Visualization of Information

MSDS 6390

Live Session 2

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SMU

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Assignment 1

Results

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Questions

- Why did you choose the artwork?
- What was the most difficult part of programming it?
- What could make your work easier?

Variables in Processing

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Variables in Processing

- Memory space for storing a value
- Scope: lifespan of a variable
  - Global
  - Local
- Java
  - Statically typed: *“In Java, all variable names (along with their types) must be explicitly declared”*

https://st.hzcdn.com/.../baby-and-toddler-toys.jpg

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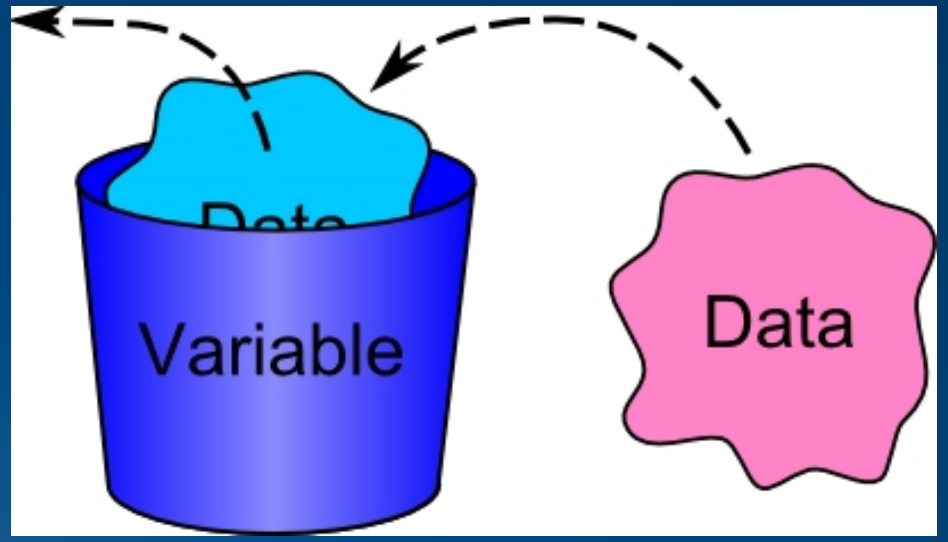
Variables in Processing

- A variable in Java must be:
  1. Declared: Give a name that describes the variable
  2. Initialized: Assign an initial value
  3. Used: Use the variable through its name
- Naming conventions
  - Reserved keywords



http://img.c4learn.com/2012/02/Variable-in-Java.jpg

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Reserved keywords in Java

abstract	do	if	private	this
assert	double	implements	protected	throw
boolean	else	import	public	throws
break	enum	instanceof	return	transient
byte	extends	int	short	true
case	false	interface	static	try
catch	final	long	strictfp	void
char	finally	native	super	volatile
class	float	new	switch	while
const	for	null	synchronized	continue
default	goto	package		

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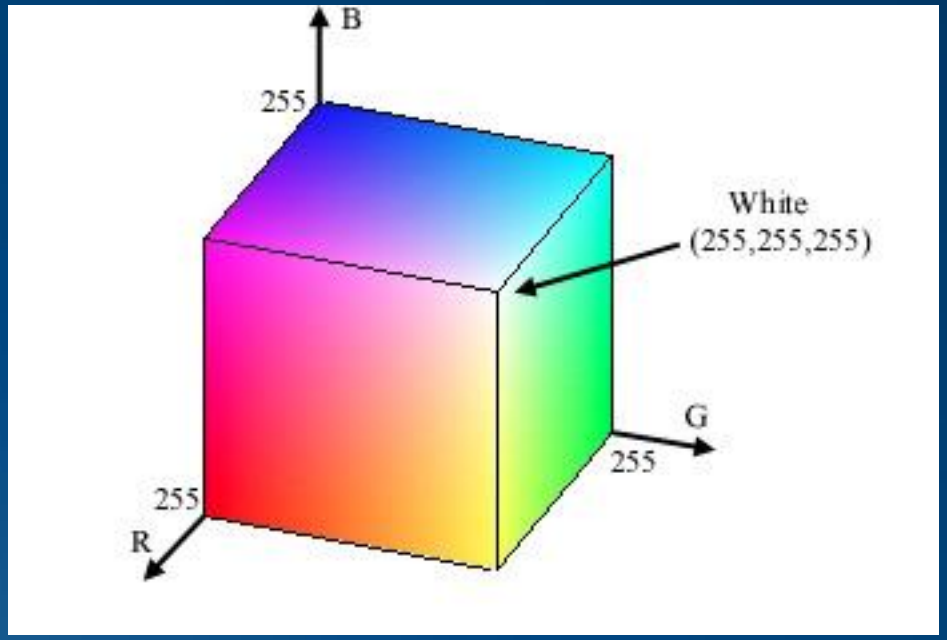
Digital Color

