing

Let’s try some examples

Form: Bezier
Image: Pointilism
Lights: Directional
Math: Double Random
Shape: ScaleShape
Image Processing: Blending

Next week: Videos & Animations

Self enrichment:

- Try exploring the examples given by Processing
- Watch TheCodingTrain on x1.5 speed

Thanks!

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