

CS106 W2021 - Lab 03

Due Tuesday January 26 at 11:59pm.

1) To begin, fork the following sketch on Open Processing:

“L03_Q1_StarterCode”. It is at:

<https://openprocessing.org/sketch/1069876>

Run it. You should see an animated camel in the upper-left area of the canvas. The camel images are from “camelAtlas.png”. Each camel image on the canvas has a number on top. The number represents the index of the image in the array of images named “fifteenImages”.

Your canvas should look something like the following:



On Open Processing, if you look in the “files” section you will see the “camelAtlas.png” as well as a half dozen or so other png’s. One of these other png files is “scorpionAtlas.png”.

Change the sketch to load and display the “scorpionAtlas” rather than the “camelAtlas”.

That is it. This is a trivial question. Your canvas should look something like the following:



2) To begin, fork the following sketch on Open Processing:

“L03_Q2_StarterCode”. It is at:

<https://openprocessing.org/sketch/1069825>

Run it. You should see an animated compass. In the compass the magnetic hand appears to be moving counterclockwise. Modify the

sketch so that the magnetic hand appears to be moving in a clockwise direction.

A video demonstration is at:

<https://vault.cs.uwaterloo.ca/s/MGF3AZrRbLyFEDz>

3) To begin, fork the following sketch on Open Processing:

“L03_Q1_StarterCode”. It is at:

<https://openprocessing.org/sketch/1069876> Note: This is question 3 on the lab but it uses the same starter code as question 1 (that’s ok).

Run it. You should see animated camel in the upper-left area of the canvas.

Modify the sketch so that the camel walks (i.e. animates) from right to left.

Mimic what you see in the video:

<https://vault.cs.uwaterloo.ca/s/3MHqrspsfPEyqN2>

4) To begin, fork the following sketch on Open Processing:

“L03_Q1_StarterCode”. It is at:

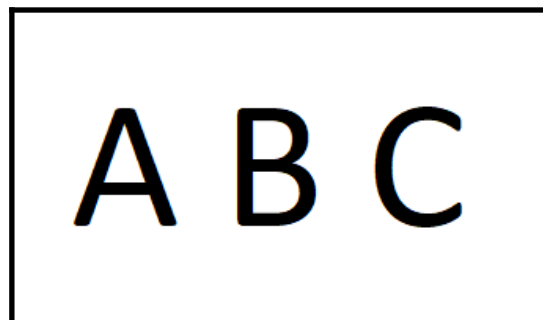
<https://openprocessing.org/sketch/1069876> Note: This is question 4 on the lab but it uses the same starter code as question 1 (that’s ok).

Run it. You should see animated camel in the upper-left area of the canvas.

A video demonstration of your task is at:

<https://vault.cs.uwaterloo.ca/s/LH3J6t8FJ3jrArw>

Watch the video. You are to create your own sprite sheet of your choice. In the video I create a sprite sheet with just the letters “A”, and “B”, and “C”. Mine looked like the following and was a png file:



Create your own sprite sheet as a png file using whatever software you know. If you are creative, then make yours a lot more graphical than mine if you like.

Then create a txt file using whatever software you like. The text file should describe the individual parts of the sprite file. For example, in my sprite sheet I had just the three items and they are the “A”, “B”, and “C”, so I created a text file with three lines that described where the “A”, “B”, and “C” were on my sprite sheet png above. My text file was as follows:

```
1, 0,0, 115, 170  
2, 115, 0, 115, 170  
3, 230, 0, 115, 170
```

Note that each of the pieces of the sprite sheet for the “A”, “B”, and “C” were 115 pixels wide and 170 pixels high.

In the starter code for L03_Q1 (which you have forked) change the file so that instead of showing the camel, it will show your sprite file. Watch the video above for details on that.

5) To begin, fork the following sketch on Open Processing:
“L03_Q5_StarterCode”. It is at:
<https://openprocessing.org/sketch/1070018>

Run it. You should see cards displayed in the upper-left area of the canvas. There are 52 cards.

Modify the sketch so that the cards are first shuffled. Then five cards are dealt face-up on the top of the canvas and five cards are dealt face-up at the bottom of the canvas.

