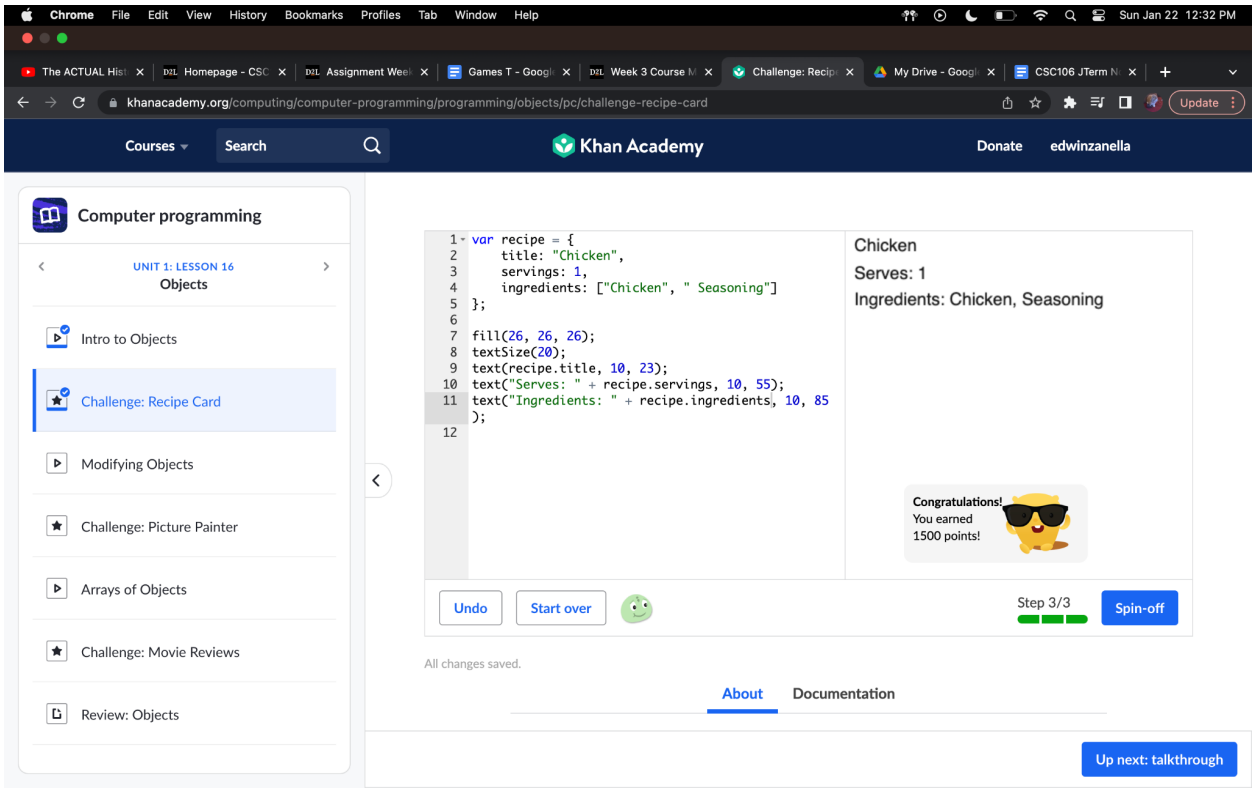
1.


