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project-1 / requirements.md



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d5be506 3 days ago

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GENERAL ASSEMBLY

Project #1: The Game



Attendance

There are no full day classes during project weeks, but we do expect you to be working on your project daily and be available during the usual class times (10AM - 6PM Eastern) for TA hours or any meetings with instructors as needed.

There are **no attendance checks** during this project week, except:

- **Monday, Nov 23:** Project presentation day! You're required to be in the class zoom starting at 10:00 AM Eastern

Failure to make an attendance check will result in an unexcused absence for both morning and afternoon for that day.

Project Details

Mandatory To Pass:

MVP - Minimum Viable Product

Your game must meet these requirements:

1. Built with HTML, CSS and JavaScript (this game will be played using the DOM, not the console)
2. Hosted on Github pages
3. Commits to Github every day
4. A `README.md` file with explanations of the technologies used, the approach taken, a link to your live site, installation instructions, unsolved problems, etc.

[Here is a great guide on how to write a readme](#)

Game must have:

1. **Must be a two player game** (either against the computer or against another player)
 - Example: Blackjack: A player plays against the dealer. The dealer is the computer
 - Example: Connect Four: Two players pass the game between themselves to take turns
2. **A win state** - a way for the player to win the game
 - High score can be considered a win state
3. **A lose state** - a way for the player to lose the game
 - Example: Blackjack - a player must be able to lose all of their money with losing hands and cannot play if their bankroll is at 0
 - Example: Connect Four - the other player has won or there are no possible plays left

4. A way to keep playing if the game is not over
5. **Multiple rounds to play** - a round must begin, end, and there must be a way to check if the game should continue or the overall game is won or lost
 - Example: Blackjack: a player takes turns playing a hand versus a computer - the player's hand can either win, lose or tie the dealer. If the player has enough money in their bankroll they can keep playing. A player must be able to win several rounds and increase their bankroll
 - Example: Connect Four: two (non-computer) players take turns adding chips to the board. The game will check if a player won or if the board is full and there are no more plays possible. A player gets four chips in a row (vertically or horizontally) - one person wins, one loses, there are no further plays in this case

Stretch Goals (Not Mandatory):

Recommended Features

- A way to reset the board and play again
- CSS to give your game a personal and fun style
- Responsive mobile design
- Work with your instructor to determine additional stretch goals

Make A New Repo

! You will be using GitHub, **not** GitHub Enterprise!

! **Do not** begin your project within a class repo.

! **Do not** clone your project into a class repo.

1. After your project has been approved, [make a new Github repo for your project](#). Remember to keep your repo set to public so you can deploy it.
2. From there, follow the instructions for a Project Site outlined by Github themselves on [github.io](#) To get to the correct instructions, select 'Project site' and then 'Start from scratch'

Ready to get started? Build your own site from scratch or generate one for your project.

You get one site per GitHub account and organization, and unlimited project sites. Let's get started.

User or organization site **Project site**

?

Use a theme, or start from scratch?

You have the option to start with one of the pre-built themes, or to create a site from scratch.

Choose a theme **Start from scratch**

Note: You can create your index.html on Github or you can create it from the terminal (like we've done in class) and push it up, but you will need at least an index.html to deploy your site.

► Extra: want your own domain name?

💡 Technical Demonstration

All projects will be presented to the class. Your presentation should:

- Be approximately 5 minutes in length
- Show off all features of the app
- Explain the technical details
- Explain the technical challenges
- Explain which improvements you might make You will be sharing your game and your code. Be prepared to answer questions from the instructors and other students.

Meetings with instructors

An instructor will contact you to setup a meeting time to approve your project.

Monday, Nov 16 - Mandatory

You will meet with an instructor for 15 minutes to get your game idea approved. Be sure to write out what features you will need to build in order to meet MVP and some stretch goal ideas.

How to Submit Your Project

Your project is due on Monday, Nov 23rd at 10:00 AM ET. You will present your project and show your code to classmates and instructors.

✓ Add your project to [this google sheet](#). Note that this will be the order you present your projects!