Mimic what you see in the video:
<https://vault.cs.uwaterloo.ca/s/CEWCznb4myN8rjA>

Submitting

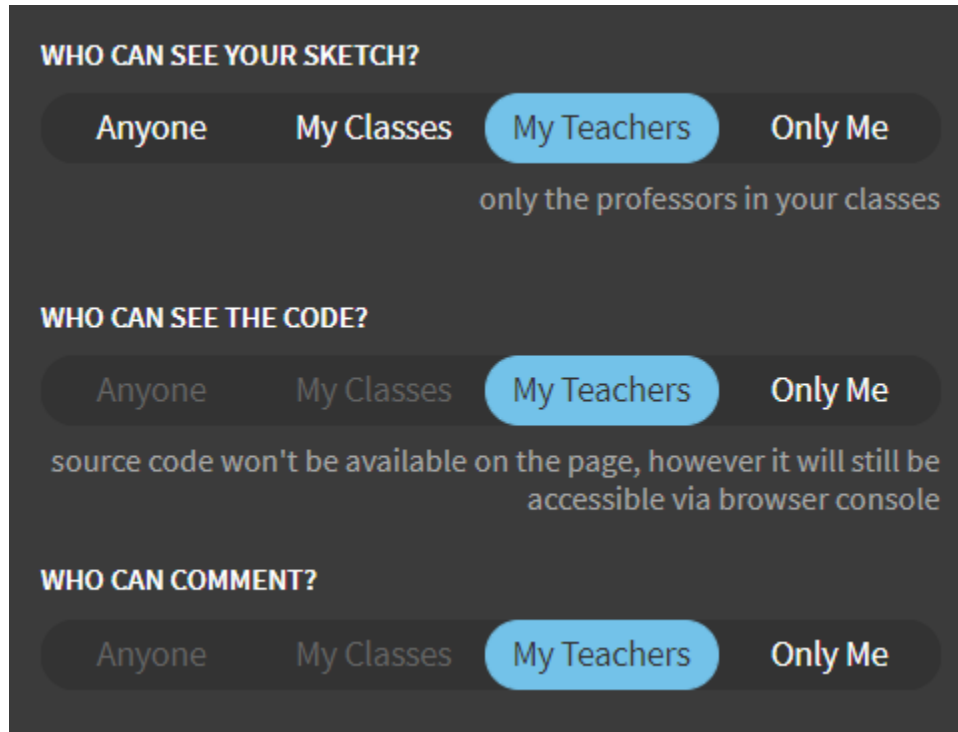
Use the template file in Word “CS106 Lab Template” in LEARN to create your Lab 03 submission.

Then convert your Word file to pdf. Please ensure that your URLs are hot links. The TAs need to be able to click on each link in your pdf and go directly to your sketch.

So for example, don't have a link like this: <https://openprocessing.org/sketch/1050954>

but rather have that link as a hot link as follows: <https://openprocessing.org/sketch/1050954>

Ensure that each URL you submit has its settings so that the access is as follows:



The image shows a dark-themed settings panel for an OpenProcessing sketch. It is divided into three sections, each with four radio button options: 'Anyone', 'My Classes', 'My Teachers', and 'Only Me'. The 'My Teachers' option is selected in all three sections. Below the 'My Teachers' option in the first section, there is a note: 'only the professors in your classes'. Below the 'My Teachers' option in the second section, there is a note: 'source code won't be available on the page, however it will still be accessible via browser console'.

WHO CAN SEE YOUR SKETCH?

Anyone My Classes **My Teachers** Only Me

only the professors in your classes

WHO CAN SEE THE CODE?

Anyone My Classes **My Teachers** Only Me

source code won't be available on the page, however it will still be accessible via browser console

WHO CAN COMMENT?

Anyone My Classes **My Teachers** Only Me

Submit that pdf file to the Lab 03 dropbox on LEARN.

An example of how to do submit a Lab is shown in the following video:

<https://vault.cs.uwaterloo.ca/s/9Xx7AGsewaea773>

It is your responsibility to submit to the correct dropbox with the correct files before the deadline. Otherwise you may receive a mark of 0.