https://processing.org/reference/

```
size(int, int, type); //window size
size( 800, 600); //2
size( 800, 600, P3D); //3D
background(0); //black
background(255); //white
background(Red, Green, Blue);
background(100, 200, 200); //teal
random(0, 100) // between 0, 100
fill(#11F7F2);  //colour, teal
rect( left, top, right, bottom);
stroke( #F7113C); //line colour
strokeWeight(20) // line thickness
line( left, top, right, bottom);
text("Hello", left, right);
ellipse(left, top, width, height);
noStroke(); //don't do shape lines
mouseX;mouseY:
width , height;
frameCount;
```

Save your project
CTRL-K to go to project folder
Create a "data" folder
Add a picture

```
float xPos;
int counter;
PImage img;
String myText = "";
color c = color(100, 200, 200);
boolean playing = false;
println("Colour:", c);
```

See: PImage, imageMode(), tint() and filter()

```
void setup(){
  // loading code here
  // do once
  size( 600, 600);
  img = loadImage("myimage.jpg");
}

void  draw(){
   // repeated code here
  image(img, 10, 10, 50, 50);
}

//create a variable
int myCounter = 0;
myCounter ++; //  add one onto it

if ( myCounter > width){
  // reset the counter
   myCounter = 0;
}
if ( millis() % 8 == 1){}
```

FUNCTIONS

```
void mousePressed(){
  int num = int (random(5, 20));
  circles(num, mouseX, mouseY);
}
void draw() {
  if (mousePressed == true) {
    point(mouseX,mouseY);
  }
}
```

FONTS

```
PFont myFont;
myFont = createFont("Georgia", 66);
textFont(myFont);
```

LISTS

```
float[] zs = new float[50];
String[] words = new String[3];

words={"Apple", "Oranges", "Pears"};
println(words.length, "words");
```

REPEAT LOOPS

```
void circles(int num, int x, int y){
  for (int i=0; i < num; i++) {
  float xPos = x + random(-50, 50);
  float yPos = y + random(-50, 50);
  ellipse(xPos, yPos,random(4,4),10);
  }


while( i < words.length){
   text(words[i], 30, 30);
   i++;
}

void keyPressed() {
      save("my_drawing.png");
}
```

DATA

```
Table table;
loadTable("mydata.csv" ) //data file
for (TableRow row : table.rows()) {
  int id = row.getInt("id");
  String name =row.getString("name");
  println(name + ": " + id);
}
```

GEOMETRY

```
translate(x, y) // go to this point
pushMatrix();
  //do some code here
popMatrix();
```