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Sun Jan 22 12:32 PM
khanacademy.org/computing/computer-programming/programming/objects/pc/challenge-recipe-card
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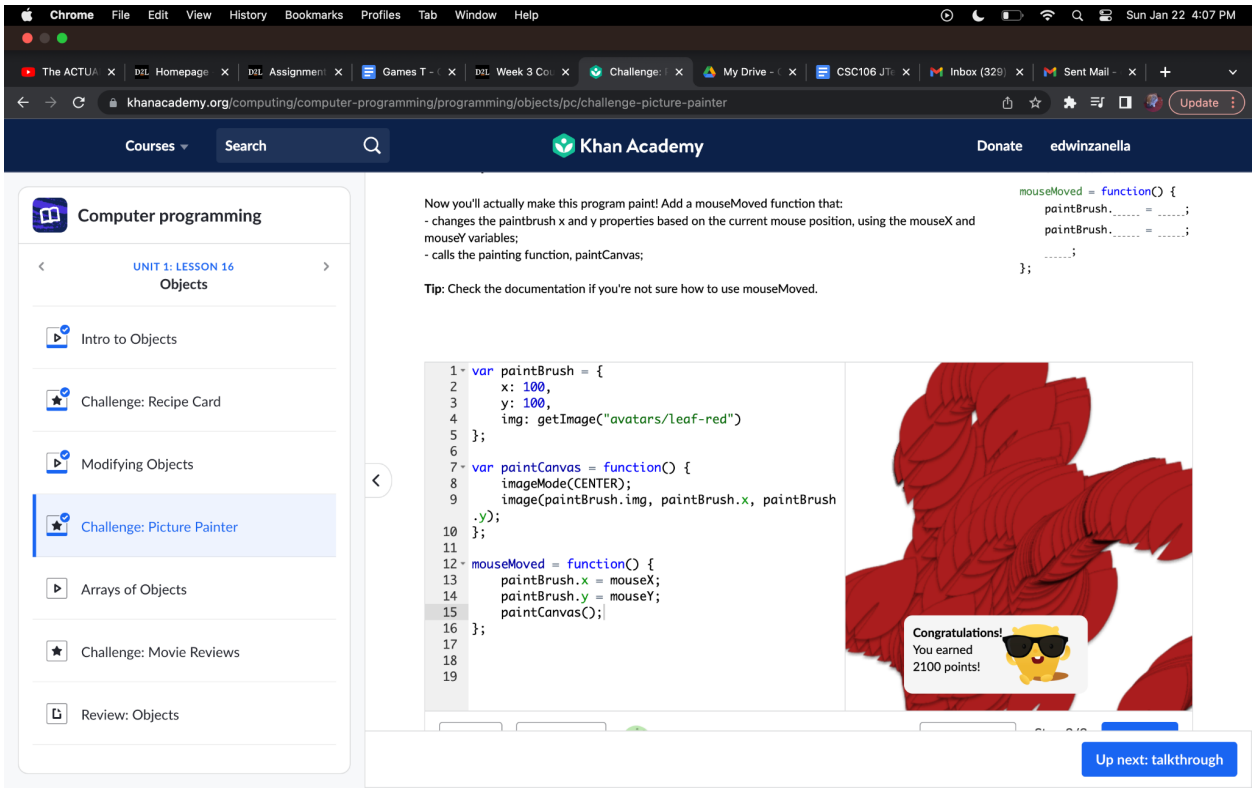
UNIT 1: LESSON 16
Objects
Intro to Objects
Challenge: Recipe Card
Modifying Objects
Challenge: Picture Painter
Arrays of Objects
Challenge: Movie Reviews
Review: Objects
var recipe = {
title: "Chicken",
servings: 1,
ingredients: ["Chicken", " Seasoning"]
};
fill(26, 26, 26);
textSize(20);
text(recipe.title, 10, 23);
text("Serves: " + recipe.servings, 10, 55);
text("Ingredients: " + recipe.ingredients, 10, 85
);
Chicken
Serves: 1
Ingredients: Chicken, Seasoning
Congratulations!
You earned
1500 points!
Undo
Start over
Step 3/3
Spin-off
All changes saved.
About
Documentation
Up next: talkthrough