! Where to go for help during project week

1. Seek out help online
2. Seek out help with your classmates
3. Seek out help with our class TA

! TA Hours

1. Kay - Tuesdays: 8 - 10 pm ET || 5 - 7 pm PT [seir-margaret-evan-office-hours](#)
2. Evan - Saturdays: 2 - 4 pm ET || 11 am - 1 pm PT [seir-margaret-kay-office-hours](#)
3. Aegean - Sundays: 4 - 9 pm ET || 1 - 6 pm PT [seir-officehours](#)

Suggested Ways to Get Started

- **Wireframe** Make a drawing of what your app will look like in all of the stages of the game (what does it look like as soon as you log on to the site? What does it look like while the player is playing? What does it look like when the player wins / loses?).

- **Break the project down into different components** (data, presentation, views, style, DOM manipulation) and brainstorm each component individually.
- **Commit early, commit often.** Don't be afraid to break something because you can always go back in time to a previous version.
- **Consult documentation resources** (MDN, jQuery, etc.) at home to better understand what you'll be getting into.

Think about...

- **Creativity**

Did you add a personal spin or creative element into your project submission?

Did you deliver something of value to the end user?

- **Code Quality**

Did you follow code style guidance and best practices covered in class, such as spacing, indentation, modularity, and semantic naming? Did you comment your code as your instructors have in class?

- **Problem Solving**

Are you able to defend why you implemented your solution in a certain way?

Can you demonstrate that you thought through alternative implementations?

Useful Resources

- [MDN Javascript Docs](#)
- [jQuery Docs](#)
- [GitHub Pages](#)
- [Trello](#)

Inspiration - Projects by Previous SEI Students

- [CeleZum](#)
- [Baseball Triva](#)
- [Blackjack](#)
- [Connect Four](#)
- [Pan Dulce Connect Four](#)
- [Simon](#)
- [Savage Sailors](#)
- [Ancient Wizards](#)

- [Trouble in Tribble Town](#)
- [Harvest Game](#)

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project-1 / project-worksheet.md



misteroh Update project-worksheet.md

deda14a 2 days ago

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Project Overview

Key Project 1 Dates

- Nov 16 - Project Approvals
- Nov 17 - Nov 22 - Project Week! We will not meet during normal class times. You will be meeting with your squad at the times instructed by your Squad lead.
- Nov 23 - Project Presentations

Project Schedule

This schedule will be used to keep track of your progress throughout the week and align with our expectations.

You are **responsible** for scheduling time with your squad to seek approval for each deliverable by the end of the corresponding day, excluding Saturday and Sunday .

| Day | Deliverable | Status |
|-------|--|------------|
| Day 1 | Project Description | Incomplete |
| Day 1 | Wireframes / Priority Matrix / Timeline | Incomplete |
| Day 3 | Core Application Structure (HTML, CSS, etc.) | Incomplete |
| Day 4 | MVP & Bug Fixes | Incomplete |

| Day | Deliverable | Status |
|-------|---------------|------------|
| Day 5 | Final Touches | Incomplete |
| Day 6 | Present | Incomplete |

Project Description

Use this section to describe your final project and perhaps any links to relevant sites that help convey the concept and\or functionality.