- RGB Color mode
  - Additive color model
  - Primary colors: red, green, blue
  - Device dependent
- Values:
  - Decimal: 255, 255, 255
  - Hex: #FFFFFF
- Online tools:
  - Adobe Color Wheel: https://color.adobe.com



http://radio.feld.cvut.cz/matlab/toolbox/images/colorcube.jpg

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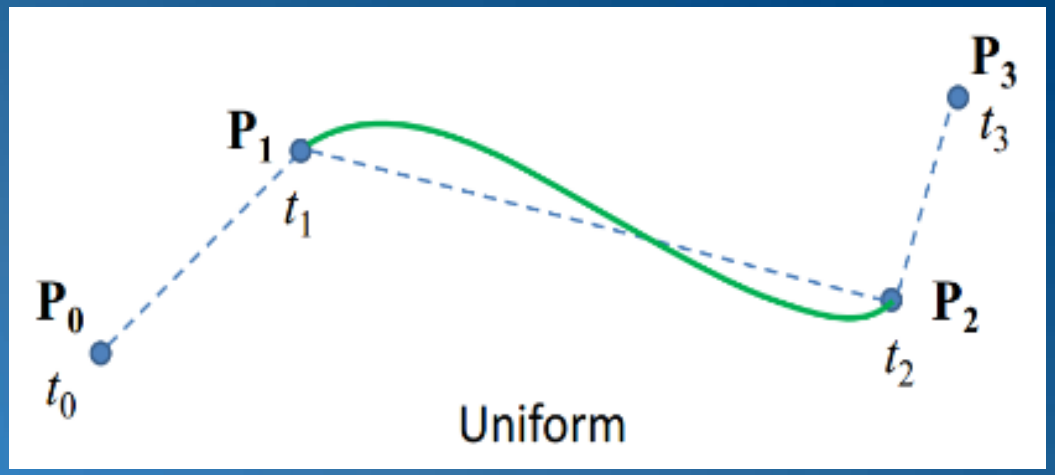
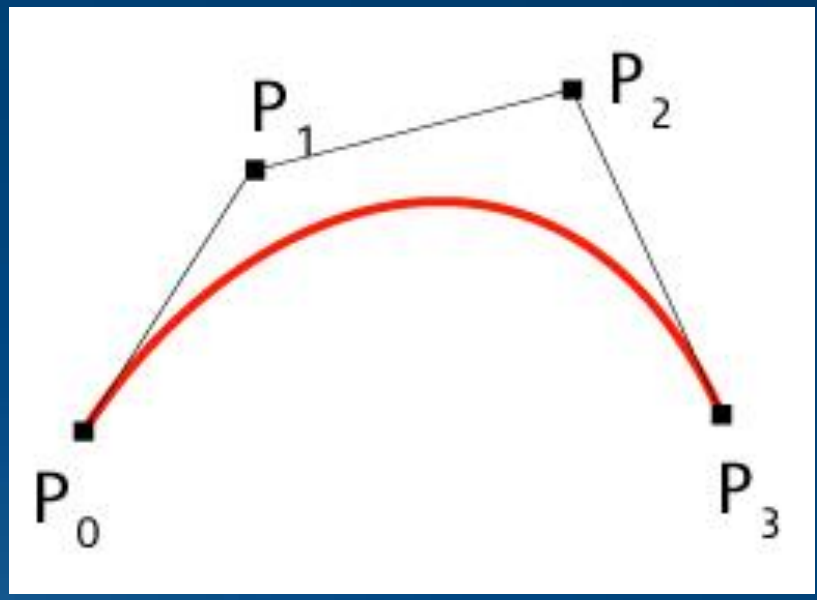
Curves

- Catmull-Rom Curves



https://stackoverflow.com/questions/9489736/catmull-rom-curve-with-no-cusps-and-no-self-intersections

- Bezier Curves



http://www.ecartouche.ch/content_reg/cartouche/graphics/en/html/Curves_learningObject2.html

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Live coding

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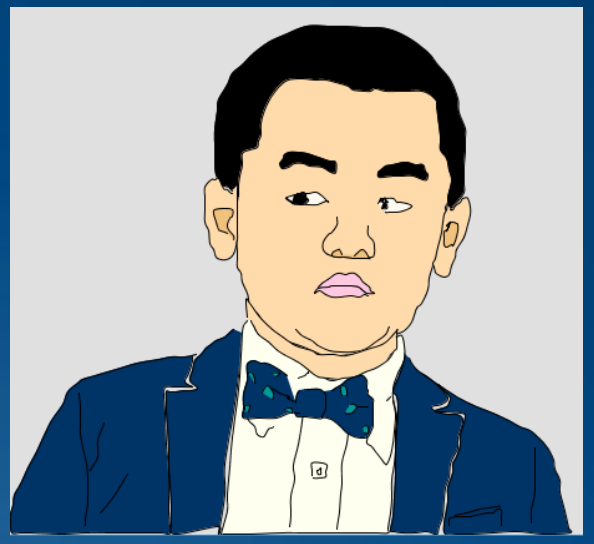
Assignment 2

- Using Processing's 2D drawing functions, create a self-portrait. Structure your code so that changing a size or position variable updates the entire portrait. Please be prepared to discuss how the algorithmic/coding process impacted the finished piece as compared to drawing, painting, or photographing a self-portrait



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Questions?

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