2.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khanacademy.org/computing/computer-programming/programming/objects/pc/challenge-picture-painter
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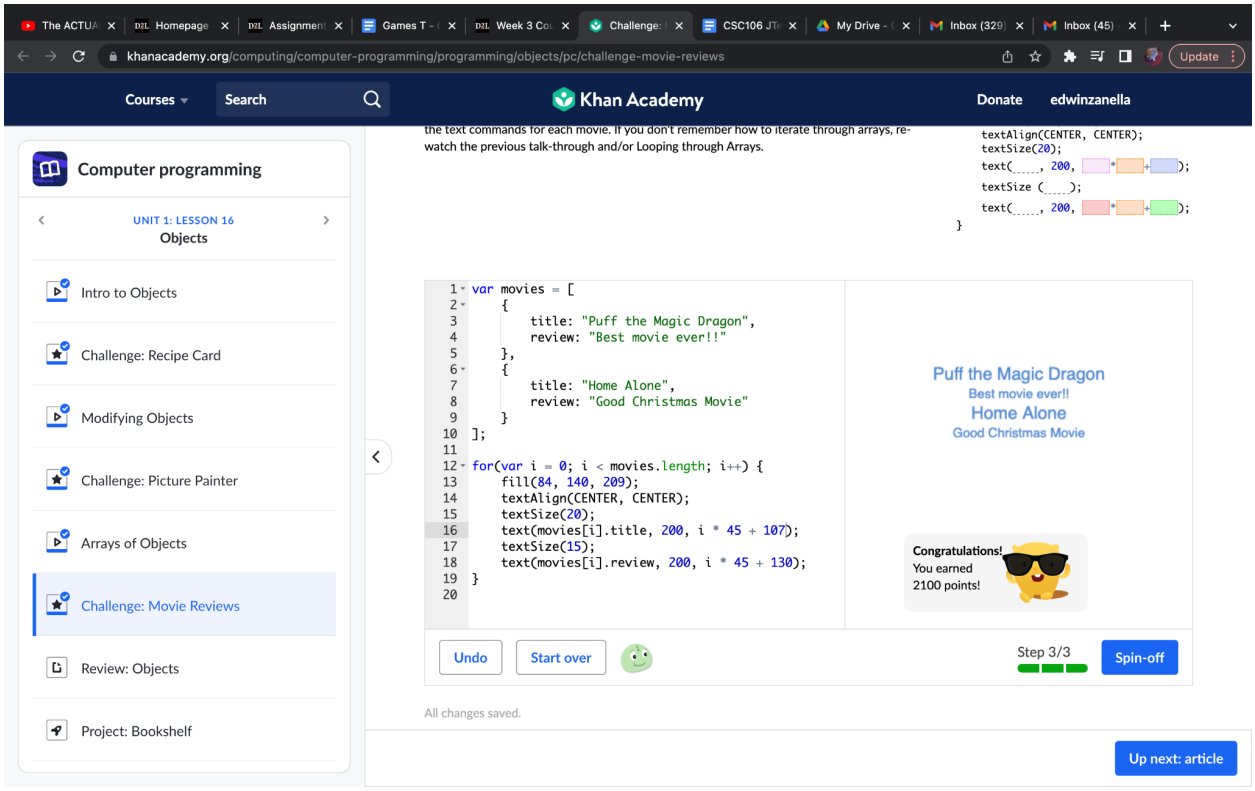
Challenge: Movie Reviews
Review: Objects
Now you'll actually make this program paint! Add a mouseMoved function that:
- changes the paintbrush x and y properties based on the current mouse position, using the mouseX and mouseY variables;
- calls the painting function, paintCanvas;
Tip: Check the documentation if you're not sure how to use mouseMoved.
mouseMoved = function() {
paintBrush._____ = _____;
paintBrush._____ = _____;
_____;
};
var paintBrush = {
x: 100,
y: 100,
img: getImage("avatars/leaf-red")
};
var paintCanvas = function() {
imageMode(CENTER);
image(paintBrush.img, paintBrush.x, paintBrush
.y);
};
mouseMoved = function() {
paintBrush.x = mouseX;
paintBrush.y = mouseY;
paintCanvas();
};
Congratulations!
You earned
2100 points!
Up next: talkthrough

3.