Wireframes

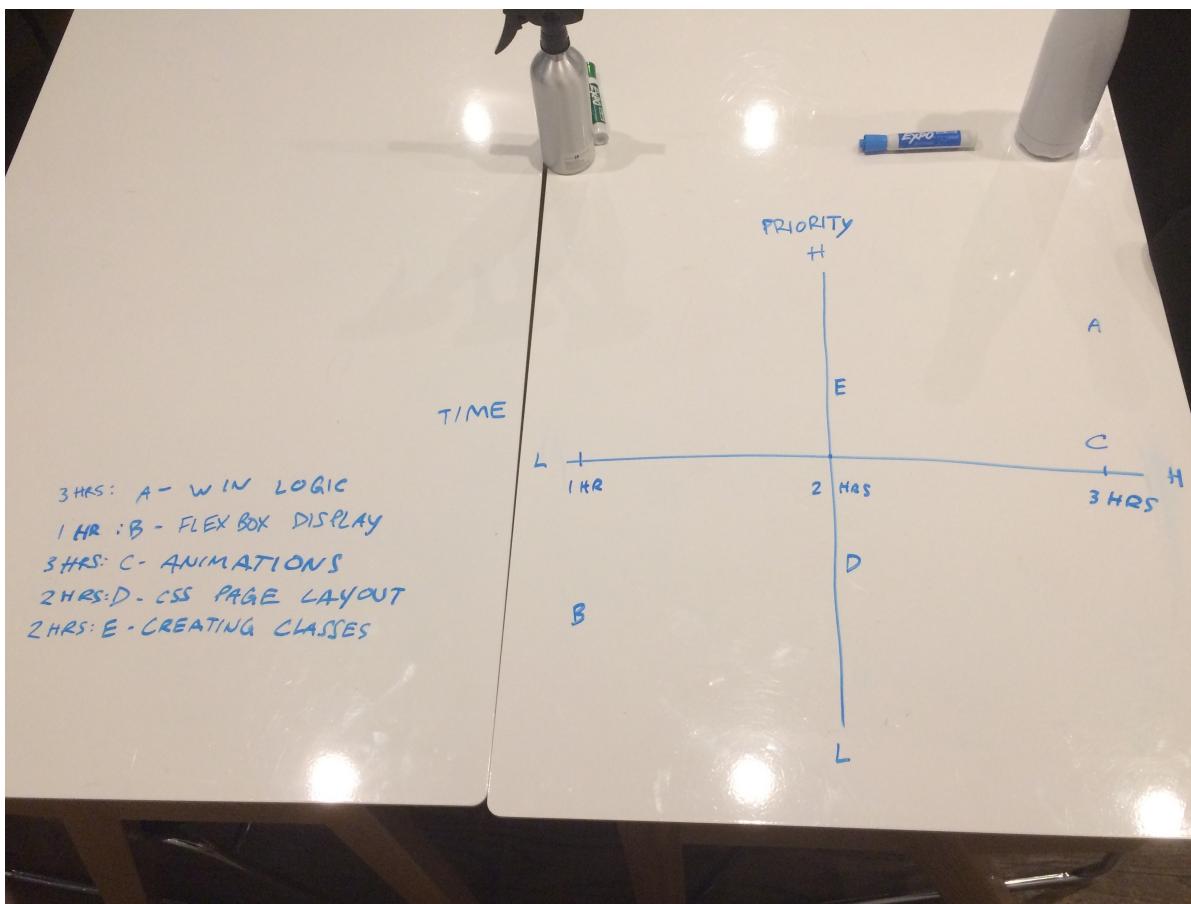
Upload images of wireframe to clouinary and add the link here with a description of the specific wireframe. Do not include the actual image and have it render on the page.

- [Mobile](#)
- [Desktop](#)

Wireframing Resources:

- [Mockflow](#)
- [Figma](#)

Time/Priority Matrix



Include a full list of features that have been prioritized based on the Time and Priority Matix. This involves drawing a a square. In the middle of the square, on the x axis draw a line. The most left part of the line should start with 0hrs and the end of the line should include 2hrs. This line will be used to estimate how much time any one feature will take to complete.

Now draw a vertical line on the y axis. The top of this line should have High and the bottom Low . This line will be used to assign a priority to to each feature you wish to include in the project.

Now create a separate list starting with A and assign it one of the features. Continue to assign each feature a letter. Once complete add each letter to the matrix assigning based on what your feel it's priority is an how long it will take to implement. If any one feature takes longer than 2hrs to complete than break it down into smaller tasks and reassign them a new letter.

Once complete tally up the time and determine how long the project will take to complete. Now break those features into MVP and PostMVP so you can guarantee you will have a fully functioning project to demo.

MVP/PostMVP - 5min

The functionality will then be divided into two separate lists: MVP and PostMVP. Carefully decided what is placed into your MVP as the client will expect this functionality to be implemented upon project completion.

MVP (examples)

- Add game player stats to the dom
- Render html on the page
- Allow user to choose player
- Restart the game when the user loses

You should have at least 10 items here

PostMVP

- Anything else that is not MVP

Functional Components

Based on the initial logic defined in the previous sections try and breakdown the logic further into functional components, and by that we mean functions. Try and capture what logic would need to be defined if the game was broken down into the following categories.

Time frames are also key in the development cycle. You have limited time to code all phases of the game. Your estimates can then be used to evaluate game possibilities based on time needed and the actual time you have before game must be submitted. It's always best to pad the time by a few hours so that you account for the unknown so add an additional hour or two to each component to play it safe.

