The Computer Expressive

Lab 3: A Cafe Story Pt 1

Brief:

Today's lab will cover basic programming concepts using the Sugarcube story format and syntax. It will also include the incorporation of Javascript (JS) and CSS to introduce students to various methods of using JS to make Twine stories more dynamic.

Instructions for the lab are broken down by passage. Look out for passages that use JS in script tags, as the syntax for these parts will be different than Sugarcube's syntax. Some styling elements will come already written in the lab's code, and others will need to be implemented. Instructions for styling will be associated with the appropriate passage.

After completing the lab, see the prompt at the end of the code file for your next practice assignment.

What You'll Need

-Download Lab 3 file from GitHub , open Lab3_practice file (Lab3_complete contains the finished cafe story for future reference)
-Slides from Lab 2
https://docs.google.com/presentation/d/1-3G8fzIt9ja7VDlaFgE24f8JefcX2pcztpC6zPD_AQo/edit?usp=sharing

Helpful Resources

- It is best to review the Sugarcube 2 documentation found on motoslave.net . It covers all Sugarcube APIs, and the syntax for interacting with story elements through JS https://www.motoslave.net/sugarcube/2/docs/
- Class Wiki (see the Twine page for JS and Sugarcube resources) https://github.com/tblunt18/LMC-6310-/wiki
- Sara has also compiled javascript resources in the class wiki for 6310. https://github.com/smilkes/lmc-6310-A/wiki/2-Twine-and-Javascript
- This lab uses javascript DOM elements, referenced here https://www.w3schools.com/JSREF/met_document_createelement.asp

Part 1 (25 mins)

You're heading to meet with your friend at the cafe. You'll bump into people on the way, so be ready to include this into your narrative.

Passage #1 (titled Start)
Fill in the opening text for the start of the story, then create a link to the next passage using (name the new passage next1 when you create the link) *see slide 21*

Passage #2 (next1)
1)Add to the narrative. Then, create a div element and give it the class name Images. Grab an image address from the web, and place a Sugarcube style image inside the div *see slide 22*

```
<div class="Images"></div>
```

2)In the Story Stylesheet, fill in the "Images" img block with these properties (you can adjust these to your liking)

```
display: block;
margin-left: auto;
margin-right:auto;
width: 50%;
border: 10px double Silver;
padding: 20px;
```

3)link to the next passage, naming it next2

play the story

Passage #3 (next2)
Add to the narrative, then create two links that direct the story to two different passages (one where you talk to another person, the other where you don't talk to them). Name both passages in their link definitions.

The next passage only details one of these passages, since it's more complex. For the second option that you link to (not numbered below, but can be considered passage #7), add text to that and link it to Lobby passage.

Passage #4

1)Create a div element and give it the class name Images, then add an image from the web inside the div

2)Set these variables using Sugarcube's <<set >> macro *see slide 4*
image1 = find an image address for a person on the web,
image2 = find a different image for the second person in this dialogue
count = 0 , bool = true , mainDialogue equal to a array of strings that contain the conversation to be had (i.e. each sentence is an element in the list) *see slides 6-9*

3)Inside DialogueBox div, create 2 p (paragraph) elements and give the first the id of "img", the next the id "dialogue"

```
<p id=” ”></p>
```

4) Inside the p element with the "img" id, place an image with the variable that holds image1's link inside ($image1)

5) Inside the p element with the "dialogue" id, using the mainDialogue array, access the element at $count index *see slides 9*

6) (there is a third p element at the bottom of the passage)

7) **javascript**: Check the code for passage 4, there is a <<button>> macro that creates a button on the screen. Inside this macro is a <<script>> macro, this is one of two places to write javascript code.

a) Fill in if statement (javascript syntax) *see slide 13* paste this line into the conditional argument (<u>see the comment in the code to learn what it does</u>):

```
state.active.variables.count < state.active.variables.mainDialogue.length -1
```

b) define 4 variables by pasting in the following lines

```
var image = document.createElement("IMG");
var img;
var booleanv = state.active.variables.bool;
var text =
document.createTextNode(state.active.variables.mainDialogue[state.active.variables.count]);
```

c) paste these lines under the comment for step 7c in the code. These lines will dynamically add our text to the screen on button click

```
image.src = img;
document.getElementById('img').innerHTML = "";
document.getElementById('img').appendChild(image);
document.getElementById('dialogue').innerHTML = "";
```

```
        document.getElementById('dialogue').append(text);
```

8) See the Story Stylesheet to change the style of the DialogueBox class

9) **javascript**: In the Story Javascript file, paste this code to hide the link to the next passage until dialogue is finished (this link has already been coded, the last line of the passage)

```
$(document).on(':passagedisplay',function(){
        // hide text
        $('#next').hide();
});
```

play the story

Passage #5 (next3)
Add an image as we've done previously, then add to the narrative and create a link to a new passage named next4

NOTE: This passage contains a <<script>> macro that illustrates an example of how to display an element on the screen for a defined time, then fade the element out when the time is up.

Passage #6 (next4)
Add an image as we've done previously, then add to the narrative and create a link to a new passage named Lobby

This is where we begin the second half of the story at the Cafe

Part 2 (25 mins)

Passage #8 Lobby

a) Add an cafe image and give it the Images class

b) Set the following variables using Sugarcubes <<set>> macro *see slide 4*
kioskItem = "", cafeName = "Cafe Quarantine", currentItem = "", salesTax = 0.00, ordered = false, price = 0

c) Using an array of objects, create an inventory array $inventory of 10 items. Each Item should be an object that has the following keys and data types: name (integer), price (double), count (integer), onSale (boolean), waitTime (integer). *see slide 18-19*

d) Inside the MenuBoard div, fill in the <<for>> loop that iterates through every item in the inventory. Inside the loop, display the name of each item and its price. *see slide 19*

e) Inside the Kiosk div, inside the if statement <<if $inventory[$i].name == $kioskItem>> :

set the price variable equal to the price at the current Item (which is $inventory[$i]), then, below the end of the <<replace>> macro, deduct 1 from the count value of the current item, set currentItem equal to the name of the current item, set ordered equal to true, set salesTax equal to the price variable * 0.10

f) find the "create a receipt" comment at bottom of passage. Inside the <<replace>> statement, create your own receipt that displays the cafe name, and the values from the price & salesTax variables. Display the total as well (try to style this like a real receipt)

Try This: (20 mins)

Implement the following features for the cafe:

- Check to see if the user's kioskItem is in stock before you process the order
- Use the waitTime key from the item inventory to create a timer that displays on the screen until the time has elapsed (meaning the item is ready to serve)
- How would you allow users to order more than one item? (i.e. an array? Maybe a different form of input other than a textbox?)
- After the order has been made and the receipt is given, navigate to another room in the Cafe.
    - Implement how the story progresses as you navigate to this other room
    - Include more dialogue between characters
    - Include a surprise that pops up along the way