khanacademy.org/computing/computer-programming/programming/objects/pc/challenge-movie-reviews
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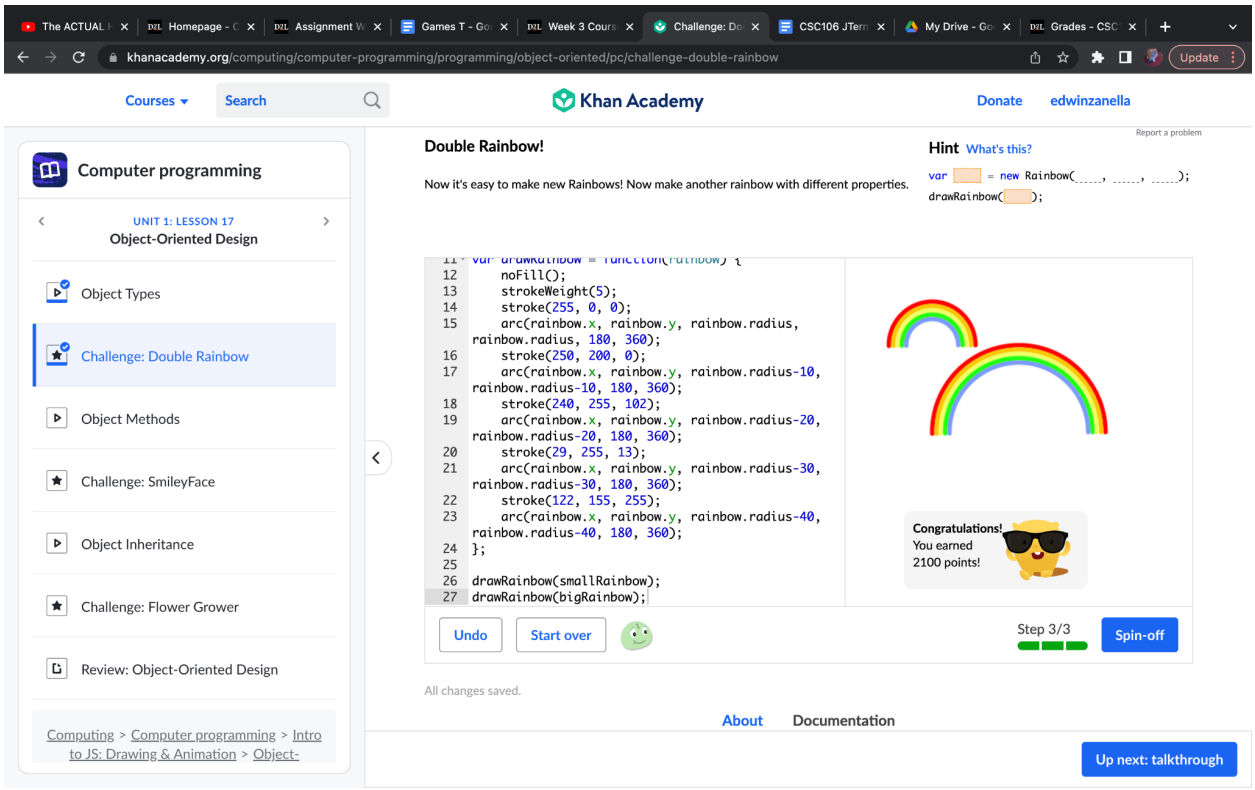
Challenge: Recipe Card
Modifying Objects
Challenge: Picture Painter
Arrays of Objects
Challenge: Movie Reviews
Review: Objects
Project: Bookshelf
the text commands for each movie. If you don't remember how to iterate through arrays, re-watch the previous talk-through and/or Looping through Arrays.
var movies = [
{
title: "Puff the Magic Dragon",
review: "Best movie ever!!"
},
{
title: "Home Alone",
review: "Good Christmas Movie"
}
];
for(var i = 0; i < movies.length; i++) {
fill(84, 140, 209);
textAlign(CENTER, CENTER);
textSize(20);
text(movies[i].title, 200, i * 45 + 107);
textSize(15);
text(movies[i].review, 200, i * 45 + 130);
}
Puff the Magic Dragon
Best movie ever!!
Home Alone
Good Christmas Movie
Congratulations!
You earned
2100 points!
Undo
Start over
Step 3/3
Spin-off
All changes saved.
Up next: article

4.