MVP

| Component | Priority | Estimated Time | Time Investsted | Actual Time |
|-------------------------|----------|----------------|-----------------|-------------|
| Modal | H | 1hr | 1.5hr | -hr |
| Carousel | H | 3hr | -hr | -hr |
| Adding Form | H | 1.5hr | -hr | -hr |
| Other sections and flex | M | 4hr | 2hr | -hr |

| Component | Priority | Estimated Time | Time Invested | Actual Time |
|----------------------------------|----------|----------------|---------------|-------------|
| Game Player HTML & CSS | H | 3hrs | 2hr | -hr |
| Create Classes in JS for Enemies | H | 3hr | -hr | -hr |
| Game play main function | L | 1hr | -hr | -hr |
| Total | H | 15.5hrs | -hrs | -hrs |

PostMVP

| Component | Priority | Estimated Time | Time Invested | Actual Time |
|------------------------|----------|----------------|---------------|-------------|
| Play game for 3 rounds | L | 3hr | -hr | -hr |
| Interactive Banner | M | 4hr | -hr | -hr |
| Materialize | H | 4hr | -hr | -hr |
| Bootstrap | H | 4hr | -hr | -hr |
| Make own icon | L | 4hr | -hr | -hr |
| Total | H | 20hrs | -hrs | -hrs |

Additional Libraries

Use this section to list all supporting libraries and thier role in the project.

Code Snippet

Use this section to include a brief code snippet of functionality that you are proud of an a brief description

```
function reverse(string) {
    // here is the code to reverse a string of text
}
```

Issues and Resolutions

Use this section to list of all major issues encountered and their resolution.

SAMPLE.....

ERROR: app.js:34 Uncaught SyntaxError: Unexpected identifier

RESOLUTION: Missing comma after first object in sources {} object

Recollection

A Visual Memory game!

Player flips two cards that start face down ^(randomized) if they are a pair player gets pts. if not [next player goes] or [computer goes] or [player goes again]

two player: who ever gets a pair goes again until they miss.

round winner: most pairs

game winner: most points



Computer: randomly picks w/ same rules

single player: against a clock, each round increases difficulty.

round winner: all pairs round lose: clock out
player only play round 3 times before GO
game winner: all levels complete

data

presentation

views

style

Dom Manipulation

- Create class for pairs (name, difficulty, color)
- if $x = y \rightarrow$ add pts
- When no more cards \rightarrow win round
- when no more rounds \rightarrow win game
- (clock count down) if clock is out, lose
- 2 player if player one = more pts   NO more cards