khanacademy.org/computing/computer-programming/programming/object-oriented/pc/challenge-double-rainbow
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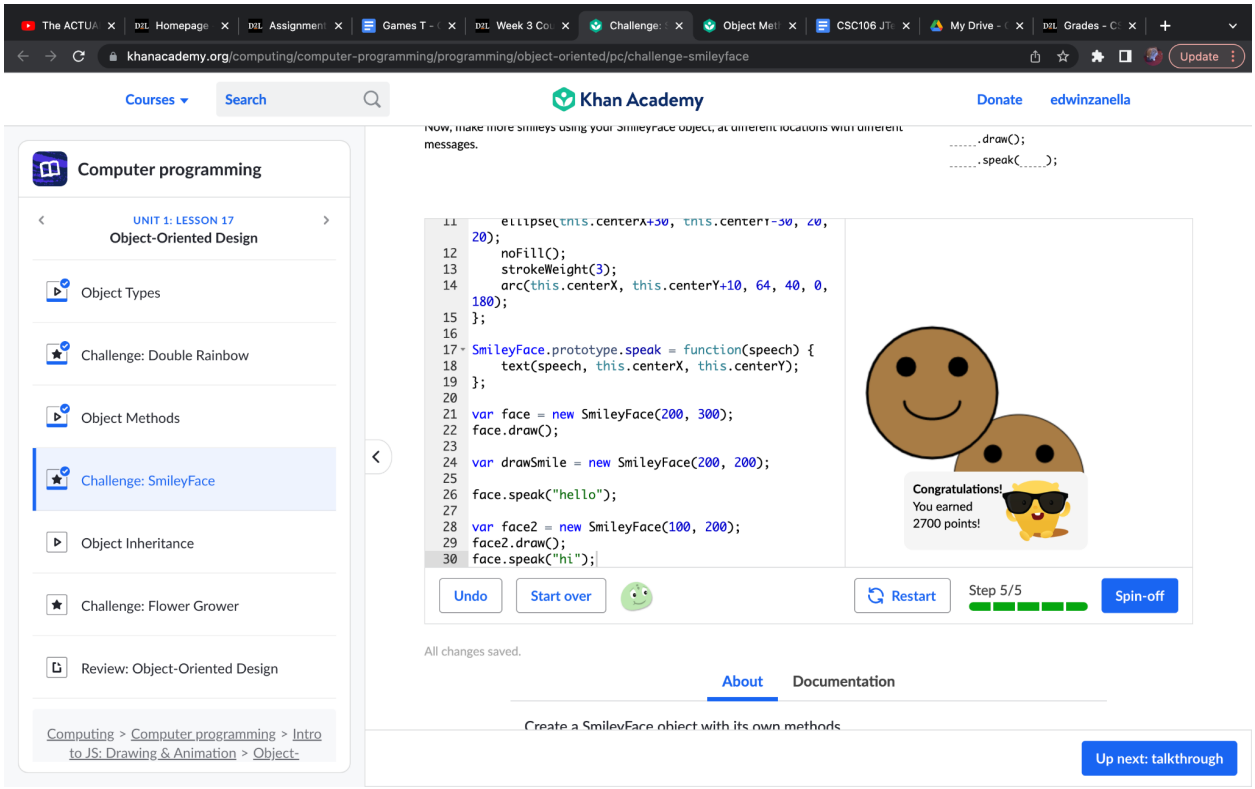
Object-Oriented Design
Object Types
Challenge: Double Rainbow
Object Methods
Challenge: SmileyFace
Object Inheritance
Challenge: Flower Grower
Review: Object-Oriented Design
Computing > Computer programming > Intro to JS: Drawing & Animation > Object-
Double Rainbow!
Now it's easy to make new Rainbows! Now make another rainbow with different properties.
Hint What's this?
var = new Rainbow(, ,);
drawRainbow();
noFill();
strokeWeight(5);
stroke(255, 0, 0);
arc(rainbow.x, rainbow.y, rainbow.radius, rainbow.radius, 180, 360);
stroke(250, 200, 0);
arc(rainbow.x, rainbow.y, rainbow.radius-10, rainbow.radius-10, 180, 360);
stroke(240, 255, 102);
arc(rainbow.x, rainbow.y, rainbow.radius-20, rainbow.radius-20, 180, 360);
stroke(29, 255, 13);
arc(rainbow.x, rainbow.y, rainbow.radius-30, rainbow.radius-30, 180, 360);
stroke(122, 155, 255);
arc(rainbow.x, rainbow.y, rainbow.radius-40, rainbow.radius-40, 180, 360);
};
drawRainbow(smallRainbow);
drawRainbow(bigRainbow);
Congratulations!
You earned
2100 points!
Undo
Start over
Step 3/3
Spin-off
All changes saved.
About
Documentation
Up next: talkthrough

5.


khanacademy.org/computing/computer-programming/programming/object-oriented/pc/challenge-smileyface
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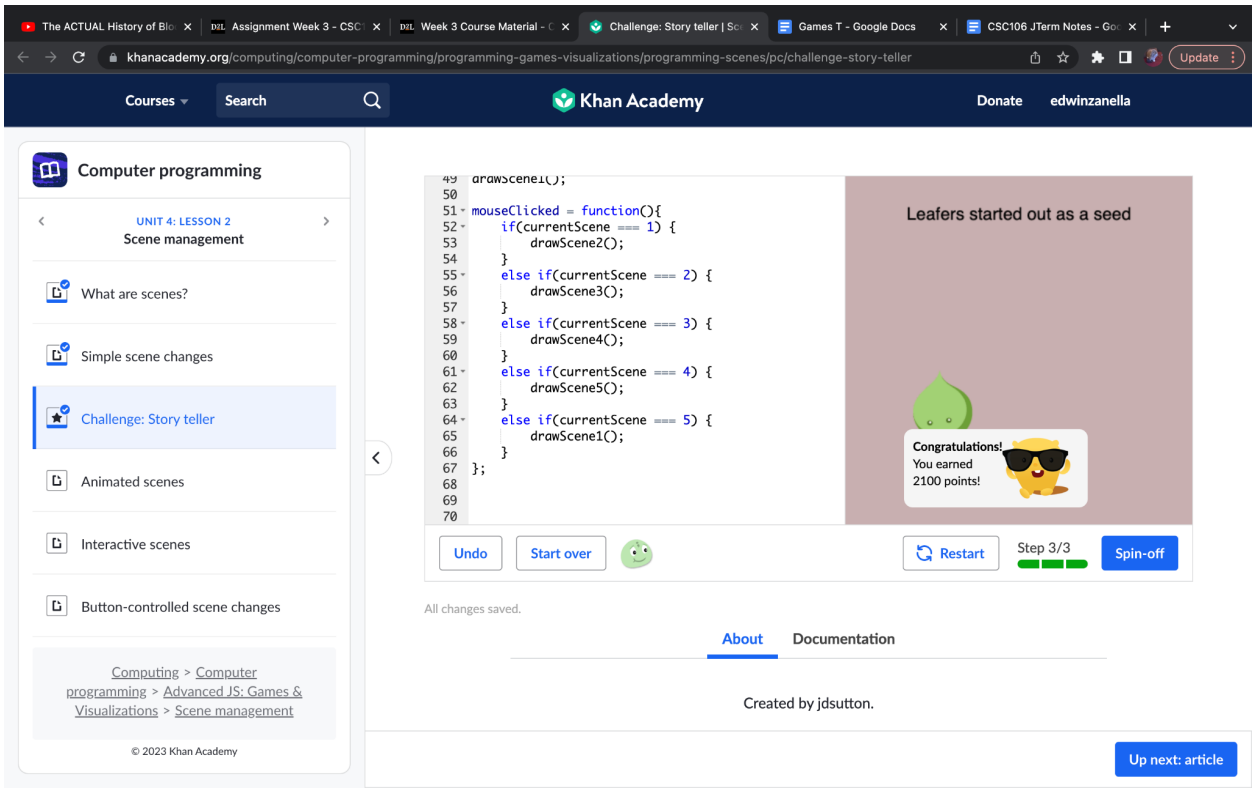
Object-Oriented Design
Object Types
Challenge: Double Rainbow
Object Methods
Challenge: SmileyFace
Object Inheritance
Challenge: Flower Grower
Review: Object-Oriented Design
Computing > Computer programming > Intro to JS: Drawing & Animation > Object-
Now, make more smileys using your SmileyFace object, at different locations with different messages.
.draw();
.speak(____);
ellipse(this.centerX+30, this.centerY-30, 20, 20);
noFill();
strokeWeight(3);
arc(this.centerX, this.centerY+10, 64, 40, 0, 180);
};
SmileyFace.prototype.speak = function(speech) {
text(speech, this.centerX, this.centerY);
};
var face = new SmileyFace(200, 300);
face.draw();
var drawSmile = new SmileyFace(200, 200);
face.speak("hello");
var face2 = new SmileyFace(100, 200);
face2.draw();
face.speak("hi");
Congratulations!
You earned
2700 points!
Undo
Start over
Restart
Step 5/5
Spin-off
All changes saved.
About
Documentation
Create a SmileyFace object with its own methods
Up next: talkthrough