↓
Player 1 win

Recollection

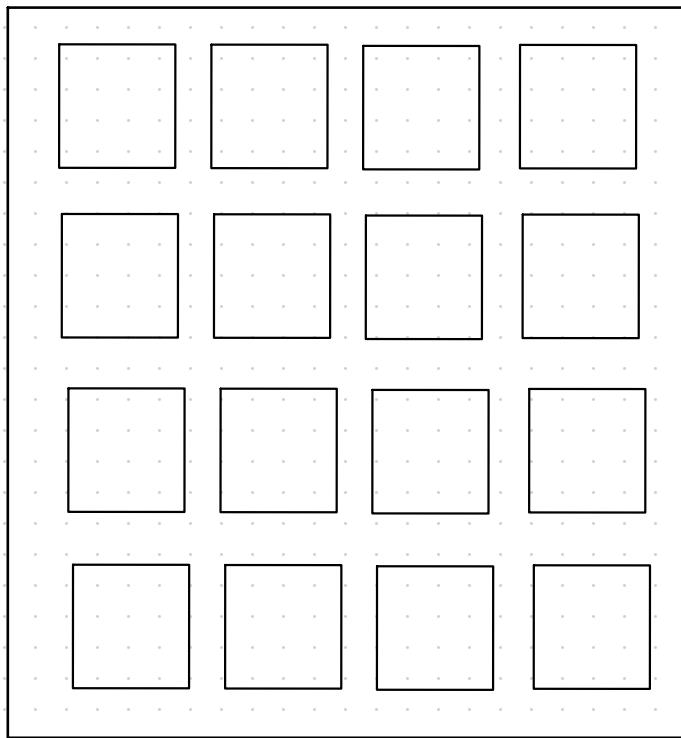
Player 1: /18

reset

Player 2: /18

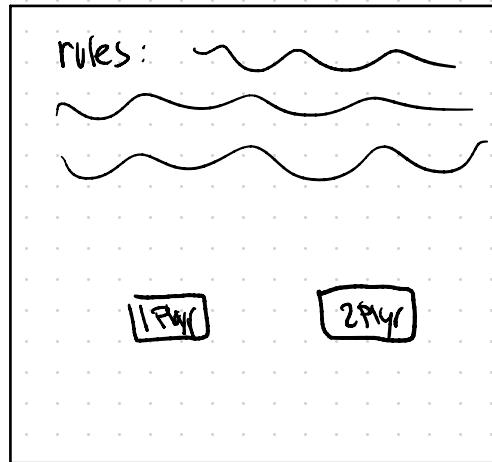
Timer: 30

level 1 / 6



- add difficulty
 - more cards
 - b/w images

Modal



1 Player

2 Player

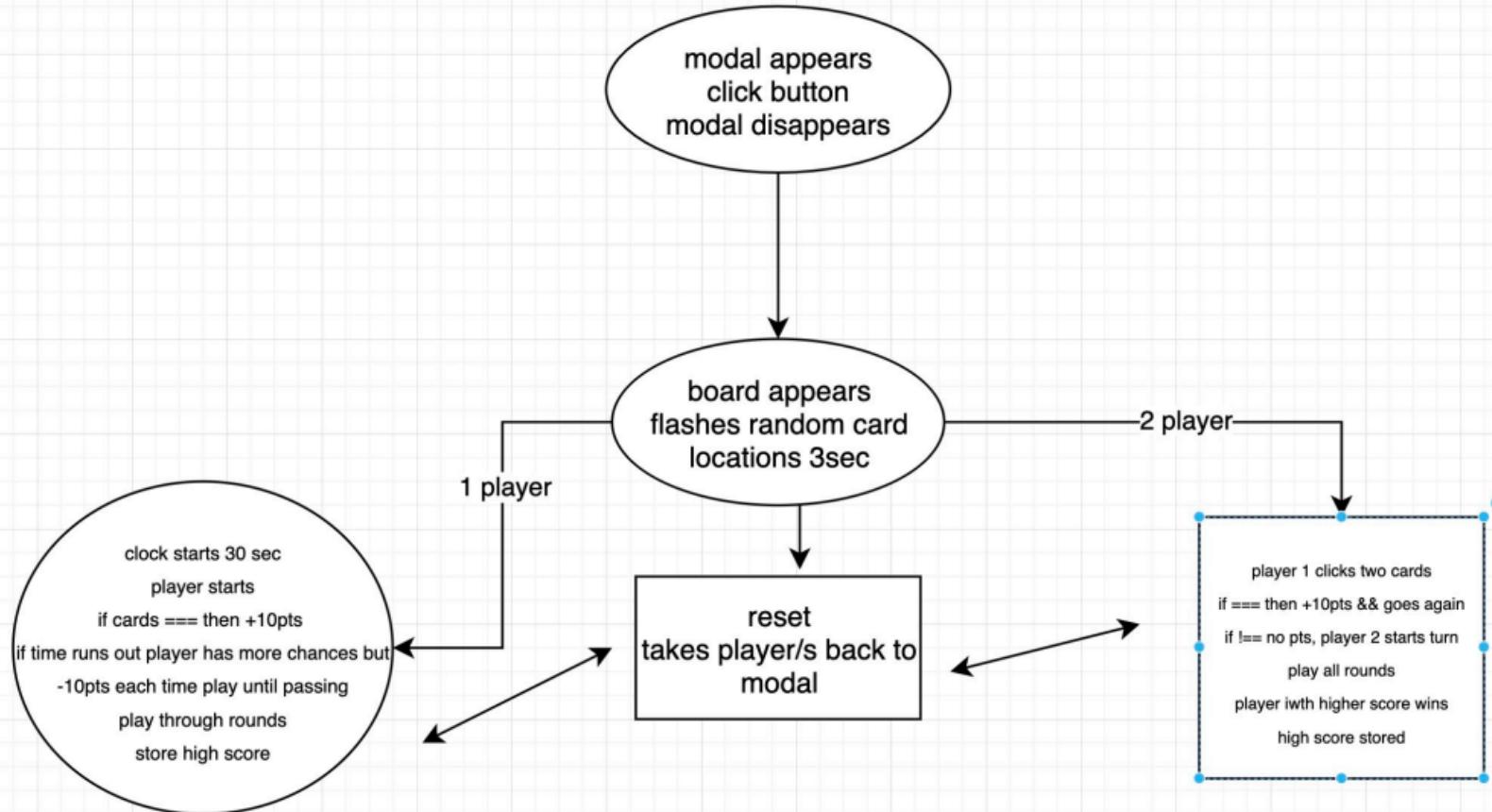
→ buttons for 1 or 2 player

reset

→ reset game to modal page

Game over - one player ≥ -100

as time increases 5 sec
decrease score -10
starts at diff per round



As time increases 10 sec player loses 10 pts
Start with 1000pts
-100pts GAMEOVER
Every round pts do not start over
20pts for every pair

modal
2 player
player 1 if images === then points and go again
~~player 2 goes after player 1 misses~~

1. game board + function of pairs
timer for 1 player modal

'win' when go through all rounds, stores high score

Modal 2 player option Rules
2. 2 player option
winner whoever has more points at end of the rounds, stores high score

+20PTS
if images === then + points
if images !== start new turn

if all images are paired player moves to next round

images class list
click, image appears

~~timer for 1 player
set an interval, if time is up then restart round~~

~~if round restart -pts~~

3. reset (button)
card flip animation

reset if clicked take toggle modal /start over

if card is clicked
card flip animation

MVP

| Component | Est. Time | Priority | Actual |
|-------------------------------------|-----------|----------|---------------------|
| models | 3hr | H | only did 1 - 10 min |
| css + HTML | 5hr | H | ~ 2 - 3 |
| Card creation | 2hr | H | 10 + |
| Resets | 2hr | L | less than 1 |
| Card shuffle + functions | 15 hr | H | ~ 20 + |
| randomize cards | 3hr | H | less than 1 |
| DOM | 5hr | H | 5 + |
| Card flip Animation | 2 hr | L | 1 hr |
| function (rounds) | 10 hr | H | — |
| round winner functions | 5hr | L | — |
| HS (win) function | 5hr | H | — |
| round timer | 3hr | H | 1 + |
| Game over | 2hr | M | — |
| TOTAL | 60hr | | — |

10hr/day

Schedule

| Day | Deliverable | Status |
|-------|-----------------------------------|------------------------|
| Day 1 | Timeline / wireframe work flow | Complete |
| Day 2 | Card functions | incomplete TOOK 2-3 |
| Day 3 | timer | Complete |
| Day 4 | round functions | incomplete |
| Day 5 | CSS xHTML | complete |
| Day 6 | extra | |
| Day 7 | extra | |

```
/* =====
game plans
=====*/
//one player
//page opens => modal pops up to tell directions
//click continue => toggle to game board page level 1
//player starts with 200(?) points
//player clicks play
//timer begins to increase, every 5(?) seconds -10(?) points
//when card is clicked it shows card
//if first card clicked then second card is clicked and is === then they stay face up and add 10 points
//if first card is clicked then second card is clicked and is !== then they both flip back over after 1.5 seconds
// if first card === true
//if points === -100 GAMEOVER, LOSE
//once all cards are face up GAME OVER
//shuffle cards every game
```

```
=====extra parts for later=====
//once all cards are face up then clock stops, level is complete modal pops up, click continue to next level
//if there are no more levels then GAMEOVER, WIN
//button to make board flash for two seconds before player hits play but -30pts
//first modal → Put in name
```

❑ need to create front and back of card

```

class Card {
  constructor {name, roundnum, front, back} {
    this.name = name,
    this.roundnum = roundnum
    this.front = front,
    this.back = back
  }
  const card = new Card (name, 1, front, back)
  const card2 = new Card (name, 1, front, back)
}
  
```

Questions

for cards use class?

or divs in HTML?

How do I get class into board?

style cube to randomise location?

for rounds divs in body?

(class) difficulty = which round
make full card or make in CSS?

(Back == Back - match)

Start/Stop button for timer instead of
stopping at yours?

call class / only one / array of objects
loop array