6.


khanacademy.org/computing/computer-programming/programming-games-visualizations/programming-scenes/pc/challenge-story-teller
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UNIT 4: LESSON 2
Scene management
What are scenes?
Simple scene changes
Challenge: Story teller
Animated scenes
Interactive scenes
Button-controlled scene changes
Computing > Computer programming > Advanced JS: Games & Visualizations > Scene management
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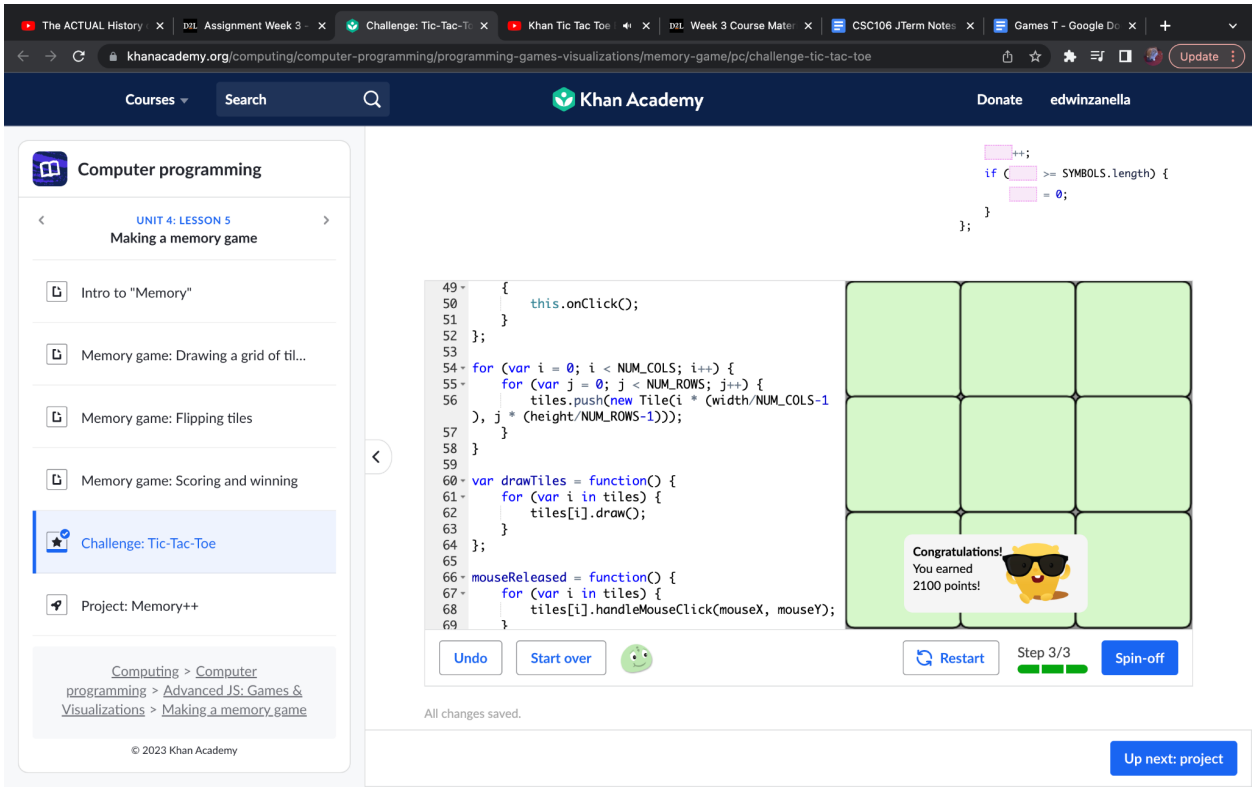
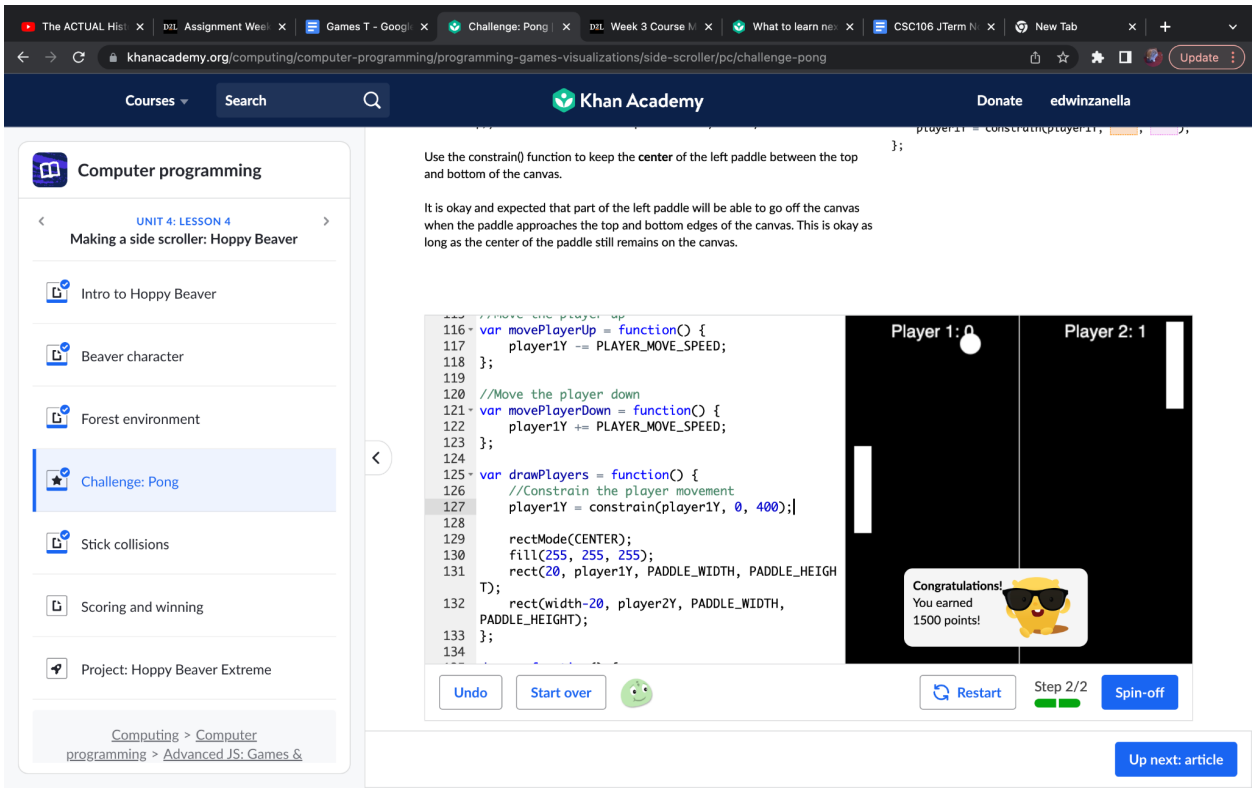
drawScene1();
mouseClicked = function(){
if(currentScene === 1) {
drawScene2();
}
else if(currentScene === 2) {
drawScene3();
}
else if(currentScene === 3) {
drawScene4();
}
else if(currentScene === 4) {
drawScene5();
}
else if(currentScene === 5) {
drawScene1();
}
};
Leafers started out as a seed
Congratulations!
You earned
2100 points!
Undo
Start over
Restart
Step 3/3
Spin-off
All changes saved.
About
Documentation
Created by jdsutton.
Up next: article

7. 

8. 

9. https://www.khanacademy.org/computer-programming/spin-off-of-hoppy-beaver-with-win-state/4523622438060032

10. https://youtu.be/sp2cDMiV2Fg

11. https://docs.google.com/document/d/1hbFmhHIxLGEEooj-I4qgJnQ-Pce19zezxy4FucUHMT4/edit